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Pneumatics

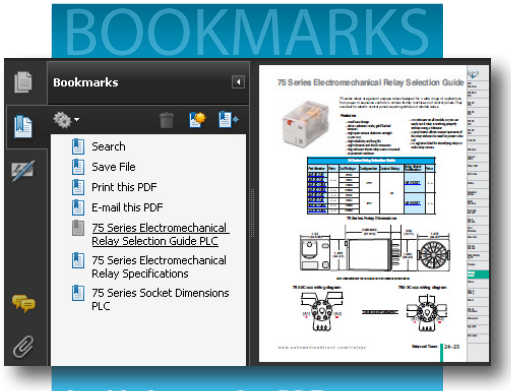
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Pneumatic Directional Control Valves and accessories

NITRA™ pneumatic directional control solenoid, pilot and manual valves are available in a wide variety of configurations to meet a broad range of pneumatic control applications.

- AVP series stacking valves
- AVS series solenoid, air pilot and manual valves
- BVS series small modular solenoid valves
- CMV series modular solenoid valves
- CVS & CVR series manual valves
- Solenoid cables and connectors
- Solenoid valve exhaust silencers and accessories





Pneumatic Air Preparation (FRL - Filters, Regulators, Lubricators)

NITRA™ pneumatic air filters, regulators and lubricators are available in a wide variety of port sizesto meet a broad range of pneumatic air supply filtration, regulation and lubrication applications.

- A series modular filters, regulators, lubricators, soft-start/dump valves and manual locking shutoffs
- B series instrument grade filter-regulators
- C series precision regulators
- D series high precision regulators
- E series miniature high precision regulators

Total Air Prep (TAP Series)

The NITRA Total Air Prep (TAP) unit is the latest technology for compressed air preparation. A single, high flow unit contains an automatic drain air filter with clogged filter indicator, relieving regulator, lockable shut-off valve, pressure gauge and air dump. Electric models also have an adjustable electric soft start / shutoff valve and an adjustable pressure switch with indicator LEDs. Interchangeable inlet and outlet port inserts allow the TAP to easily mount to most pipe sizes.

- 0-120 psi operating range
- Includes20 micron air filter with automatic drain
- Optional 5 micron filter element sold separately
- Optional panel mounting kits sold separately



Pneumatic Air Cylinders and Position Switches

A-Series non-repairable round body cylinders

These cylinders are an ideal choice for a host of applications in a broad range of industries. Dimensionally interchangeable with leading cylinder manufacturers, the NITRA A-Series is perfect for replacement applications as well as new designs.

C-Series compact pneumatic air cylinders

This series of compact stainless steel round body cylinders includes bore sizes from 9/16" to 3" and stroke lengths from 1/4" to 4" that meet applications where space is a concern.

D-Series heavy duty air cylinders (NFPA) for abusive conditions

These heavy duty cylinders combine NFPA interchangeability and high quality components to offer excellent performance and long service life, even in the most severe conditions.

E-Series dual guide rod air cylinders

Pneumatic guided actuators with dual guide rods, bronze bushings, extruded aluminum housing and switch mounting tracks.

F-Series all stainless steel cylinders

This series of non-repairable stainless steel round body cylinders meet a broad range of harsh duty applications.

G-Series heavy duty ISO 15552 cylinders

These heavy duty cylinders have extruded aluminum bodies for easy switch mounting and ISO 15552 interchangeability for a robust, good-looking design.

H-Series compact extruded body air cylinders

This series of compact aluminum extruded body cylinders have metric dimensions and are great for applications where space is a concern.

CPS Series of universal position switches

With nine styles (including IP69K) that fit most major cylinder brands, these switches are manufactured with solid state reliability for a longer life. Compact and easy to mount on round body, tie rod, and extruded body cylinders, they have LED switch status indication and models offer integral cable with M8 or M12 wiring connector or wire leads.





Fittings and Flow Control

(inches and metric sizes available)

Fittings include:

Many popular styles also available in stainless steel

- Bulkhead unions
- Union straight
- Union reducers
- Union Tee
- Union elbow
- Union Y
- Union cross
- Union triple branch
- Quick-disconnect straight and swivel hose couplings
- Brass adapter fittings
- Special purpose
- Brass hose barbs
- Brass hose mendors

Flow Control include:

- Manual hand valve
- Stop
- Check
- Meter-in flow control
- Meter-out flow control
- Inline flow control

Hose Clamps include:

- Plated Steel
- Stainless Steel
- Crimping Tools

Polyurethane (PUR) Tubing



- Inch and metric tubing sizes available
- Seven standard colors: Black, blue , clear, red, yellow, and clear blue
- Plus UV stabilized available in dark green
- 100 foot and 500 foot package sizes
- Strong, flexible and kink resistant
- Made in the USA

Nylon 12 Tubing



- Inch and metric tubing sizes available
- Five colors – black, blue , natural, red and yellow
- 100 foot and 500 foot package sizes
- High working pressure and temperature/chemical resistance
- Made in the USA

Nylon Coiled Hose



- Heavy duty nylon has low moisture absorbtion rate
- Coiled hose allows operator freedom of movement and uncluttered work area
- Lightweight and ecomical
- Replacement swivel fittings available
- Hose kits for custom lengths
- Made in the USA

PTFE Pneumatic Tubing



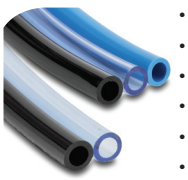
- Inch and metric sizes available
- Natural color
- 100 foot package size
- High working pressure and temperature/chemical resistance
- Made in USA

Polyurethane Coiled Tubing - Single and Bonded Multi-Tube



- Inch and metric sizes available
- Contrasting colors on double and triple coils
- Three working lengths for each size
- Strong, flexible and kink resistant
- Made in the USA

Bonded Straight Polyurethane Tubing



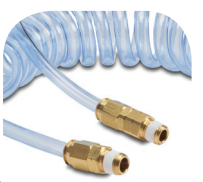
- Inch and metric sizes available
- Contrasting colors
- Bonding process maintains tubing geometry
- 50-foot package size
- Strong, flexible and kink resistant
- Made in the USA

Reinforced Polyurethane Hose



- 1/4" and 3/8" inside diameters
- 25 and 50-foot package lengths available
- Clear blue color
- Lighter weight compared to rubber hose
- Strong, flexible and kink resistant
- Made in the USA

Polyurethane and Reinforced Polyurethane Coiled Hose



- 1/4" and 3/8" inside diameters
- 8, 12 and 16-foot working lengths
- Clear blue color
- Strong, flexible and kink resistant
- Made in the USA

Aluminum and Stainless Steel Pneumatic Manifolds



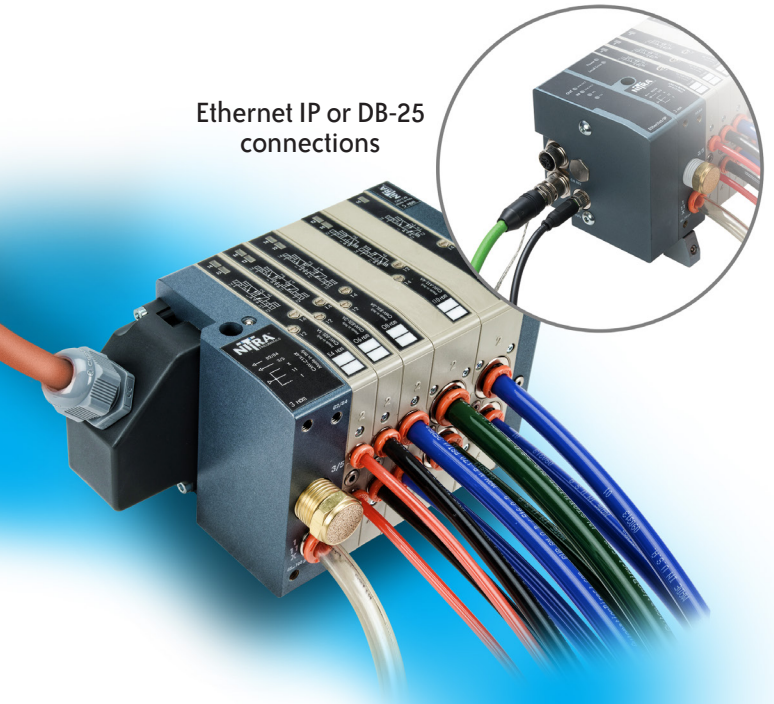
- Inlets range from 1/8" NPT to 1" NPT
- 2 to 20 outlets from #10-32 to 1/2" NPT
- 2-year warranty
- Made in USA

Pneumatic Air Blow Guns



- Maximum input pressure 120 psi
- Connection: 1/4 female NPT thread size on inlet

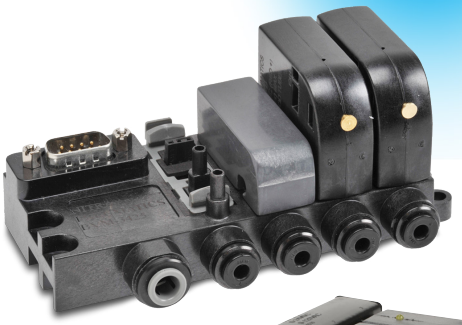
Pneumatic Directional Control Valves



Compact Modular Valves (CMV Series)

NITRA compact modular valves offer unbeatable performance with the flexibility and modularity of multiple valves combined with sturdy mechanics and a high degree of protection. The system offers flexibility from one to 16 valves, and input and output terminals for tubing of different sizes.

- Up to 16 valves (16 solenoids max) per manifold
- Mix valve sizes as needed
- 3-way/2-position, 5-way/2-position and 5-way/3-position valves available
- Selection of end and intermediate plates to cover a wide range of special applications
- Input terminals (left end plates) available for Ethernet IP connections as well as multi-conductor cable (DB-25) connections
- Valves can be individually replaced
- IP65 (when NITRA DB25 cable used)
- 2 year warranty





2-Position Modular / Manifold (BVS & BVM Series)

BVS series modular solenoid valves are body-ported valves available in 3-port (3-way) poppet, and 4 port (4-way) spool designs. BVM series modular solenoid valve manifolds simplify the mounting and wiring of BVS series valves.

- 12 VDC, 24VDC, 24VAC, and 120VAC solenoid coils available
- LED status indicators
- Pushbutton manual operation
- Flying leads or 8mm DIN connection
- 2-, 3-, 4- or 8-station manifolds available
- Control distribution built-in to manifold(BVM-3) or available separately (BVM-4)



Pneumatic Solenoid Valve Accessories

Pneumatic valve manifolds, mounting & stacking kits, exhaust silencers and solenoid cables & connectors to fit NITRA and other air control valves.

- Manifolds & blanking plates for AVS and BV5 series air control valves
- Control distribution blocks for BVS series valves
- Bronze and plastic exhaust silencers for NPT or BSPT valve ports
- Stacking screw kit for AVP series air control valves
- DIN style cables and connectors for solenoids and transmitters



3-Port, 2-Position (AVP Series)

AVP series solenoid valves are 3-way valves (stackable poppet style).

- 1/8" NPT ports
- 2-position, normally closed, spring return
- 24 VDC solenoid coil or 120 VAC solenoid coil

3-Port, 2-Position (AVS-3 Series)

AVS-3 series solenoid valves are body ported 3-port (3-way) spool valves.

- 1/8", 1/4" or 3/8" NPT ports
- 2-position single solenoid, normally closed spring return
- 2-position double solenoid, energize open/energize closed

5-Port, 2-Position (AVS-5 Series)

AVS-5 series solenoid valves are body ported 5-port (4-way) spool valves.

- 1/8", 1/4" or 3/8" NPT ports
- 2-position single solenoid, spring return
- 2-position double solenoid

5-Port, 3-Position (AVS-5 Series)

AVS-5 series solenoid valves are body ported 5-port (4-way) spool valves.

- 1/8", 1/4" or 3/8" NPT ports
- 3-position double solenoid, center closed or center exhaust

Air Pilot Valves (AVS-5 Series)

AVS-5 series directional control air valves are body ported 5-port (4-way) spool valves.

- 1/8", 1/4", 3/8" or 1/2" NPT ports
- 2-position, single pilot normally closed, spring return; 2-position, double pilot; 3-position, double pilot center closed
- Single valve or multiple manifold mounted valve applications

Manual Air Valves (CVR, AVS, CVS Series)

Pneumatic directional control manual valves include toggle style and rotary style hand lever valves, push-pull valves, and foot pedal valves. Foot pedal valves are 5-port (4-way) spool valves that are ideal for non-electrical operator control applications. Spool valves (body ported or optional manifold mount) are available in port sizes of 1/8" or 1/4" NPT. Rotary style valves are available in port sizes of 1/4" or 1/2 NPT.

2-port, Media Separated Process (Pipeline) Valves (DVM Series)

Media separated, dry operator, solenoid valves for use where the metal working components of the valves do not come into contact with the working fluid.

- Nylon body; Viton seals; brass operator
- 2-way diaphragm style valve
- 1/8" or 1/4" FNPT ports
- 2-position, N.C., spring return
- 24VDC, 24VAC or 120VAC
- DIN style wiring connector

and 3-port, Process (Pipeline) Valves (DVP/DVD Series)

Glass filled nylon or brass bodies, Viton seals, brass or stainless operators

- 2 and 3-way poppet style valves
- 2-way diaphragm style valves
- 1/8" to 1" FNPT ports
- 2-position, N.C., spring return
- 24VDC, 24VAC or 120VAC
- DIN style wiring connector

NITRA PNEUMATICS Pneumatic Cylinders Overview

"A" Series non-repairable round body air cylinders

The A-series non-repairable air cylinders are the most common style used in industrial applications. There's no maintenance required with these cylinders, just millions of trouble-free cycles.

- Interchangeable with other common brands of round body cylinders
- Available bore sizes: 7/16" to 2"
- Excellent selection of stroke lengths
- Single-acting (spring return) and double-acting models
- Nose, pivot and double-end mounting options
- Type 304 stainless steel body with high-strength aluminum alloy end caps
- Factory lubricated for long, maintenance-free operation
- 250 psi operating pressure
- Models available with magnetic piston for position indication
- Made in North America



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Pneumatic Cylinders	AutomationDirect NITRA	vs.	MSC Norgren	McMaster-Carr
Non-repairable Air Cylinder 2 inch bore, 4 inch stroke, double acting, pivot/double end mount	$64.00 A32040DD		$124.44 36697563	$89.76 6498K478
Non-repairable Air Cylinder 3/4 inch bore, 1 inch stroke, single acting spring return, nose mount	$13.00 A12010SN		$24.01 36696458	$17.78 6498K141
Non-repairable Air Cylinder 1-1/16 inch bore, 6 inch stroke, double acting, pivot/double end mount	$29.50 A17060DP		$60.37 36696847	$43.75 6498K658

All prices are U.S. published prices. Many other part numbers are available from all vendors. AutomationDirect prices as of 4/27/2016. Norgren prices are from www.mscdirect.com 4/18/2016. McMaster-Carr prices are from www.mcmaster.com 4/18/2016. Prices subject to change without notice.

CPS Series pneumatic position switches

These position switches offer a robust, yet cost-effective interface between pneumatic actuators and electrical control systems. Using state-of-the-art AMR and GMR magnetic sensing technology, these switches are designed for use with pneumatic cylinders that have a magnet incorporated in the cylinder piston.

- Electronic switch output, PNP or NPN, normally open and normally closed
- Solid state reliability, no moving parts for longer life
- AMR sensing technology with small hysteresis for precise sensing
- GMR sensing technology for basic industrial applications
- Compact and easy to mount on round body and T-slot cylinders
- LED switch status indication
- Available with M8 wiring connector or 2-meter integral cable with wire leads
- Electronic switch performance at mechanical reed switch prices
- 8 sensor form factors



"C" Series compact air cylinders

This series of compact stainless steel round body cylinders are great for applications where space is a concern.

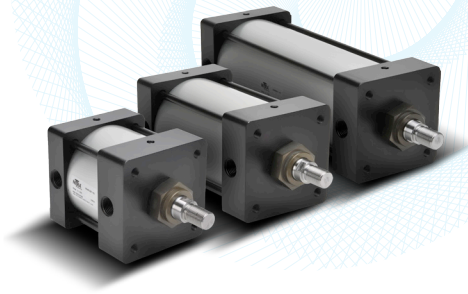
- Interchangeable with other common brands of compact round body cylinders
- Bore sizes from 9/16" to 3"
- Excellent selection of stroke lengths
- Double-acting
- Type 304 stainless steel cylinder body with high-strength aluminum alloy end caps
- 2-year warranty
- Made in the USA



"D" Series NFPA heavy duty air cylinders for abusive conditions

This series of heavy duty cylinders meet applications where abusive conditions exist. Cushioned cylinders are also available to provide end-of-stroke deceleration at both ends.

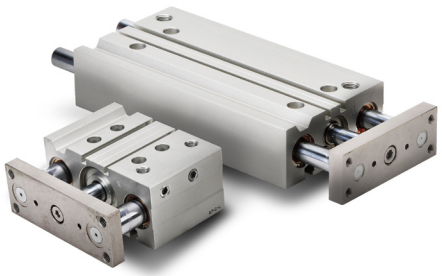
- Interchangeable with other common brands of heavy duty cylinders
- Bore sizes from 1½" to 4"
- Stroke lengths from 1" to 24"
- Cushioned cylinder models available
- Double-acting
- Teflon impregnated, hard coated aluminum bearings
- Solid high aluminum piston rods, fitted with PTFE wear band
- High tensile steel torqued tie rods to allow flexure
- 2-year warranty
- Made in the USA



"E" Series dual-rod guided air cylinders

Guided rod cylinders are ideal for applications that require precise alignment or have large side loads. The E-series actuators feature dual guide rods, bronze bushings, extruded aluminum housing and switch mounting tracks.

- Double-acting
- Interchangeable with other common brands of guided rod cylinders
- Bore sizes from 12mm to 63mm
- Stroke lengths from 10mm to 250mm
- Maximum operating pressure of 142 psi
- Non-rotate tolerance of +/-0.10° or less



"F" Series round body all stainless steel air cylinders

All stainless steel cylinders are suitable for washdown and other harsh conditions. The F-series cylinders are constructed with corrosion-resistant 300 series stainless steel and Teflon-based rod and pivot bushings.

- All stainless steel body, end caps, and rod
- Interchangeable with other common brands of round body cylinders
- Bore sizes from 3/4" to 2"
- Stroke lengths from 1/2" to 18"
- Double-acting
- Three mounting configurations



"G" Series ISO 15552 air cylinders

ISO 15552 air cylinders are suitable for equipment requiring full metric dimensions. The G-series cylinders are constructed with drawn anodized aluminum body, die cast heads with chromed piston rod, and extruded in longitudinal slots for inserting retractable sensors such as type CPS9F or CPSQ.

- All aluminum body and end caps
- Piston is self-lubricating technopolymer and includes a plastoferrite magnet
- Interchangeable with other common brands of ISO 15552 cylinders
- Bore sizes from 32mm to 100mm
- Stroke lengths from 25mm to 600mm
- Double-acting
- Adjustable cushions on both ends



"H" Series compact extruded body air cylinders

This series of compact aluminum extruded body cylinders have metric dimensions and are great for applications where space is a concern.

- Interchangeable with other common brands
- Bore sizes from 12mm to 100mm
- Stroke lengths from 5mm to 100mm
- Double-acting
- Magnetic pistons and built-in switch grooves for easy position sensing
- Anodized aluminum alloy body and end caps
- 2-year warranty



Pneumatic tubing made in USA for less!

NITRA® PNEUMATICS

Polyurethane (PUR) Tubing



NITRA© polyurethane tubing is made from the highest quality, 100% virgin raw materials available and has a hardness specification of Shore A 98. It is ether based to provide excellent hydrolysis, oil and cold resistance. NITRA polyurethane tubing is strong, flexible, and offers superior kink resistance compared to other tubing. With its extremely tight outside diameter tolerance, NITRA Polyurethane Tubing is ideal for use with NITRA push-to-connect fittings.

Features

- Inch and metric sizes available
- Seven colors – black, blue , clear, red, yellow, clear blue and dark green (UV stabilized)
- 100 foot and 500 foot package sizes
- Shore A 98 hardness
- Strong, flexible and kink resistant

Polyurethane Pneumatic Tubing		
Colors Available	*PKG/Reel Length (feet)*	*Price*
Polyurethane 1/8 in. Tubing		
Black, Blue, Clear, Red, Yellow, Clear Blue, Dark Green (UV)	100 ft. Package	$13.50 (PU18xxx100)*
	500 ft. Reel	$67.00 (PU18xxx500)*
Polyurethane 5/32 in. (4mm) Tubing		
Black, Blue, Clear, Red, Yellow, Clear Blue, Dark Green (UV)	100 ft. Package	$10.50 (PU532xxx100)*
	500 ft. Reel	$49.00 (PU532xxx500)*
Polyurethane 1/4 in. Tubing		
Black, Blue, Clear, Red, Yellow, Clear Blue, Dark Green (UV)	100 ft. Package	$19.00 (PU14xxx100)*
	500 ft. Reel	$91.00 (PU14xxx500)*
Polyurethane 3/8 in. Tubing		
Black, Blue, Clear, Red, Yellow, Clear Blue, Dark Green (UV)	100 ft. Package	$38.50 (PU38xxx100)*
	500 ft. Reel	$183.00 (PU38xxx500)*
Polyurethane 1/2 in. Tubing		
Black, Blue, Clear, Red, Yellow, Clear Blue, Dark Green (UV)	100 ft. Package	$68.00 (PU12xxx100)*
	500 ft. Reel	$322.00 (PU12xxx500)*
Polyurethane 6 mm Tubing		
Black, Blue, Clear, Red, Yellow, Clear Blue, Dark Green (UV)	100 ft. Package	$18.50 (PU6Mxxx100)*
	500 ft. Reel	$90.00 (PU6Mxxx500)*
Polyurethane 8 mm Tubing		
Black, Blue, Clear, Red, Yellow, Clear Blue, Dark Green (UV)	100 ft. Package	$28.50 (PU8Mxxx100)*
	500 ft. Reel	$137.00 (PU8Mxxx500)*
Polyurethane 10 mm Tubing		
Black, Blue, Clear, Red, Yellow, Clear Blue, Dark Green (UV)	100 ft. Package	$40.00 (PU10Mxxx100)*
	500 ft. Reel	$188.00 (PU10Mxxx500)*
Polyurethane 12 mm Tubing		
Black, Blue, Clear, Red, Yellow, Clear Blue, Dark Green (UV)	100 ft. Package	$68.00 (PU12Mxxx100)*
	500 ft. Reel	$322.00 (PU12Mxxx500)*

* UV stabilized tubing priced slightly higher

Nylon 12 Tubing



NITRA nylon 12 tubing is made from the highest quality, 100% virgin raw materials available and has a hardness specification of Shore D 70. Nylon tubing is recognized as an industry standard for applications which require higher working pressures and better heat/chemical resistance than polyurethane. NITRA Nylon 12 Tubing is strong, lightweight, and has a very low moisture absorption rate so it will remain flexible with a longer service life than other nylons. NITRA Nylon 12 is ideal for use with NITRA push-to-connect fittings.

Features

- Inch and metric sizes available
- Five colors – black, blue , natural, red and yellow
- 100 foot and 500 foot package sizes
- High working pressure and temperature/chemical resistance

Nylon Pneumatic Tubing		
Colors Available	*PKG/Reel Length (feet)*	*Price*
Nylon 5/32 in. (4mm) Tubing		
Black, Blue, Natural, Red, Yellow	100 ft. Package	$10.50 (N532xxx100)
	500 ft. Reel	$48.50 (N532xxx500)
Nylon 1/4 in. Tubing		
Black, Blue, Natural, Red, Yellow	100 ft. Package	$17.50 (N14xxx100)
	500 ft. Reel	$82.00 (N14xxx500)
Nylon 3/8 in. Tubing		
Black, Blue, Natural, Red, Yellow	100 ft. Package	$37.50 (N38xxx100)
	500 ft. Reel	$175.00 (N38xxx500)
Nylon 1/2 in. Tubing		
Black, Blue, Natural, Red, Yellow	100 ft. Package	$62.00 (N12xxx100)
	500 ft. Reel	$295.00 (N12xxx500)
Nylon 6 mm Tubing		
Black, Blue, Natural, Red, Yellow	100 ft. Package	$18.00 (N6Mxxx100)
	500 ft. Reel	$85.00 (N6Mxxx500)
Nylon 8 mm Tubing		
Black, Blue, Natural, Red, Yellow	100 ft. Package	$28.50 (N8Mxxx100)
	500 ft. Reel	$135.00 (N8Mxxx500)
Nylon 10 mm Tubing		
Black, Blue, Natural, Red, Yellow	100 ft. Package	$40.00 (N10Mxxx100)
	500 ft. Reel	$188.00 (N10Mxxx500)
Nylon 12 mm Tubing		
Black, Blue, Natural, Red, Yellow	100 ft. Package	$64.00 (N12Mxxx100)
	500 ft. Reel	$301.00 (N12Mxxx100)

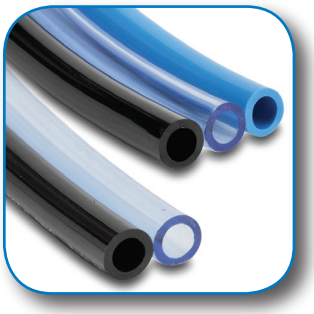


Nylon Coiled Hose

NITRA© nylon coiled hose is an excellent choice for industrial environments requiring higher working pressure and higher temperature/chemical resistance. Manufactured from Nylon 12, these hoses include spring guards to resist kinking and have male nickle-plated brass NPT swivel fittings on each end.

Features

- Heavy duty nylon has low moisture absorbtion rate
- Coiled hose allows operator freedom of movement and uncluttered work area
- Lightweight and ecomical
- Replacement swivel fittings available
- Hose Kits



Bonded Straight Polyurethane Tubing

NITRA bonded polyurethane (PUR) tubing is made by continuously bonding standard NITRA polyurethane tubing. The result is a strong, organized, color-coded package that makes installation neater and easier. With its extremely tight outside diameter tolerance, NITRA polyurethane tubing is ideal for use with NITRA push-to-connect fittings.

Features

- Inch and metric sizes available
- Contrasting colors
- Secondary bonding process maintains tubing geometry
- 50-foot package size
- Shore A 98 hardness
- Strong, flexible and kink resistant

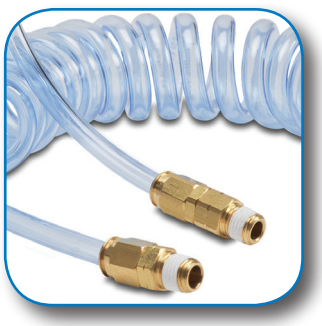


Polyurethane Coiled Tubing - Single and Bonded Multi-Tube

NITRA polyurethane (PUR) coiled tubing is made from our high quality standard polyurethane tubing. NITRA polyurethane tubing is strong, flexible, and offers superior kink resistance compared to other tubing. With its extremely tight outside diameter tolerance, NITRA polyurethane tubing is ideal for use with NITRA push-to-connect fittings. Coiled tubing is available in single, double and triple bonded configurations.

Features

- Inch and metric sizes available
- Contrasting colors on double and triple coils
- Three working lengths for each size
- Shore A 98 hardness
- Strong, flexible and kink resistant

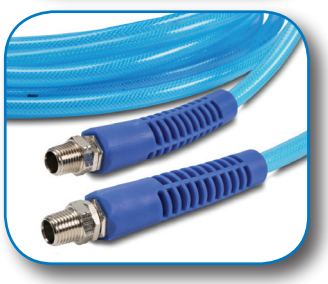


Polyurethane Coiled Hose

NITRA polyurethane (PUR) hose is made from the same high quality materials as our tubing. Hoses have one rigid and one swivel fitting and are specified by inside diameter.

Features

- 1/4" and 3/8" inside diameters
- 8, 12 and 16-foot working lengths
- Clear blue color
- Shore A 98 hardness
- Strong, flexible and kink resistant
- NPT threaded or quick-disconnect couplings



Reinforced Polyurethane Hose

NITRA reinforced polyurethane (PUR) hose features a sturdy nylon braid between the polyurethane inner and outer layers. Contamination of air systems caused by rubber hose breakdown is significantly reduced by using NITRA PUR hose. Hoses have one rigid and one swivel fitting and are specified by inside diameter.

Features

- 1/4" and 3/8" inside diameters
- 25 and 50-foot package lengths available
- Clear blue color
- Lighter weight compared to rubber hose
- Strong, flexible and kink resistant
- NPT threaded or quick-disconnect couplings



Reinforced Polyurethane Coiled Hose

NITRA reinforced coiled hose has a sturdy nylon braid between the polyurethane inner and outer layers. Contamination of air systems caused by rubber hose breakown is significantly reduced by using NITRA PUR hose. Hoses have one rigid and one swivel fitting and are specified by inside diameter.

Features

- 1/4" and 3/8" inside diameters and two fitting sizes available
- 8, 12, and 16-foot working lengths
- Clear blue color
- Shore A 85 hardness
- Strong, flexible and kink resistant
- NPT threaded or quick-disconnect couplings

NITRA® Stainless Steel Push-to-Connect Fittings





These air fittings are ideal for high temperature and washdown applications and can be used with air, water, oil, etc. NITRA stainless steel pneumatic push-to-connect fittings are made with 316 stainless steel bodies and 303 stainless steel gripping collets with internal Viton o-ring. Threaded components are 316 stainless steel.

- NITRA flexible pneumatic tubing is easily connected by simply inserting the tubing end into the fitting. To release the tubing, press the circular releasing sleeve and the tubing can be easily pulled out.
- The bodies of elbow and tee fittings with threaded connections can be rotated after installation to allow for variations in piping direction.
- A variety of pneumatic fittings with stainless steel construction are available including straight fittings, elbows, and tees.

NITRA® Pneumatic Air Fittings





Quick-Disconnect Air Couplings

NITRA pneumatic quick-disconnect hose couplings allow easy changing of tools or hose connections. Couplers and plugs are sold separately. Industrial Interchange, ARO210 and Truflate plugs are available in steel and chrome-plated steel. Couplers are available in Industrial Interchange manual or automatic and universal automatic. Safety couplers bleed off air pressure downstream before disconnecting.

- Plugs and couplers for 1/4 and 3/8 inch hose sizes
- Male and female NPT threaded
- Thread sealant supplied on all male fittings



These plus many more types are available

Brass Threaded Fittings

NITRA brass fittings are machined from quality brass bar stock or forgings.

They work well with air, water, oil, oxygen, nitrogen and argon. Available in most popular styles and sizes, the fittings all have NPT threaded connections.

- 10 different styles
- Machined from yellow brass bar stock or forging
- Work with water, oil, air and other gases
- Maximum pressure 150 psi


Male Connector


Female Connector


Male to Female Connector


Hex Bushing


Female Elbow


Street Elbow


Male Tee


Female Tee

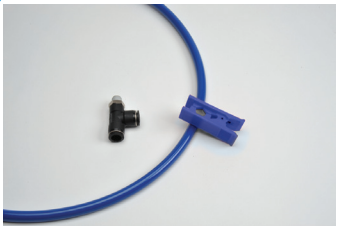

Recessed Hex Plug


Hex Head Plug

NITRA® PNEUMATICS

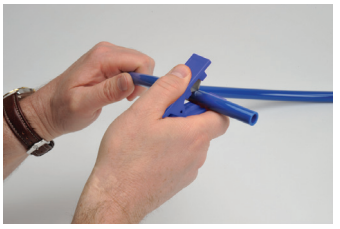
Pneumatic Fitting Instructions and Caution Information

Assembly Instructions

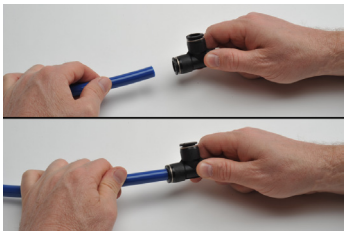


Prepare the **NITRA** tubing for cutting and make sure to have the proper tubing cutters like the **NITRA** TC-12 or TC-20.

(If cutting bonded tubing, carefully split the tubes with a knife and then pull apart as needed.)

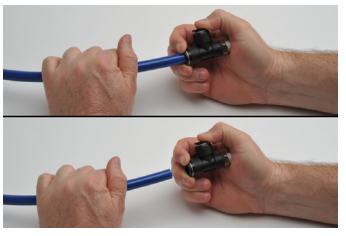


Cut the **NITRA** tubing at a right angle with the axis using a standard tube cutter. After cutting the tubing, make sure to check the cut end for an even cut with no debris.



Insertion of the **NITRA** tubing into fittings

- Make sure the tube is inserted fully into the fitting.
- Pull the tube gently to make sure it does not release.
- If the tube end is damaged or deformed, leakage or unexptected tube release may occur. Make sure to check tubing end thoroughly.



Removing the **NITRA** tubing from fittings

- Make sure the pressure in the tube is zero before releasing the tube from the fittings.
- To release the tubing, press the release ring at the end of the fitting and pull the tube with one hand.
- Inspect the released tube end and make a clean cut if it is damaged or deformed.

Common Precautions for Tubing and Fitting Products

Warnings:

- Do not use fittings with media other than air.
- Avoid installing with tubing under tension or with excessive bends.
- Do not use the product where weld spatters occur as fire may occur.
- Product damage or air leakage may occur at places where there is excessive rotation or vibration of the fittings.
- Use caution in water as the product may be damaged by surge pressure.
- Do not use the product where it is directly exposed to fluids such as cutting oil, lubricating oil, and coolant oil.

Cautions:

- Assemble the tubing only after cleaning away impurities such as dust and excess debris.
- Fitting products are recommended for air systems only. Avoid using for other purposes.
- When using tubing other than NITRA brand with NITRA fittings, be sure the tubing OD conforms to the tolerances in Table 1 below.

Table 1 - Tolerance of the Outer Diameter of the Tube					
Tube Specifications	ø5/32 [ø4]	ø1/4 [ø6]	ø5/16 [ø8]	ø3/8 [ø10]	ø1/2 [ø12]
Permissible tolerance	+ 0.005 [+/- 0.13]				

Pneumatic Tubing Cutter				
Part Number	***Description***	***Pcs/Pkg***	***Wt (lb)***	***Price***
TC-12	NITRA pneumatic tubing cutter for use with 1/8 to 1/2 inch and 4 to 12 mm outside diameter flexible plastic tubing.	1	0.1	$4.25
TC-20	NITRA pneumatic heavy duty tubing cutter for use with polyurethane, nylon and other flexible tubing up to 2 inch [50mm] outside diameter.	1	0.2	$7.25



TC-12



TC-20

Total Air Prep (TAP)



TAP-3000



TAP-1000



For a variety of cable options see our website www.AutomationDirect.com

The NITRA Total Air Prep (TAP) unit is the latest technology for compressed air preparation. A single, high flow unit contains an automatic drain air filter with clogged filter indicator, relieving regulator, lockable shut-off valve, pressure gauge and air dump. Electric models also have an adjustable electric soft start / shut-off valve and an adjustable pressure switch with indicator LEDs. Interchangeable inlet and outlet port inserts allow the TAP to easily mount to most pipe sizes.

Features:

- 20 micron air filter with automatic drain (optional 5 micron filter element sold separately)
- 0-120 psi operating range
- Units ship with 1/2" NPT inlet/outlet ports. Optional NPT or BSPP port inserts in sizes 1/4" thru 1" (sold separately). Any combination of port sizes all in one small footprint!
- Units ship with panel mounting hardware. Optional thru-panel mount hardware sold separately.

Nitra Total Air Prep (TAP) Units

Part No.	Price	Description	Weight
TAP-3000	$313.00	NITRA pneumatic total air prep unit, 1/2in female NPT inlet(s), 1/2in female NPT outlet(s), 0-120 psi (0-8 bar) adjustable range, polycarbonate bowl, automatic drain, clog indicator, manual shutoff valve, soft start valve, pressure switch.	3.0
TAP-1000	$171.00	NITRA pneumatic total air prep unit, 1/2in female NPT inlet(s), 1/2in female NPT outlet(s), 0-120 psi (0-8 bar) adjustable range, polycarbonate bowl, automatic drain, clog indicator, manual shutoff valve.	2.5

Nitra Total Air Prep (TAP) Unit Specifications

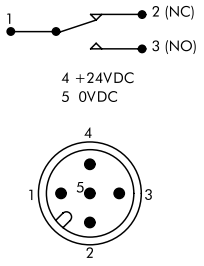
Specification	1/4" Units	3/8" Units	1/2" Units	3/4" Units	1" Units
Flow rate at 91psi (6.3 bar) Δ p 7psi (0.5 bar)	78 scfm, 2200 Nl/min	102 scfm, 2900 Nl/min	127 scfm, 3600 Nl/min		
Flow rate at 91psi (6.3 bar) Δ p 14psi (1 bar)	85 scfm, 2400 Nl/min	116 scfm, 3300 Nl/min	141 scfm, 4000 Nl/min		
Flow rate on discarge at 14psi (6 bar)	56 scfm, 1600 Nl/min				
1/4" Port flow rate of non-regulated filtered air at 91psi (6.3 bar) Δpressure 1 bar	64 scfm, 1800 Nl/min				
Flow rate of each supplementary 1/4" filtered and regulated air port at 91psi (6.3 bar) Δpressure 1 bar*	85 scfm, 2400 Nl/min				
Fluid	Compressed air				
Setting Range	0-120 psi (0-8 bar)				
Degree of Filtration	5µm (yellow) or 20µm (white)				
Maximum Inlet Pressure	145psi (10 bar)				
Operating Temperature Range	-10 to 50°C (-14 to 122°F)				
Protection Class	IP 65 with connector				
Mounting	Front, with M5 x 75 screws or back with M6 x 70 screws (screws are included)				
Mounting Position	Vertical				
Direction of Flow	From left to right				
Approvals	CE				

** Total flow rate from two supplementary outlets and the main one cannot exceed 4000 Nl/min at 6.3 bar with ΔP = 1*

Total Air Prep (TAP)

Nitra Total Air Prep (TAP) Unit Specifications (TAP 3000 only)					
Specification	***1/4" Units***	***3/8" Units***	***1/2" Units***	***3/4" Units***	***1" Units***
Solenoid Valve Voltage	24VDC ± 10%				
Pressure Interval Settable on the Pressure Switch	7 to 145 psi (0.5 to 10 bar)				
Pressure Switch Hysteresis (not adjustable)	6 to 12 psi (0.4 to 0.8 bar)				
Maximum Pressure Switch Current	0.5 A (protected against overload and short-circuit)				
Maximum Pressure Switch Voltage	3 to 30 VAC/VDC				
Pressure Switch Contacts	Normally Open (NO) and Normally Closed (NC)				
Rated Switching Cycles	5×10^6				
Protection Class	IP 65 with connector				
Solenoid Valve Insulation Class	Insulation class = F (155°C or 311°F)				
Switching Time	100% ED				
Electrical Connection	M12 x 1 5-pin to CEI IEC 60947-5-2				

Wiring



Version with solenoid valve and pressure switch

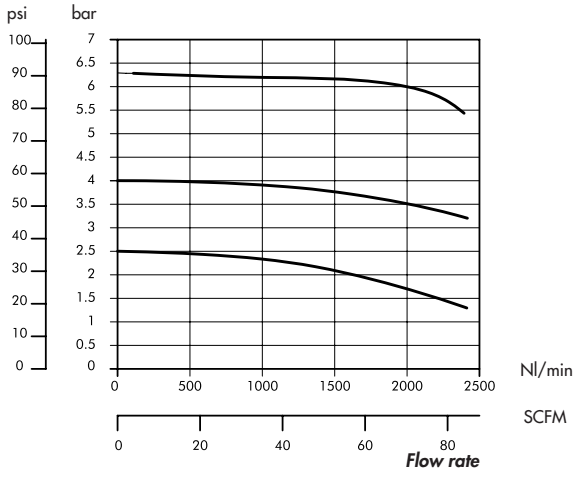
Cable Assembly Wiring Colors:
Pin 1 - Brown
Pin 2 - White
Pin 3 - Blue
Pin 4 - Black
Pin 5 - Yellow/Green

Note: wiring colors are based on AutomationDirect CD12L and CD12M 5-pole cable assemblies.

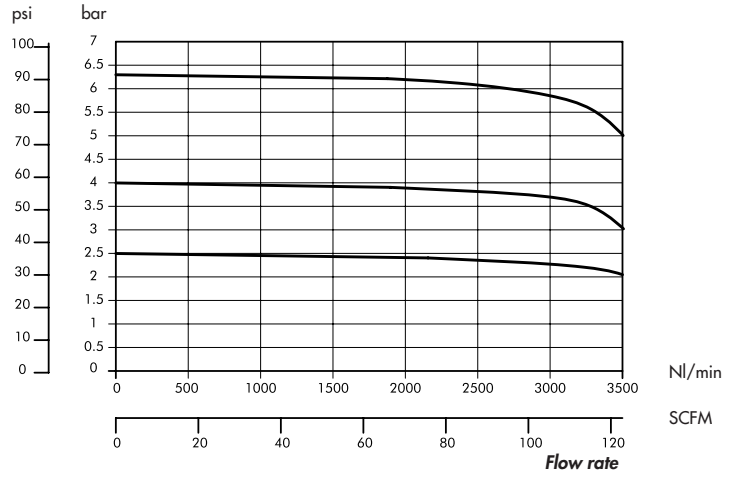
Total Air Prep (TAP)

Flow Charts:

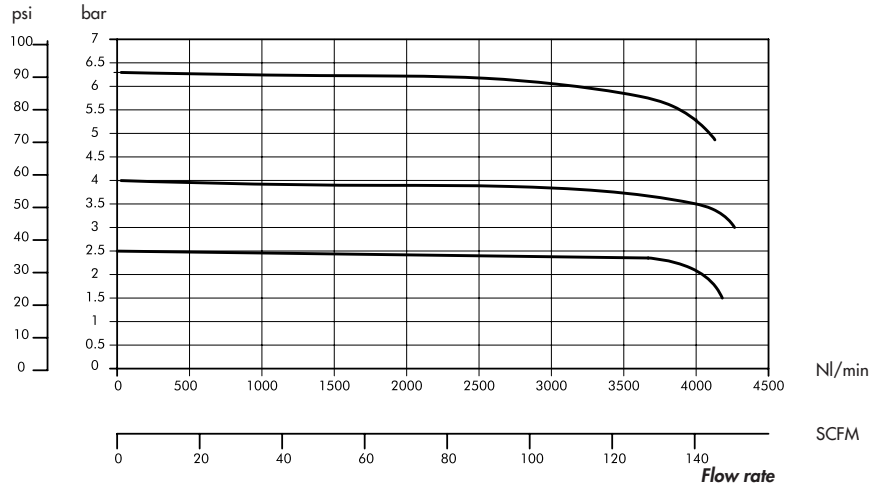
1/4″ **Pm = 116 psi - 8 bar**
Preset pressure



3/8″ **Pm = 116 psi - 8 bar**
Preset pressure



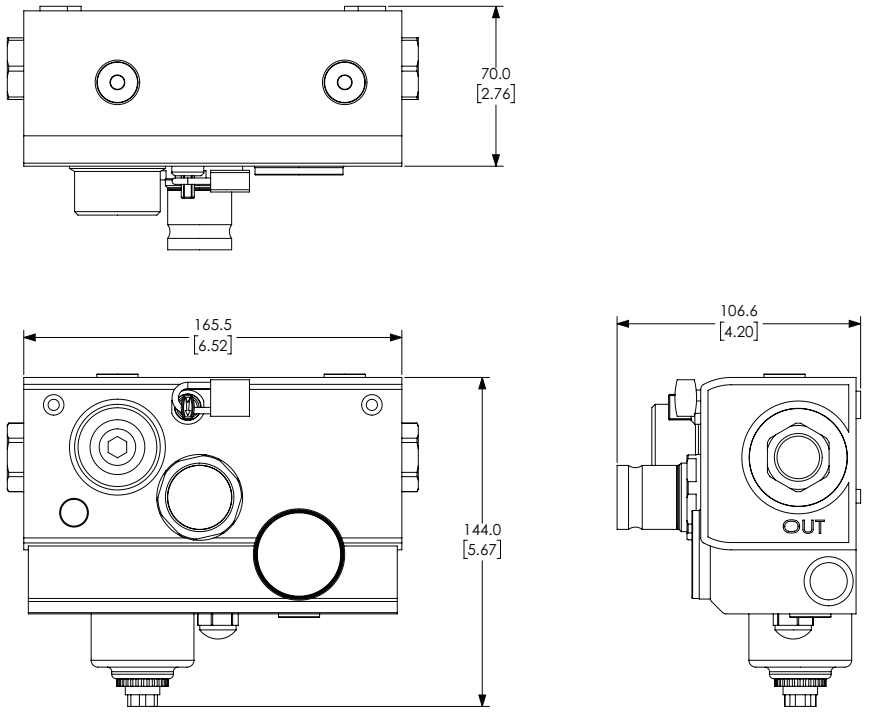
1/2″ - 3/4″ - 1″ **Pm = 116 psi - 8 bar**
Preset pressure



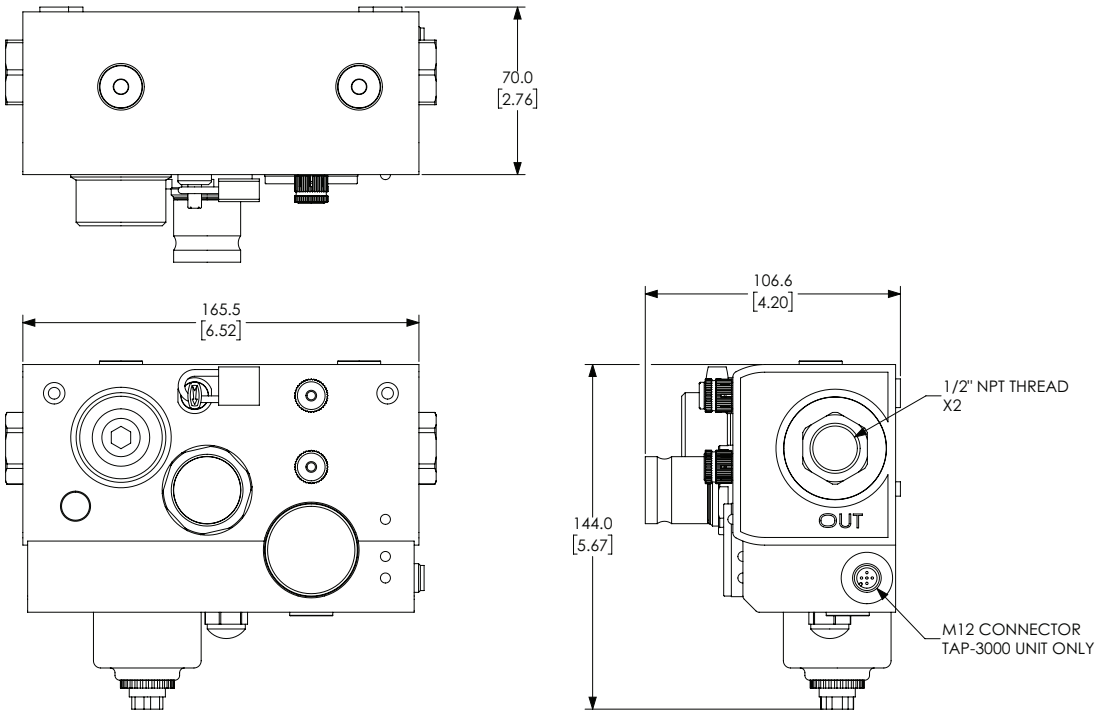
Total Air Prep (TAP)

Dimensions

mm [inches]



TAP-1000 Series

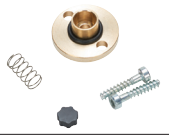
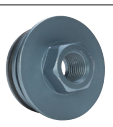
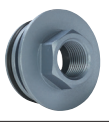
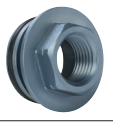
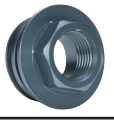


TAP-3000 Series

See our website www.AutomationDirect.com for complete Engineering drawings.

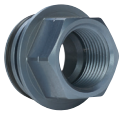
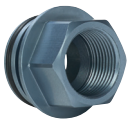
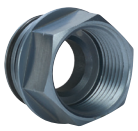
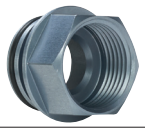
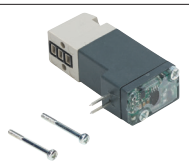
NITRA PNEUMATICS

Total Air Prep (TAP) - Accessories

Total Air Prep (TAP) - Accessories				
Item	***Part No.***	***Price***	***Description***	***Weight (lbs)***
	***TAP-ACC01***	$13.00	NITRA panel mounting brackets, plated steel. For use with TAP unit. Mounting hardware included.	0.2
	TAP-ACC02	$7.25	NITRA filter element, replacement, 20 micron, ultra high molecular weight polyethylene (UHMWPE). For use with TAP unit.	0.2
	***TAP-ACC03***	$16.00	NITRA regulator, replacement, 0-120 psi (0-8 bar) adjustable range, acetal. For use with TAP unit.	0.3
	***TAP-ACC04***	$7.25	NITRA filter element, replacement, 5 micron, ultra high molecular weight polyethylene (UHMWPE). For use with TAP unit.	0.1
	***TAP-ACC05***	$7.50	NITRA regulator diaphragm, replacement, brass. For use with TAP unit.	0.1
	***TAP-ACC06***	$13.50	NITRA plug and filter element, replacement, 20 micron, acetal. For use with TAP unit.	0.1
	***TAP-ACC07***	$15.75	NITRA port insert, 1/4in NPT, anodized aluminum. For use with TAP unit.	0.3
	***TAP-ACC08***	$15.75	NITRA port insert, G1/4 BSPP, anodized aluminum. For use with TAP unit.	0.3
	***TAP-ACC09***	$15.75	NITRA port insert, 3/8in NPT, anodized aluminum. For use with TAP unit.	0.3
	***TAP-ACC10***	$15.75	NITRA port insert, G3/8 BSPP, anodized aluminum. For use with TAP unit.	0.3
	***TAP-ACC11***	$18.50	NITRA port insert, replacement, 1/2in NPT, anodized aluminum. For use with TAP unit.	0.3
	***TAP-ACC12***	$18.50	NITRA port insert, G1/2 BSPP, anodized aluminum. For use with TAP unit.	0.3

Note: For power cables see our Wiring Devices section online at www.AutomationDirect.com

Total Air Prep (TAP) - Accessories

Total Air Prep (TAP) - Accessories				
Item	***Part No.***	***Price***	***Description***	***Weight (lbs)***
	***TAP-ACC13***	$21.50	NITRA port insert, 3/4in NPT, anodized aluminum. For use with TAP unit.	0.3
	***TAP-ACC14***	$21.50	NITRA port insert, G3/4 BSPP, anodized aluminum. For use with TAP unit.	0.3
	***TAP-ACC15***	$25.00	NITRA port insert, 1in NPT, anodized aluminum. For use with TAP unit.	0.3
	***TAP-ACC16***	$25.00	NITRA port insert, G1 BSPP, anodized aluminum. For use with TAP unit.	0.3
	***TAP-ACC17***	$4.50	NITRA regulator removal wrench, steel. For use with TAP unit.	0.3
	***TAP-ACC18***	$37.00	NITRA solenoid valve, replacement. For use with TAP-3000 unit.	0.3
	***TAP-ACC20***	$44.00	NITRA automatic drain valve, replacement, acetal. For use with TAP unit.	0.3
	***TAP-ACC21***	$9.25	NITRA padlock, replacement, brass. For use with TAP unit.	0.3
	***TAP-ACC23***	$1.50	NITRA regulator knob, replacement, 0-120 psi (0-8 bar) adjustable range, acetal. For use with TAP unit.	0.1

Note: For power cables see our Wiring Devices section online at www.AutomationDirect.com

Pneumatic Air Preparation - AF Series Filters



Modular Assembly Example



AF-663



AF-323



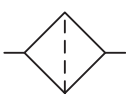
AF-213



AF-213-M



Mounting bracket included.



Air Filter

NITRA® pneumatic particulate and moisture separation air filters are available with 1/8", 1/4", 3/8", 1/2", 3/4" or 1" NPT female port sizes to meet a broad range of pneumatic air supply filtration applications. Available with either a manual, semi-automatic, or automatic drain. All-metal bowls with sight gauge are available on all sizes. Polycarbonate bowls are available on 2xx, 3xx and 4xx sizes, with metal bowl guards included on 3xx and 4xx sizes. Replaceable 40 micron filter elements are standard. An optional 5 micron filter element (purchased separately and customer installable) is available when stricter filtration is required. Provided with a mounting bracket for stand-alone applications, the modular design also enables easy field assembly for combining with NITRA pneumatic regulators and lubricators (using modular assembly brackets purchased separately).

Features

- 1/8", 1/4", 3/8", 1/2", 3/4" and 1" NPT female port sizes
- 40 micron replaceable filter element standard; for stricter filtration an optional 5 micron filter element purchased separately is easily customer installable
- All-metal bowls with sight gauge available on all sizes. Polycarbonate bowls available on 2xx, 3xx and 4xx sizes, with metal bowl guards included on 3xx and 4xx sizes.
- Manual, semi-automatic and automatic drains available
- Mounting bracket provided for stand-alone applications
- Modular design enables easy field assembly for combining with NITRA regulators and lubricators
- 2 year warranty





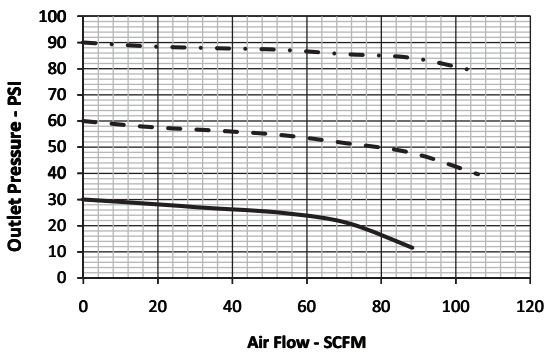
See www.AutomationDirect.com for a wide variety of fitting options

AF Series Filters											
Part No.	Price	Weight (lbs)	Port Size (FNPT)	Drain Bowl	Drain Type	Fluid	Temperature	Filtering Grade	Operating Pressure	Maximum Pressure	Proof Pressure
AF-213-M	$12.00	0.5	1/8"	10cc Polycarbonate	Manual	Air	23~140°F (-4~60°C)	40µ (5µ element can be ordered separately and field installed)	20~130psi (0.14~0.90MPa) (1.4~9.0 bar)	130psi (0.90MPa) (9.0 bar)	215psi (1.5MPa) (15 bar)
AF-213	$12.50	0.5			Semi-automatic						
AF-213-MD	$16.00	0.5		17cc Metal with sight gauge	Manual						
AF-213-D	$16.50	0.5			Semi-automatic						
AF-223-M	$12.00	0.5	1/4"	10cc Polycarbonate	Manual						
AF-223	$12.50	0.5			Semi-automatic						
AF-223-MD	$16.00	0.5		17cc Metal with sight gauge	Manual						
AF-223-D	$16.50	0.5			Semi-automatic						
AF-323-M	$17.50	1.0		40cc Polycarbonate with metal bowl guard	Manual						
AF-323	$18.00	1.1			Semi-automatic						
AF-323-A	$30.50	1.1			Automatic						
AF-323-MD	$26.00	1.0		40cc Metal with sight gauge	Manual						
AF-323-D	$27.00	1.0			Semi-automatic						
AF-323-AD	$39.00	1.0			Automatic						

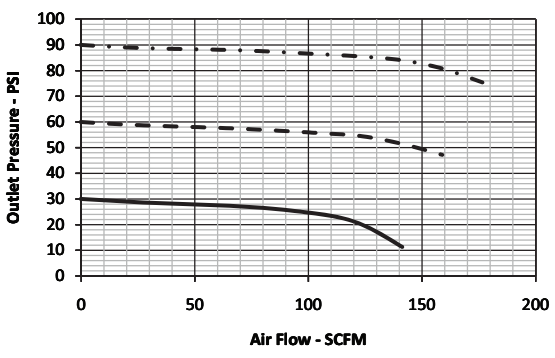
Pneumatic Air Preparation - AF Series Filters

AF Series Filters Cont.											
Part No.	Price	Weight (lbs)	Port Size (FNPT)	Drain Bowl	Drain Type	Fluid	Temperature	Filtering Grade	Operating Pressure	Maximum Pressure	Proof Pressure
AF-333-M	$17.50	1.0	3/8"	40cc Polycarbonate with metal bowl guard	Manual	Air	23~140°F (-4~60°C)	40µ (5µ element can be ordered separately and field installed)	20~130psi (0.14~0.90MPa) (1.4~9.0 bar)	130psi (0.90MPa) (9.0 bar)	215psi (1.5MPa) (15 bar)
AF-333	$18.00	1.0			Semi-automatic						
AF-333-A	$30.50	1.1			Automatic						
AF-333-MD	$26.00	1.0		40cc Metal with sight gauge	Manual						
AF-333-D	$27.00	1.0			Semi-automatic						
AF-333-AD	$39.00	1.0			Automatic						
AF-443-M	$24.00	1.9	1/2"	80cc Polycarbonate with metal bowl guard	Manual						
AF-443	$25.00	1.9			Semi-automatic						
AF-443-A	$38.50	2.0			Automatic						
AF-443-MD	$34.00	1.8		80cc Metal with sight gauge	Manual						
AF-443-D	$35.00	1.8			Semi-automatic						
AF-443-AD	$47.50	1.8			Automatic						
AF-663-M	$45.50	4.2	3/4"	230cc Metal with sight gauge	Manual						
AF-663	$47.00	4.2			Semi-automatic						
AF-663-A	$53.00	4.2			Automatic						
AF-683-M	$45.50	4.1	1"		Manual						
AF-683	$47.00	4.1			Semi-automatic						
AF-683-A	$53.00	4.1			Automatic						

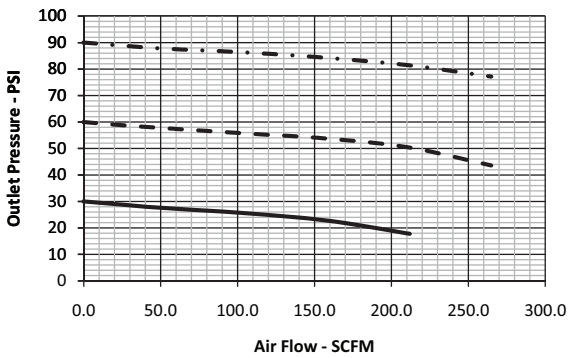
Performance Charts



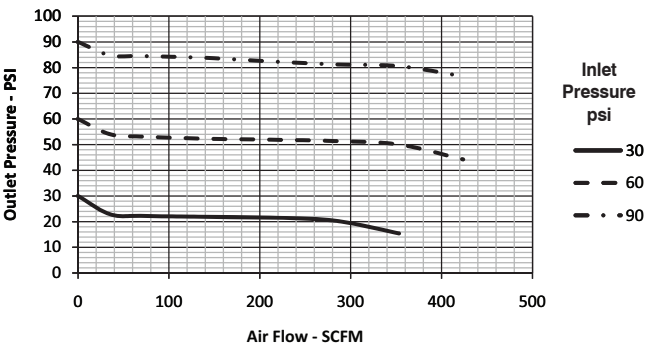
AF-2x



AF-3x



AF-4x



AF-6x

Pneumatic Air Preparation - AF Series Filters

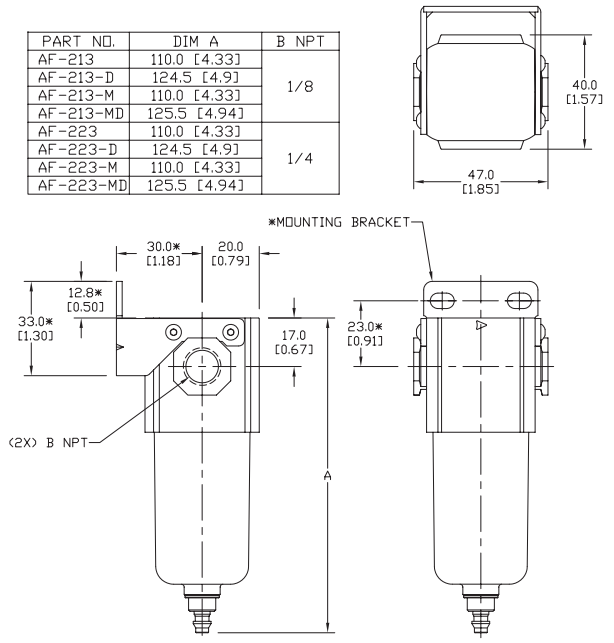
Dimensions

mm [inches]

AF-2x

*MOUNTING BRACKET INSTALLATION OPTIONAL

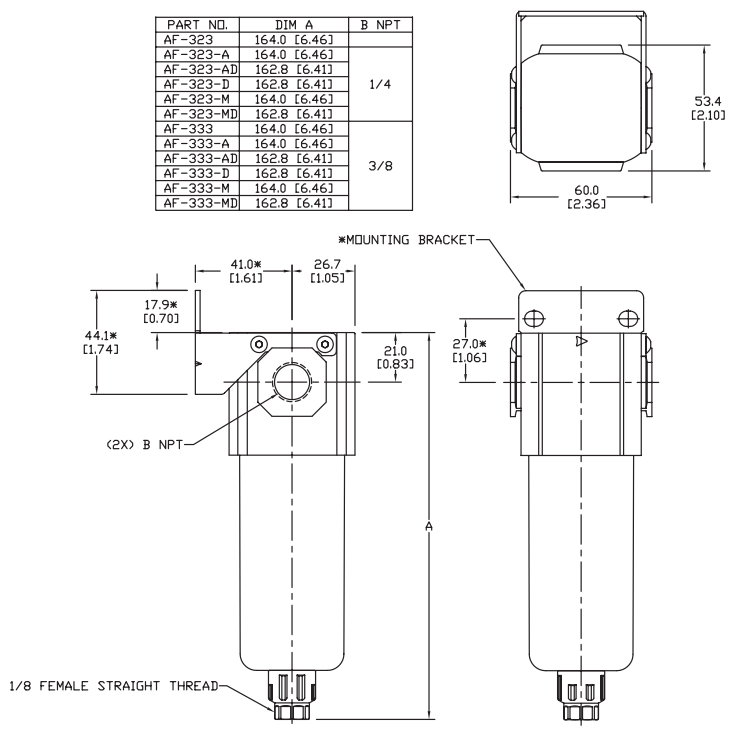
PART NO.	DIM A	B NPT
AF-213	110.0 [4.33]	1/8
AF-213-D	124.5 [4.9]	
AF-213-M	110.0 [4.33]	
AF-213-MD	125.5 [4.94]	
AF-223	110.0 [4.33]	1/4
AF-223-D	124.5 [4.9]	
AF-223-M	110.0 [4.33]	
AF-223-MD	125.5 [4.94]	



AF-3x

*MOUNTING BRACKET INSTALLATION OPTIONAL

PART NO.	DIM A	B NPT
AF-323	164.0 [6.46]	
AF-323-A	164.0 [6.46]	1/4
AF-323-AD	162.8 [6.41]	
AF-323-D	162.8 [6.41]	
AF-323-M	164.0 [6.46]	
AF-323-MD	162.8 [6.41]	
AF-333	164.0 [6.46]	3/8
AF-333-A	164.0 [6.46]	
AF-333-AD	162.8 [6.41]	
AF-333-D	162.8 [6.41]	
AF-333-M	164.0 [6.46]	
AF-333-MD	162.8 [6.41]	



Note: Unit dimensions are the same for listed models; port NPT varies based on model.

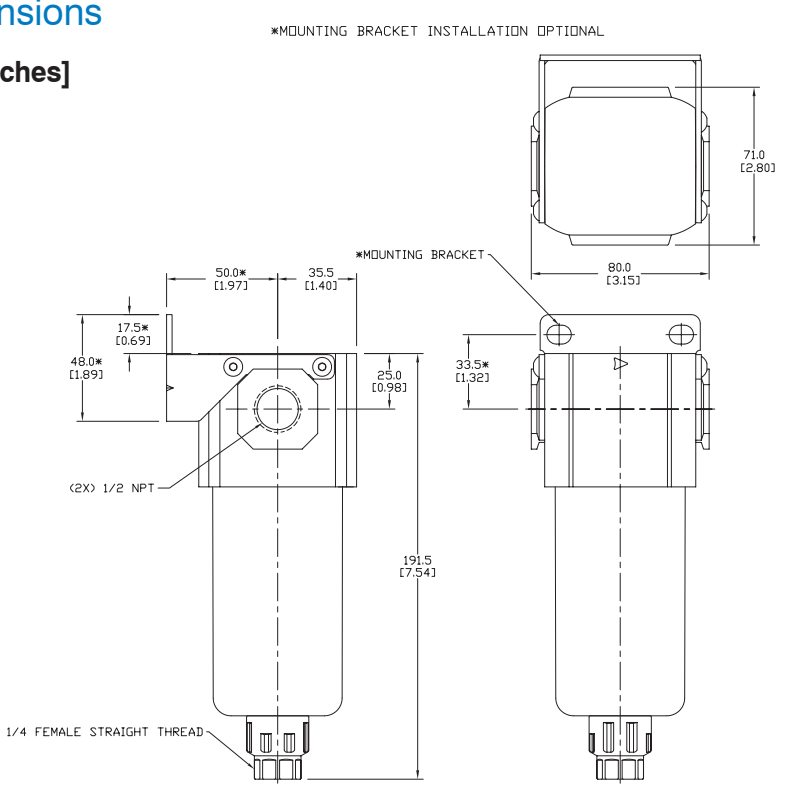
See our Web site www.AutomationDirect.com for complete Engineering drawings.

Pneumatic Air Preparation - AF Series Filters

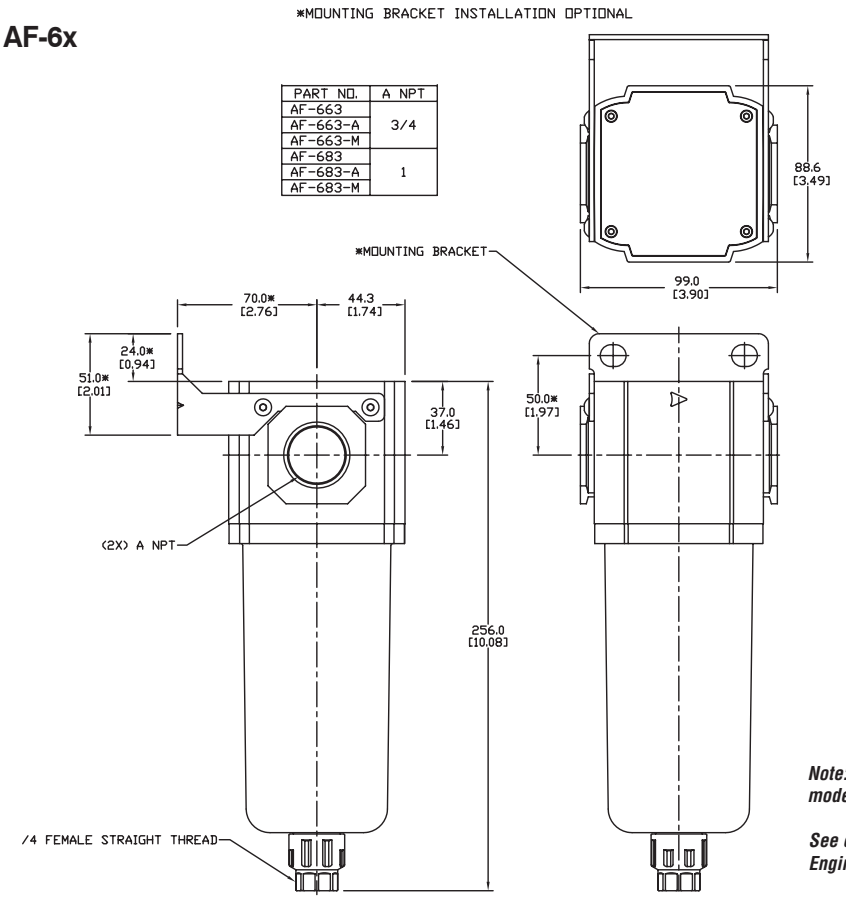
Dimensions

mm [inches]

AF-4x



AF-6x



PART NO.	A NPT
AF-663	3/4
AF-663-A	
AF-663-M	
AF-683	1
AF-683-A	
AF-683-M	

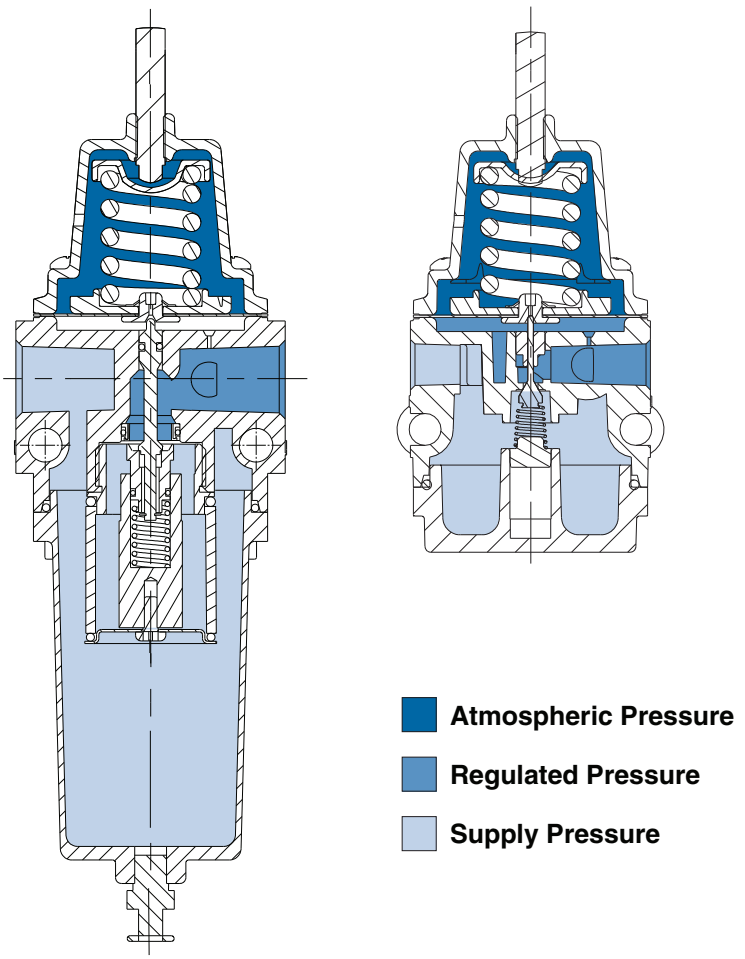
Note: Unit dimensions are the same for listed models; port NPT varies based on model.

See our Web site www.AutomationDirect.com for complete Engineering drawings.

Pneumatic Regulators

Principles of Operation - Standard vs. Precision Regulators

Turning the adjusting screw changes the force exerted by the range spring on the diaphragm assembly. In equilibrium of set pressure, the force exerted by the range spring is balanced by the force from the output pressure acting underneath the diaphragm assembly. An unbalanced state between the output pressure and the set pressure causes a corresponding reaction in the diaphragm and supply valve assemblies. If the output pressure rises above the set pressure, an upward force is exerted on the diaphragm assembly causing the relief seat to lift and open. Excess pressure is vented to atmosphere until equilibrium is reached. If the output pressure drops below the set pressure the unbalanced force of the range spring causes a downward force on the diaphragm assembly. The supply valve then opens until the pressure builds up once more to the equilibrium condition. Under forward flow conditions, the range spring force is balanced by the diaphragm pressure force, with the supply valve open just enough to maintain the required equilibrium pressure. When high flow occurs, a specially designed aspirator helps maintain downstream pressure and compensates for droop.



Pneumatic Air Preparation - AR Series Regulators



Modular Assembly Example



AR-663



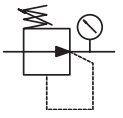
AR-323



AR-213



Mounting bracket included.



Air Regulator

NITRA® pneumatic air pressure regulators are available with 1/8",1/4", 3/8", 1/2", 3/4" or 1" NPT female port sizes and adjustable pressure ranges of 20-130 psi or 4-57 psi to meet a broad range of pneumatic air supply pressure regulation applications. These regulators feature a locking pressure adjustment knob and integral pressure gauge. The regulators will relieve downstream pressure if the setpont is reduced.

Regulators are provided with a mounting bracket for stand-alone applications. The modular design also enables easy field assembly for combining with NITRA pneumatic filters and lubricators (using modular assembly brackets purchased separately). The standard mounting orientation is with the adjustment knob up, however, they can be mounted with the adjustment knob down by moving the pressure gauge to the opposite side to maintain left to right flow direction.

Features

- 1/8", 1/4", 3/8", 1/2", 3/4" and 1" NPT female port sizes
- Adjustable ranges of 20-130 psi or 4-57 psi
- Locking pressure adjustment knob
- Integral pressure gauge
- Mounting bracket provided for stand-alone applications
- Modular design enables easy field assembly for combining with NITRA filters and lubricators
- 2 year warranty



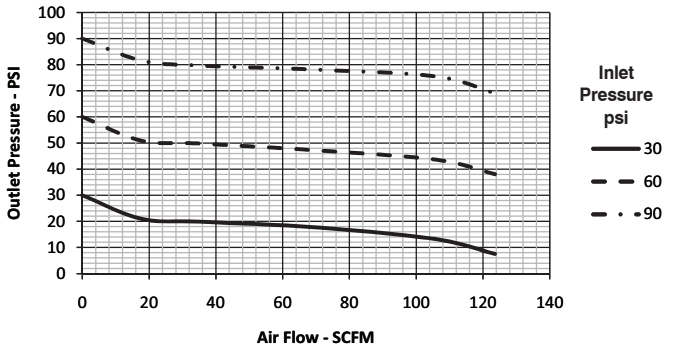


See www.AutomationDirect.com for a wide variety of fitting options

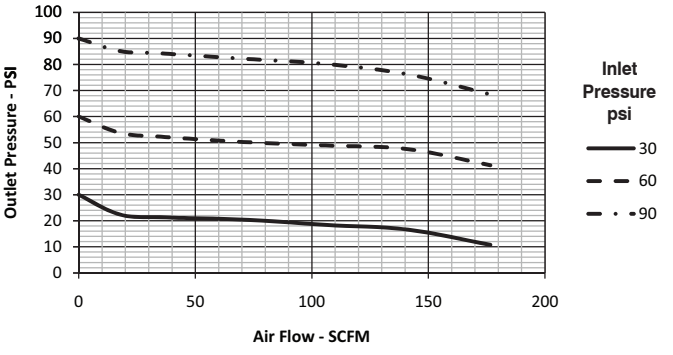
AR Series Regulators								
Part No.	**Price**	**Weight (lbs)**	**Port Size (FNPT)**	**Fluid**	**Temperature**	**Operating Pressure**	**Maximum Pressure**	**Proof Pressure**
AR-213	$18.50	0.5	1/8"	Air	23~140°F (-5~60°C)	20~130psi (0.14~0.90MPa) (1.4~9.0 bar)	145psi (1.00MPa) (10.0 bar)	215psi (1.5MPa) (15 bar)
AR-223	$19.50	0.5	1/4"					
AR-323	$25.50	1.0	1/4"					
AR-333	$25.50	1.0	3/8"					
AR-443	$31.50	1.8	1/2"					
AR-663	$47.50	4.8	3/4"					
AR-683	$55.00	4.7	1"					
AR-212	$18.50	0.5	1/8"			4~57psi (0.03~0.39MPa) (0.3~3.9 bar)	70psi (0.48MPa) (4.8 bar)	
AR-222	$19.50	0.5	1/4"					
AR-322	$26.00	0.9	1/4"					
AR-332	$26.00	0.9	3/8"					

Pneumatic Air Preparation - AR Series Regulators

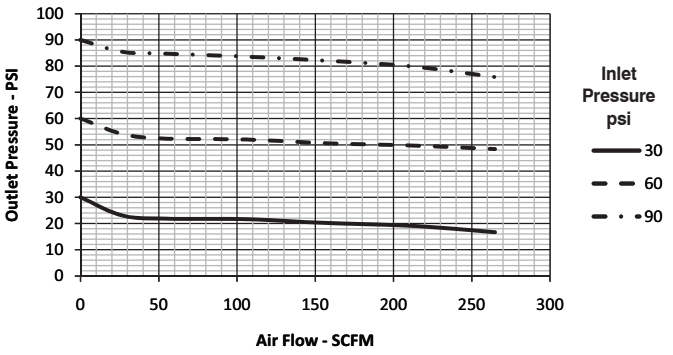
Performance Charts



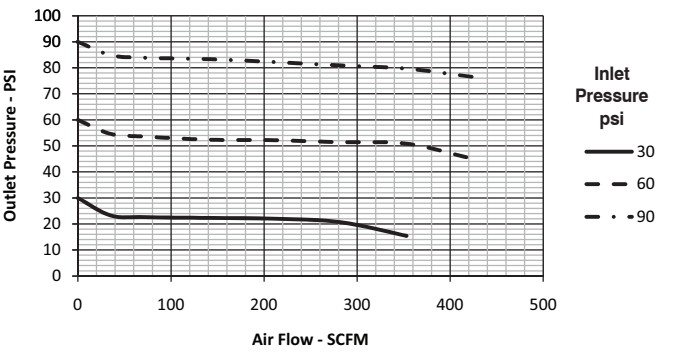
AR-2x



AR-3x



AR-4x

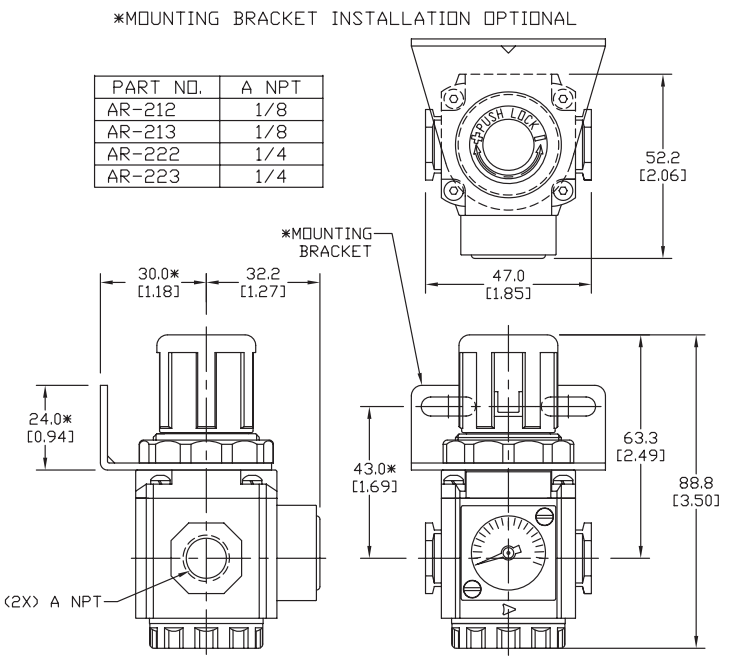


AR-6x

Dimensions

mm [inches]

AR-2x



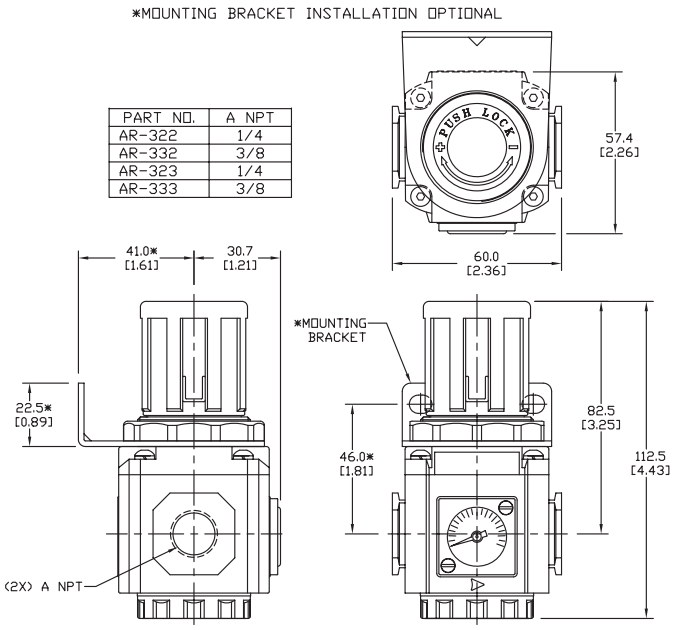
See our Web site www.AutomationDirect.com for complete Engineering drawings.

Pneumatic Air Preparation - AR Series Regulators

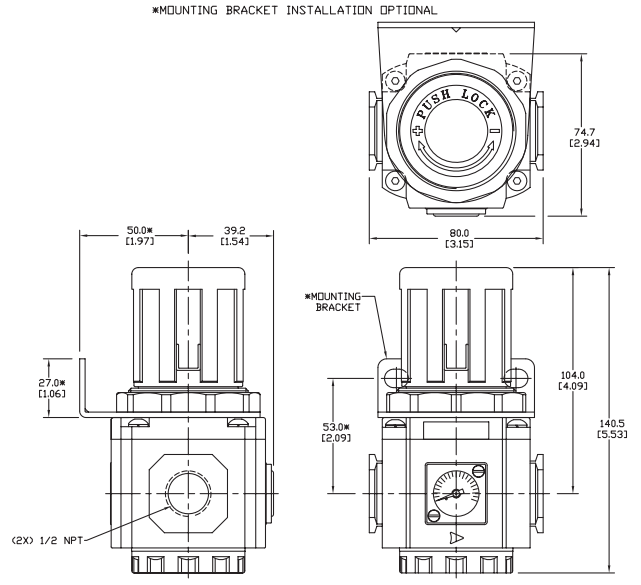
Dimensions

mm [inches]

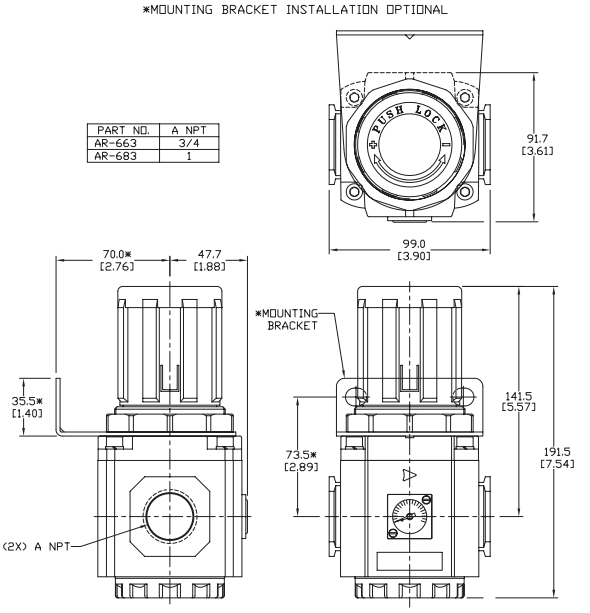
AR-3x



AR-4x



AR-6x



Note: Unit dimensions are the same for listed models; port NPT varies based on model.
See our Web site www.AutomationDirect.com for complete Engineering drawings.

Pneumatic - BR Series Regulators



BR-323



BR-341

NITRA® BR Series Regulators are designed for use in systems that require clean, accurate instrument air. They are constructed of durable materials ideal for industrial environments.

Features

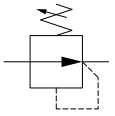
- Diecast aluminum alloy, irridite and baked epoxy finish body
- Nitrile elastomer and nylon fabric diaphragm
- Nitrile elastomer valve seat
- Additional build materials include: brass, zinc plated steel and acetal
- Mounting by pipe, bracket or through body direct
- 1/4" and 1/2" NPT ports available
- 3 pressure ranges available
- Made in the USA



See www.AutomationDirect.com for a wide variety of fitting options



Mounting bracket not included.



Air Regulator

Pneumatic BR Series Regulators

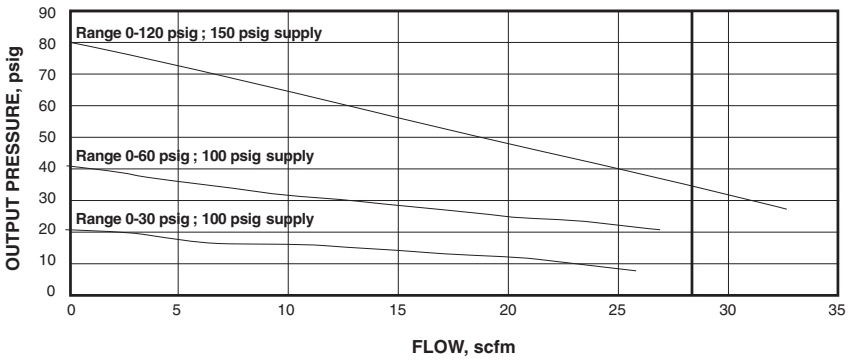
Part No.	Price	Weight (lbs)	Port Size (FNPT)	Fluid	Temperature	Operating Pressure	Maximum Supply Pressure	Supply Pressure Sensitivity	Exhaust Capacity	Sensitivity	Air Consumption	Effect of Supply Pressure Variation
BR-321	$37.00	0.4	1/4"	Air & Inert gases	0~160°F (-18~71°C)	0-30 psi (0-0.21 MPa) (0-2 bar)	250psi (1.72 MPa) (17bar)	0.5 @ 150 psig suppy and 80 psig setpoint	0.1 scfm (2.83 Nl/min) with downstream pressure 5 psig (0.3 bar) above set point	1" of water	Less than 5 scfh (2.5 Nl/min)	Less than 0.25 psig (0.017 bar) for 25 psig (1.7 bar) change
BR-322	$37.00	0.4	1/4"			0-60 psi (0-0.41 MPa) (0-4 bar)						
BR-323	$37.00	0.4	1/4"			0-120 psi (0-0.83 MPa) (0-8 bar)						
BR-341	$72.00	0.4	1/2"			0-30 psi (0-0.21 MPa) (0-2 bar)		2.5 @ 150 psig supply and 80 psig setpoint				Less than 0.5 psig (0.035 bar) for 25 psig (1.7 bar) change
BR-342	$72.00	0.4	1/2"			0-60 psi (0-0.41 MPa) (0-4 bar)						
BR-343	$72.00	0.4	1/2"			0-120 psi (0-0.83 MPa) (0-8 bar)						

Note: A filter (40 micron or less) is recommended ahead of regulator. If lubricator is used, it should be downstream of regulator.

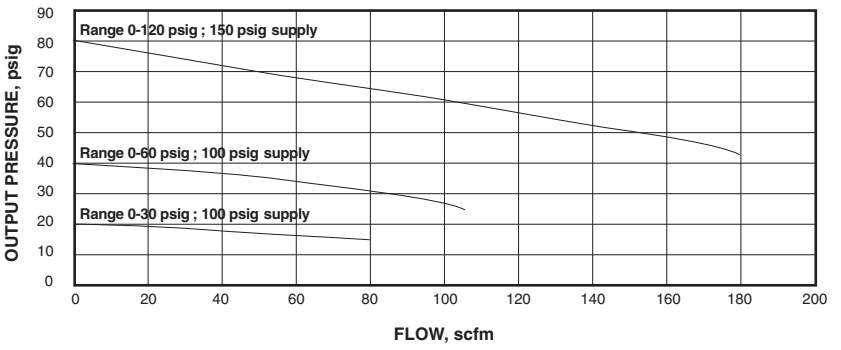
Pneumatic - BR Series Regulators

Performance Charts

BR 1/4" NPT



BR 1/2" NPT



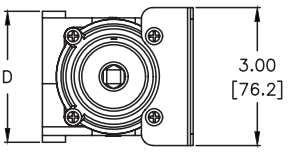
Dimensions

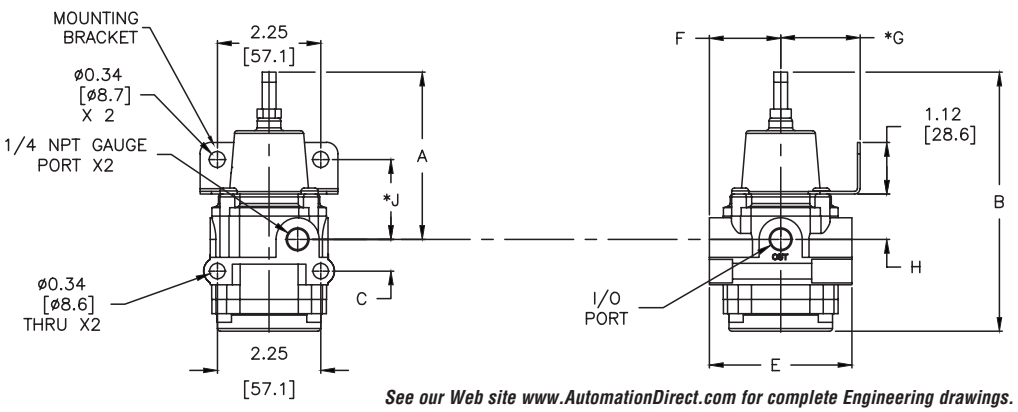
Inches [mm]

BR-X

PART NUMBER	A	B	C	D	E	F	G	H	J	I/O PORT	PSI RANGE
BR-321	3.64 [92.4]	5.64 [143.2]	.69 [17.5]	2.84 [72.2]	3.10 [78.7]	1.55 [39.4]	1.73 [43.9]	.98 [25.0]	1.73 [44.1]	1/4	0-30
BR-322											0-60
BR-323											0-120
BR-341	3.72 [94.6]	5.83 [148.2]	.70 [17.8]	2.87 [73.0]	3.00 [76.2]	1.50 [38.0]	1.73 [44.1]	1.15 [29.2]	1.90 [48.3]	1/2	0-30
BR-342											0-60
BR-343											0-120

*MOUNTING BRACKET INSTALLATION OPTIONAL





See our Web site www.AutomationDirect.com for complete Engineering drawings.



Precision Pneumatic BR Series Accessories				
Part No.	*Price*	*Description*	*Material*	*Weight (lbs)*
BBKT-3	$6.00	NITRA mounting bracket. For use with BFR-3 and BR-3 series air prep components.	Plated steel	0.1

Precision Pneumatic - CR Series Regulators



CR-735

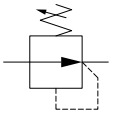
NITRA® CR Series Precision Regulators are designed for applications that require high flow capacity and accurate process control. A poppet valve balanced by a rolling diaphragm insures a constant output pressure even during wide supply pressure variations. Stability of regulated pressure is maintained under varying flow conditions through the use of an aspirator tube which adjusts the air supply in accordance with the flow velocity.

Features

- Diecast aluminum alloy body
- Stainless steel, brass, plated steel, and acetal internal components
- Buna-N elastomer, polyester fabric diaphragm
- Mounting by pipe or bracket
- High flow capacity
- High relief capacity
- 1/4", 3/8", and 1/2" NPT ports
- 2 pressure ranges available
- Made in the USA



Mounting bracket not included.



Air Regulator



See www.AutomationDirect.com for a wide variety of fitting options

Precision Pneumatic CR Series Regulators

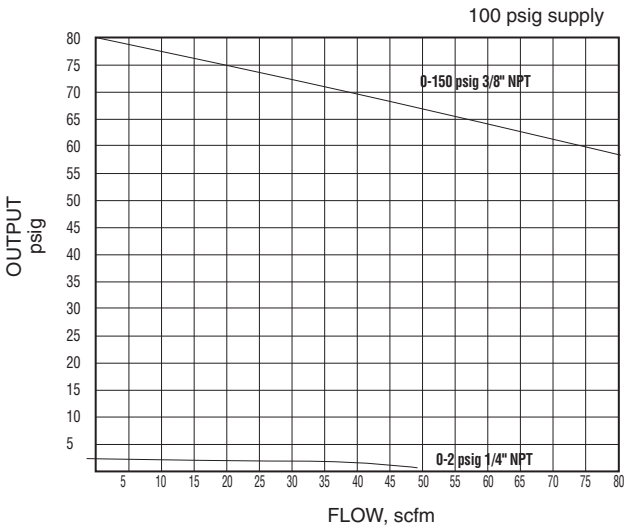
Part No.	Price	Weight (lbs)	Port Size (FNPT)	Fluid	Temperature	Operating Pressure	Maximum Supply Pressure	Exhaust Capacity	Sensitivity	Air Consumption	Effect of Supply Pressure Variation
CR-724	$69.00	1.5	1/4"	Air & Inert gases	-40~160°F (-40~71°C)	0-2 psi (0-0.14 MPa) (0-0.15 bar)	250psi (1.72 MPa) (17bar)	4 scfm (120 Nl/min) with downstream pressure 5 psig (0.3 bar) above set point	1/8" [3.2mm] of water	Steady State: From 1.0 to 12.5 scfh (30 to 375 Nl/min), depending on output pressure range	Less than 0.1 psi (0.007 bar) for 100 psi (6.7 bar) change
CR-725	$64.00	1.5	1/4"			0-150 psi (0-1.03 MPa) (0-10 bar)					
CR-734	$69.00	1.5	3/8"			0-2 psi (0-0.14 MPa) (0-0.15 bar)					
CR-735	$64.00	1.5	3/8"			0-150 psi (0-1.03 MPa) (0-10 bar)					
CR-744	$81.00	1.5	1/2"			0-2 psi (0-0.14 MPa) (0-0.15 bar)					
CR-745	$78.00	1.5	1/2"			0-150 psi (0-1.03 MPa) (0-10 bar)					

Note: A filter (40 micron or less) is recommended ahead of regulator. If lubricator is used, it should be downstream of regulator.

Precision Pneumatic - CR Series Regulators

Performance Chart

CR-X



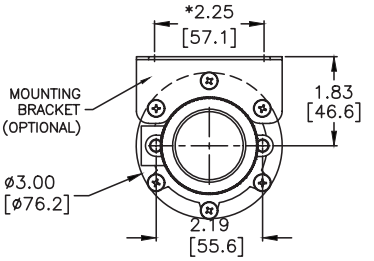
Dimensions

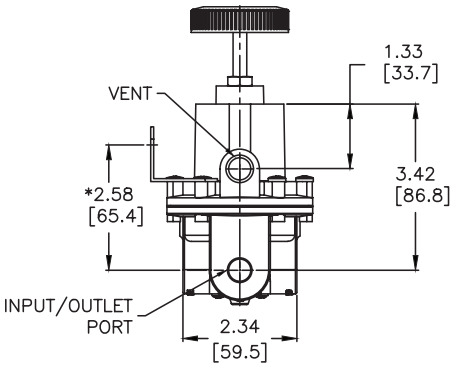
Inches [mm]

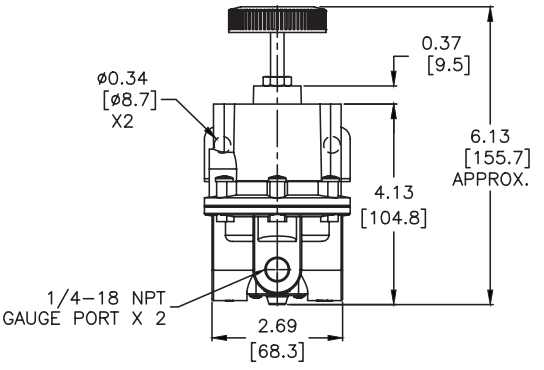
CR-X

PART NUMBER	PRESSURE RANGE PSI	INLET/OUTLET PORT SIZE
CR-724	0-2	1/4
CR-725	0-150	1/4
CR-734	0-2	3/8
CR-735	0-150	3/8
CR-744	0-2	1/2
CR-745	0-150	1/2

*DIMENSIONS TO MOUNTING HOLES FOR OPTIONAL BRACKET







See our Web site www.AutomationDirect.com for complete Engineering drawings.



Precision Pneumatic CR Series Accessories				
Part No.	***Price***	***Description***	***Material***	***Weight (lbs)***
CBKT-7	$6.00	NITRA mounting bracket. For use with CR-7 series air prep components.	Plated steel	0.1

Precision Pneumatic - DR Series Regulators



DR-126

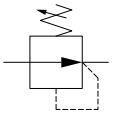
NITRA® DR Series Precision Regulators are well suited for processes that require precise regulation of air pressure in pipes and vessels. The DR Series is often used for: precision fluid control, air gauging, gas mixing, calibration standards, gate actuators, cylinder loading, and web tensioning.

Features

- Diecast zinc alloy body
- Stainless steel, brass, plated steel, and acetal internal components
- Buna-N elastomer, polyester fabric diaphragm
- Mounting by pipe or bracket
- (2) 1/4" NPT gauge ports
- 1/4" and 3/8" NPT ports
- Made in the USA



Mounting bracket not included.



Air Regulator



See www.AutomationDirect.com for a wide variety of fitting options

Precision Pneumatic DR Series Regulators

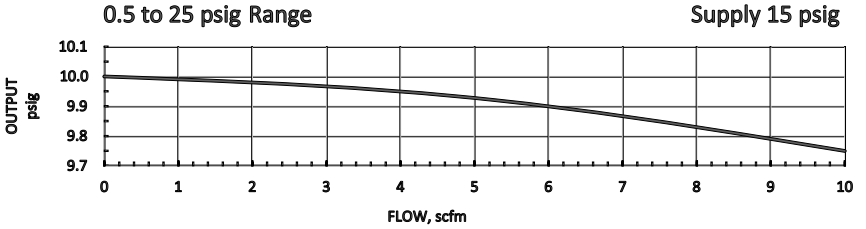
Part No.	Price	Weight (lbs)	Port Size (FNPT)	Fluid	Temperature	Operating Pressure	Maximum Supply Pressure	Pilot Pressure Chamber Bleed Rate	Exhaust Capacity	Sensitivity	Air Consumption	Effect of Supply Pressure Variation
DR-123	$81.00	1.4	1/4"	Air & Inert gases	-20~160°F (-29~71°C)	2-120 psi (0.014-0.83 MPa) (0.138-8.27 bar)	150psi (1.03 MPa) (10.5 bar)	less than 0.08 scfm (2.4 Nl/min)	3 scfm (90 Nl/min) with downstream pressure 5 psig (0.3 bar) above set point	1/8" [3.2mm] of water	6 scfh (3 Nl/min)	Less than 0.005 psi (0.003 bar) for 25 psig (1.7 bar) change
DR-126	$97.00	1.4	1/4"			0.5-25 psi (0.003-0.17 MPa) (0.03-1.72 bar)	50psi (0.34 MPa) (3.4 bar)					
DR-133	$82.00	1.4	3/8"			2-120 psi (0.014-0.83 MPa) (0.138-8.27 bar)	150psi (1.03 MPa) (10.5 bar)					

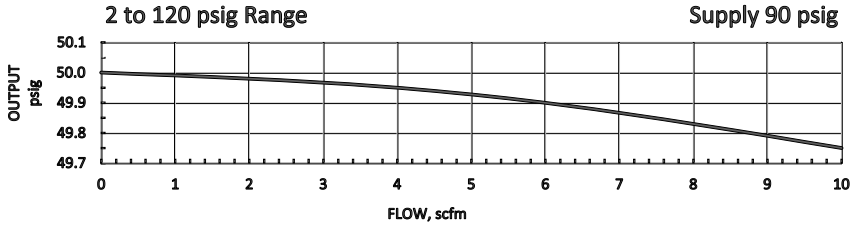
Note: A filter (40 micron or less) is recommended ahead of regulator. If lubricator is used, it should be downstream of regulator.

Precision Pneumatic - DR Series Regulators

Performance Charts

DR-X





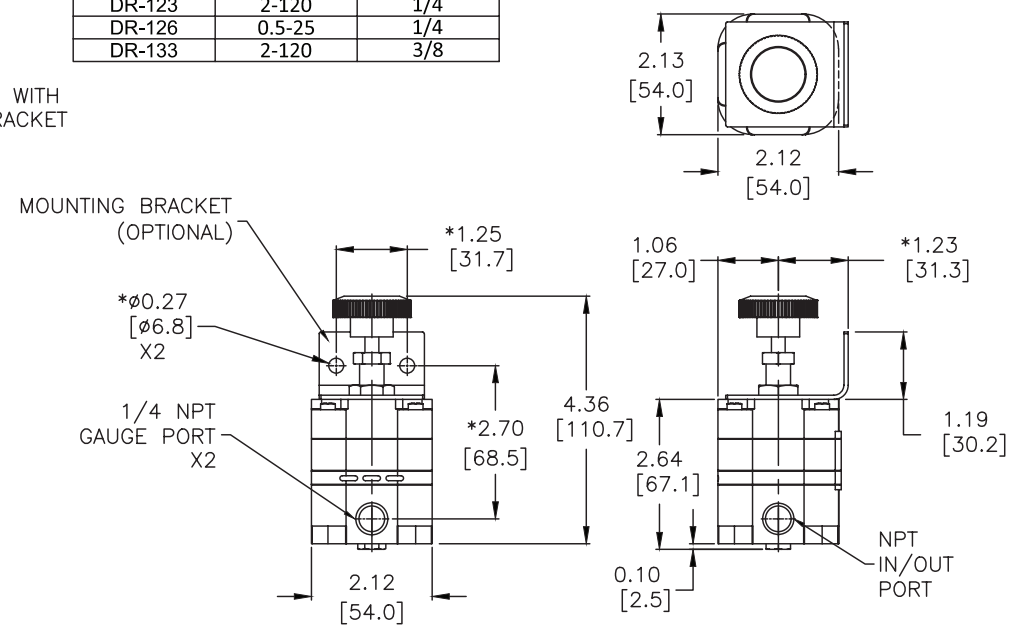
Dimensions

Inches [mm]

PART NUMBER	PRESSURE RANGE PSI	INLET/OUTLET PORT SIZE NPT
DR-123	2-120	1/4
DR-126	0.5-25	1/4
DR-133	2-120	3/8

DR-X

*DIMENSIONS WITH OPTIONAL BRACKET INSTALLED



See our Web site www.AutomationDirect.com for complete Engineering drawings.



Precision Pneumatic DR Series Accessories				
Part No.	***Price***	***Description***	***Material***	***Weight (lbs)***
DBKT-1	$9.00	NITRA mounting bracket. For use with DR-1 series air prep components.	Plated Steel	0.1

Precision Pneumatic - ER Series Regulators



ER-913

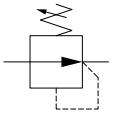
NITRA® ER Series Precision Regulators are miniature regulators that are designed to provide the highest level of regulation accuracy and repeatability available in a compact, lightweight housing. A force balanced pilot control maintains output pressure to within 0.05 psig (3.44 millibar) with minimal drift over time. They are ideal for applications that require exact pressure control and substantial flow capacity under variable operating conditions with limited space.

Features

- Diecast aluminum alloy, chromate and epoxy paint housing
- Nitrile elastomers
- Brass, aluminum, stainless steel and zinc plated internals
- Mounting by pipe or bracket
- (2) 1/8" NPT gauge ports
- Made in the USA



Mounting bracket not included.



Air Regulator



See www.AutomationDirect.com for a wide variety of fitting options

Precision Pneumatic ER Series Regulators

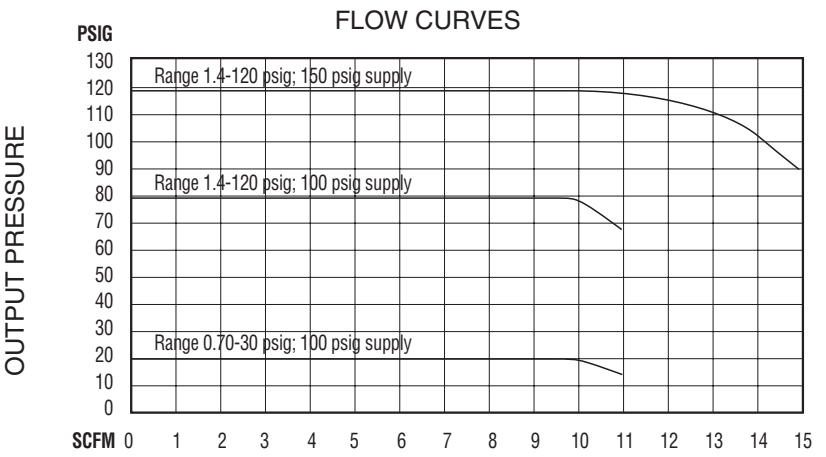
Part No.	Price	Weight (lbs)	Port Size (FNPT)	Fluid	Temperature	Operating Pressure	Supply Pressure Sensitivity	Maximum Supply Pressure	Exhaust Capacity	Sensitivity	Air Consumption	Repeatability
ER-911	$56.00	0.4	1/8"	Air & Inert gases	0~160°F (-18~71°C)	0.7-30 psig (0.005-0.21 MPa) (0.048-2.07 bar)	0.5 psig (0.034 bar) for a 100 psig (6.9 bar) change	150psi (1.03 MPa) (10.5 bar)	7 scfm (199 Nl/min)	1/4" [6.4mm] of water	6 scfh (170 Nl/hr) @ 150psig (10 bar) supply	±0.3% of span
ER-913	$56.00	0.4	1/8"			1.4-120 psig (0.010-0.83 MPa) (0.138-8.27 bar)						

Note: A filter (40 micron or less) is recommended ahead of regulator. If lubricator is used, it should be downstream of regulator.

Precision Pneumatic - ER Series Regulators

Performance Charts

ER-X

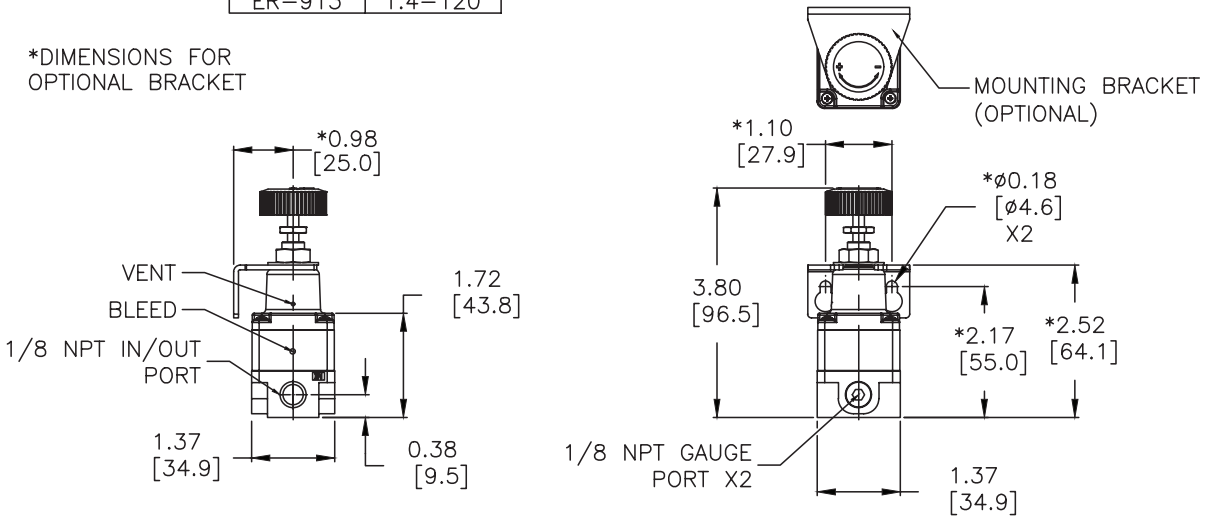


Dimensions

Inches [mm]

ER-X

PART NUMBER	PRESSURE RANGE PSI
ER–911	0.7–30
ER–913	1.4–120



See our Web site www.AutomationDirect.com for complete Engineering drawings.



Precision Pneumatic ER Series Accessories				
Part No.	***Price***	***Description***	***Material***	***Weight (lbs)***
EBKT-9	$7.00	NITRA mounting bracket. For use with ER-9 series air prep components.	Plated steel	0.1

Pneumatic Air Preparation - AL Series Lubricators



AL-66



Modular Assembly Example



AL-32



AL-21

NITRA® pneumatic mist type air lubricators are available with 1/8", 1/4", 3/8", 1/2", 3/4" or 1" NPT female port sizes and a lubrication rate adjustment with sight gauge to meet a broad range of pneumatic air supply lubrication applications. All-metal bowls with sight gauge are available on all sizes. Polycarbonate bowls are available on 2x, 3x and 4x sizes, with metal bowl guards included on 3x and 4x sizes.

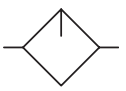
Provided with a mounting bracket for stand-alone applications, the modular design also enables easy field assembly for combining with NITRA pneumatic filters and regulators (using modular assembly brackets purchased separately).

Features

- 1/8", 1/4", 3/8", 1/2", 3/4" and 1" NPT female port sizes
- All-metal bowls with sight gauge available on all sizes. Polycarbonate bowls available on 2x, 3x and 4x sizes, with metal bowl guards included on 3x and 4x sizes.
- Adjustable lubrication rate
- Mounting bracket provided for stand-alone applications
- Modular design enables easy field assembly for combining with NITRA filters and regulators
- Lubricators can be filled while pressurized
- 2 year warranty



Mounting bracket included.



Air Lubricator



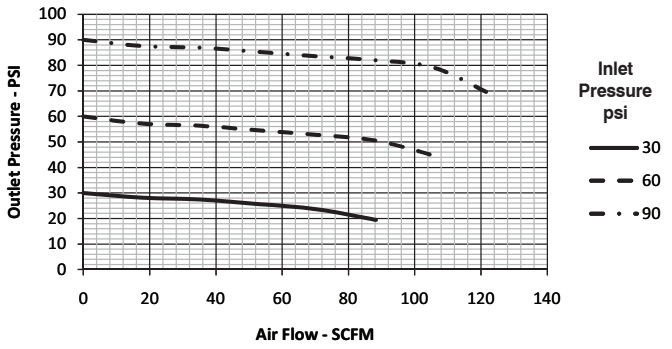


See www.AutomationDirect.com for a wide variety of fitting options

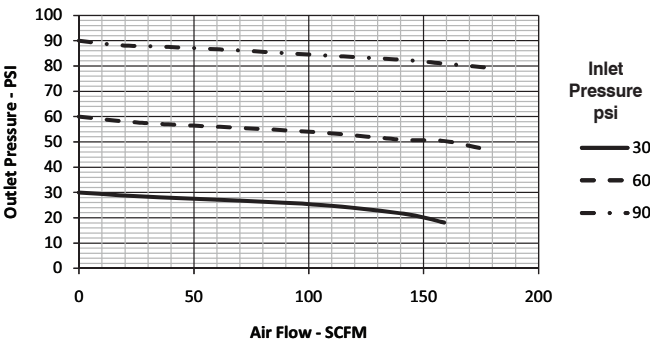
AL Series Lubricators										
Part No.	**Price**	**Weight (lbs)**	**Port Size**	**Bowl**	**Fluid**	**Temperature**	**Operating Pressure**	**Maximum Pressure**	**Proof Pressure**	**Recommended Lubricant**
AL-21	$13.50	0.4	1/8'	25cc Polycarbonate	Air	23~140°F (-5~60°C)	20~130psi (0.14~0.90MPa) (1.4~9.0 bar)	130psi (0.90MPa) (9.0 bar)	215psi (1.5MPa) (15 bar)	Non-Detergent SAE10, ISO VG32 or equivalent
AL-21-D	$15.50	0.5		32cc Metal with sight gauge						
AL-22	$13.50	0.4	1/4"	25cc Polycarbonate						
AL-22-D	$15.50	0.5		32cc Metal with sight gauge						
AL-32	$19.00	1.0		75cc Polycarbonate with metal bowl guard						
AL-32-D	$28.50	1.0		75cc Metal with sight gauge						
AL-33	$19.00	1.0	3/8"	75cc Polycarbonate with metal bowl guard						
AL-33-D	$28.50	1.0		75cc Metal with sight gauge						
AL-44	$26.50	1.9	1/2"	160cc Polycarbonate with metal bowl guard						
AL-44-D	$42.00	1.8		160cc Metal with sight gauge						
AL-66	$44.50	3.5	3/4"	380cc Metal with sight gauge						
AL-68	$44.50	3.8	1"							

Pneumatic Air Preparation - AL Series Lubricators

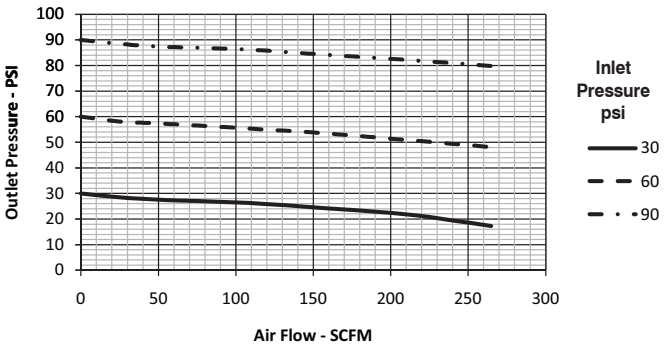
Performance Charts



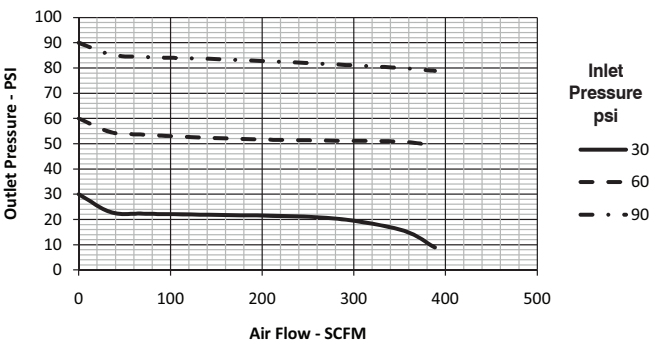
AL-2x



AL-3x



AL-44



AL-6x

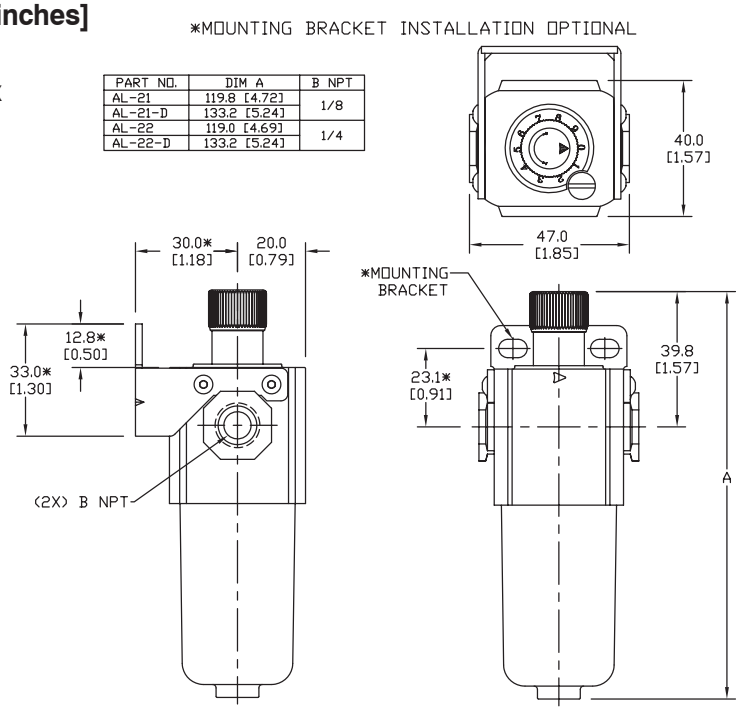
Dimensions

mm [inches]

AL-2x

*MOUNTING BRACKET INSTALLATION OPTIONAL

PART NO.	DIM A	B NPT
AL-21	119.8 [4.72]	1/8
AL-21-D	133.2 [5.24]	
AL-22	119.0 [4.69]	1/4
AL-22-D	133.2 [5.24]	



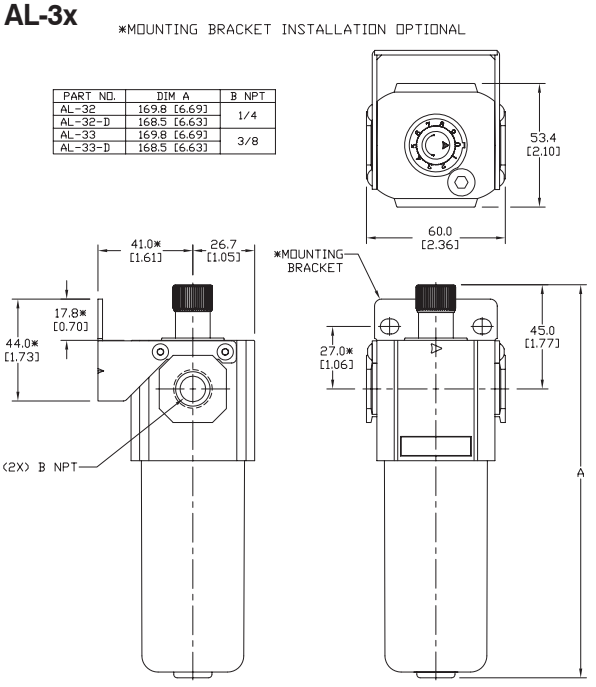
See our Web site www.AutomationDirect.com for complete Engineering drawings.

Pneumatic Air Preparation - AL Series Lubricators

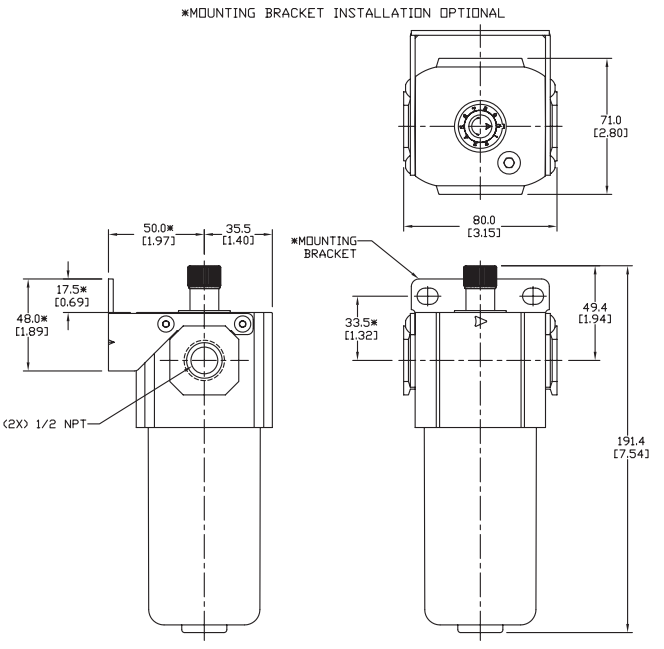
Dimensions

mm [inches]

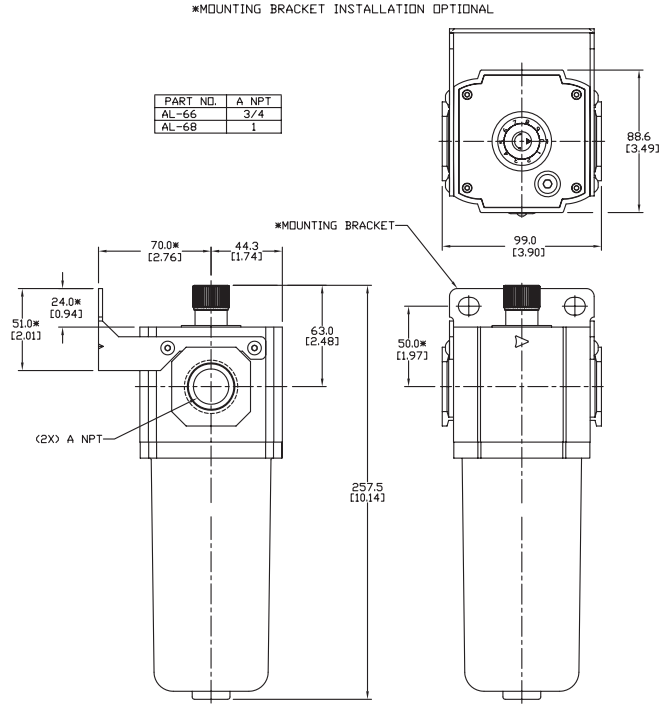
AL-3x



AL-4x



AL-6x



Note: Unit dimensions are the same for listed models; port NPT varies based on model.

See our Web site www.AutomationDirect.com for complete Engineering drawings.

Pneumatic Air Preparation - AFR Series Combination Filter and Regulators



AFR-6633



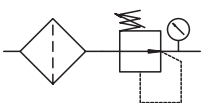
AFR-3233



AFR-2133



Mounting bracket included.



Combination Filter-Regulator

NITRA® pneumatic combination particulate / moisture separation air filters and adjustable pressure regulators are available with 1/8", 1/4", 3/8", 1/2", 3/4" or 1" NPT female port sizes to meet a broad range of pneumatic air supply filtration and regulation applications all in a single convenient unit. Available with either a manual, semi-automatic, or automatic drain. All-metal bowls with sight gauge are available on all sizes. Polycarbonate bowls are available on 2xxx, 3xxx and 4xxx sizes, with metal bowl guards included on 3xxx and 4xxx sizes. Replaceable 40 micron filter elements are standard. An optional 5 micron filter element (purchased separately and customer installable) is available when stricter filtration is required.

The pressure regulator features a locking pressure adjustment knob, integral pressure gauge and is available in adjustable pressure ranges of 20 - 130 psi. The regulator will relieve downstream pressure if the setpont is reduced.

Provided with a mounting bracket for stand-alone applications, the modular design also enables easy field assembly with NITRA pneumatic lubricators (using modular assembly brackets purchased separately).

Features

- Air filtration and regulation all in a single convenient unit
- 1/8", 1/4", 3/8", 1/2", 3/4" and 1" NPT female port sizes
- 40 micron replaceable filter element standard; for stricter filtration an optional 5 micron filter element purchased separately is easily customer installable
- All-metal bowls with sight gauge available on all sizes. Polycarbonate bowls available on 2xxx, 3xxx and 4xxx sizes, with metal bowl guards included on 3xxx and 4xxx sizes.
- Manual, semi-automatic, and automatic drains available
- Adjustable ranges of 20-130 psi
- Locking pressure adjustment knob
- Integral pressure gauge
- Mounting bracket provided for stand-alone applications
- Modular design enables easy field assembly with NITRA lubricators
- 2 year warranty





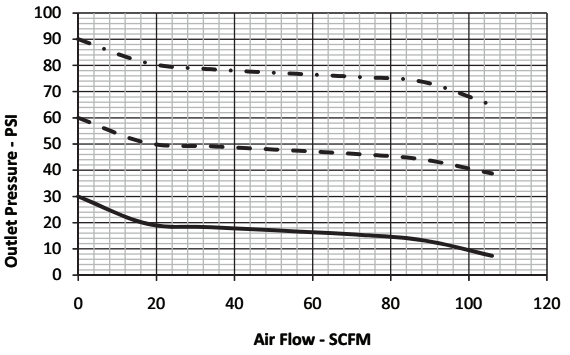
See www.AutomationDirect.com for a wide variety of fitting options

Pneumatic Air Preparation - AFR Series Combination Filter and Regulators

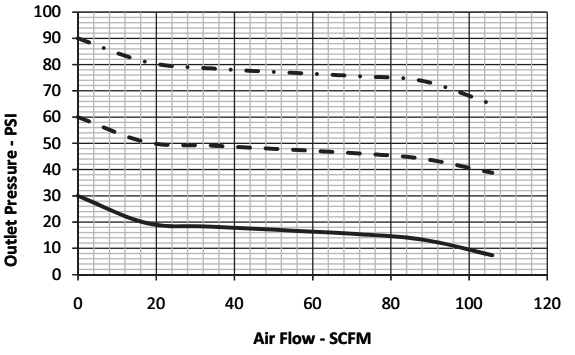
AFR Series Combination Filter and Regulators											
Part No.	**Price**	**Weight (lbs)**	**Port Size (FNPT)**	**Drain Bowl Capacity**	**Drain Type**	**Fluid**	**Temperature**	**Filtering Grade**	**Operating Pressure**	**Maximum Pressure**	**Proof Pressure**
AFR-2133-M	$23.50	0.7	1/8"	10cc Polycarbonate	Manual	Air	23~140°F (-5~60°C)	40µ (5µ element can be ordered separately and field installed)	20~130psi (0.14~0.90MPa) (1.4~9.0 bar)	145psi (1.0MPa) (10 bar)	215psi (1.5MPa) (15 bar)
AFR-2133	$24.50	0.7			Semi-automatic						
AFR-2133-MD	$29.00	0.7		17cc Metal with sight gauge	Manual						
AFR-2133-D	$30.00	0.7			Semi-automatic						
AFR-2233-M	$29.00	0.7	1/4"	10cc Polycarbonate	Manual						
AFR-2233	$24.50	0.7			Semi-automatic						
AFR-2233-MD	$29.00	0.7		17cc Metal with sight gauge	Manual						
AFR-2233-D	$30.00	0.7			Semi-automatic						
AFR-3233-M	$34.00	1.3		40cc Polycarbonate with metal bowl guard	Manual						
AFR-3233	$31.50	1.4			Semi-automatic						
AFR-3233-A	$48.00	1.4			Automatic						
AFR-3233-MD	$49.50	1.3		40cc Metal with sight gauge	Manual						
AFR-3233-D	$52.00	1.3			Semi-automatic						
AFR-3233-AD	$57.00	1.3			Automatic						
AFR-3333-M	$34.00	1.3	3/8"	40cc Polycarbonate with metal bowl guard	Manual						
AFR-3333	$31.50	1.3			Semi-automatic						
AFR-3333-A	$48.00	1.4			Automatic						
AFR-3333-MD	$48.50	1.3		40cc Metal with sight gauge	Manual						
AFR-3333-D	$50.50	1.3			Semi-automatic						
AFR-3333-AD	$67.00	1.3			Automatic						
AFR-4433-M	$48.00	2.4	1/2"	80cc Polycarbonate with metal bowl guard	Manual						
AFR-4433	$49.00	2.5			Semi-automatic						
AFR-4433-A	$66.00	2.5			Automatic						
AFR-4433-MD	$60.00	2.4		80cc Metal with sight gauge	Manual						
AFR-4433-D	$62.00	2.4			Semi-automatic						
AFR-4433-AD	$72.00	2.4			Automatic						
AFR-6633-M	$71.00	6.4	3/4"	230cc Metal with sight gauge	Manual						
AFR-6633	$72.00	6.4			Semi-automatic						
AFR-6633-A	$95.00	6.5			Automatic						
AFR-6833-M	$87.00	6.5	1"		Manual						
AFR-6833	$90.00	6.4			Semi-automatic						
AFR-6833-A	$107.00	6.4			Automatic						

Pneumatic Air Preparation - AFR Series Combination Filter and Regulators

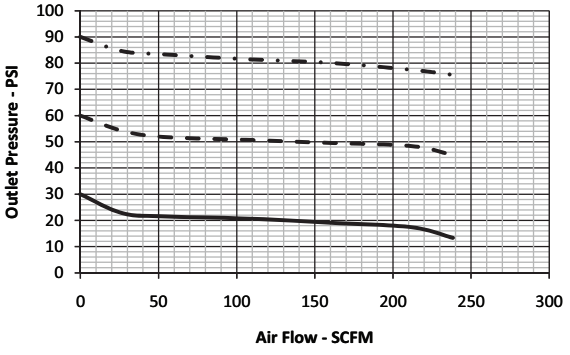
Performance Charts



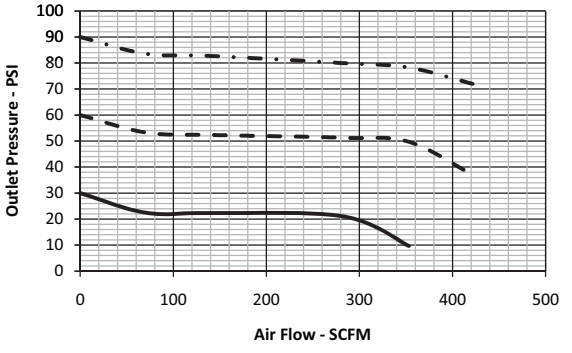
AFR-2x



AFR-3x



AFR-4x



AFR-6x

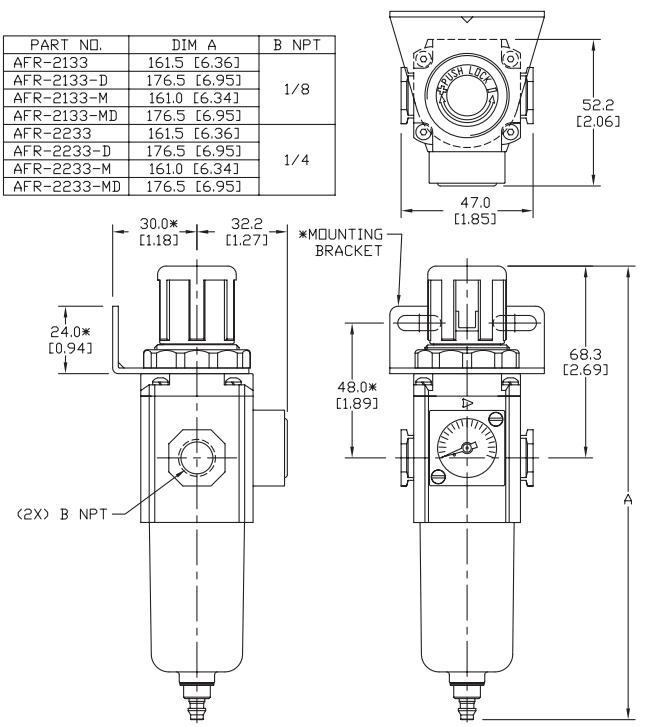
Dimensions

mm [inches]

AFR-2x

*MOUNTING BRACKET INSTALLATION OPTIONAL

PART NO.	DIM A	B NPT
AFR-2133	161.5 [6.36]	1/8
AFR-2133-D	176.5 [6.95]	
AFR-2133-M	161.0 [6.34]	
AFR-2133-MD	176.5 [6.95]	
AFR-2233	161.5 [6.36]	1/4
AFR-2233-D	176.5 [6.95]	
AFR-2233-M	161.0 [6.34]	
AFR-2233-MD	176.5 [6.95]	



See our Web site www.AutomationDirect.com for complete Engineering drawings.

Pneumatic Air Preparation - AFR Series Combination Filter and Regulators

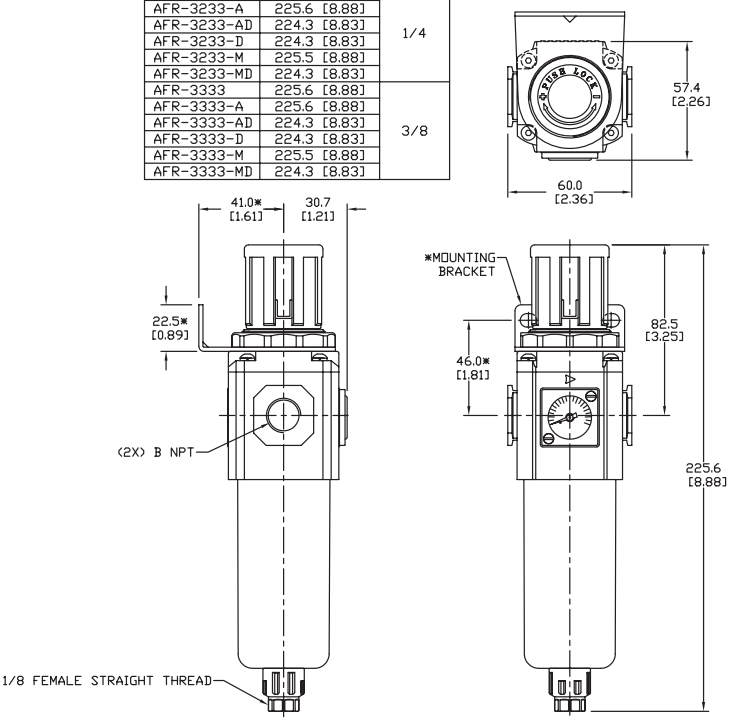
Dimensions

mm [inches]

AFR-3x

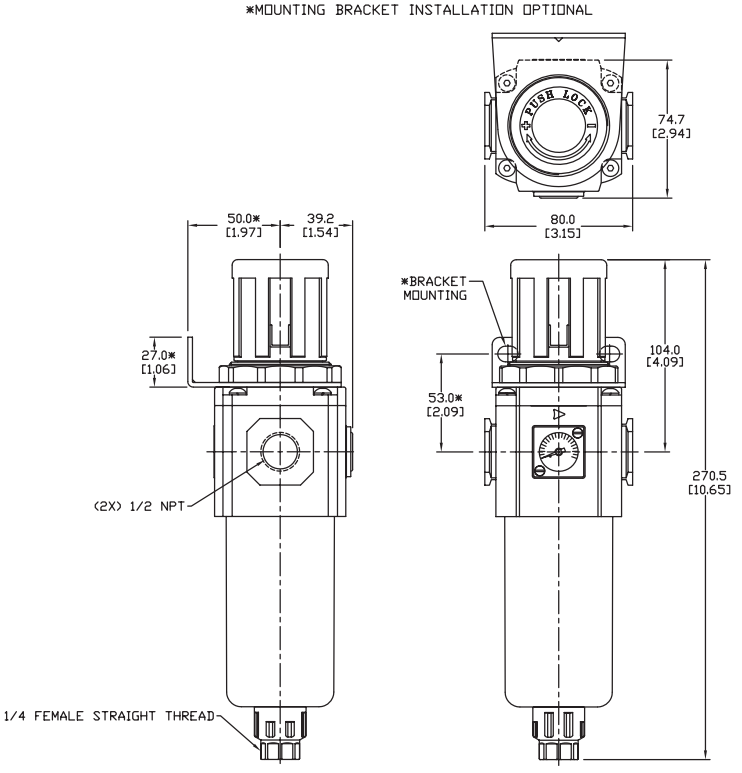
*MOUNTING BRACKET INSTALLATION OPTIONAL

PART NO.	DIM A	B NPT
AFR-3233	225.6 [8.88]	1/4
AFR-3233-A	225.6 [8.88]	
AFR-3233-AD	224.3 [8.83]	
AFR-3233-D	224.3 [8.83]	
AFR-3233-M	225.5 [8.88]	
AFR-3233-MD	224.3 [8.83]	
AFR-3333	225.6 [8.88]	3/8
AFR-3333-A	225.6 [8.88]	
AFR-3333-AD	224.3 [8.83]	
AFR-3333-D	224.3 [8.83]	
AFR-3333-M	225.5 [8.88]	
AFR-3333-MD	224.3 [8.83]	



AFR-4x

*MOUNTING BRACKET INSTALLATION OPTIONAL

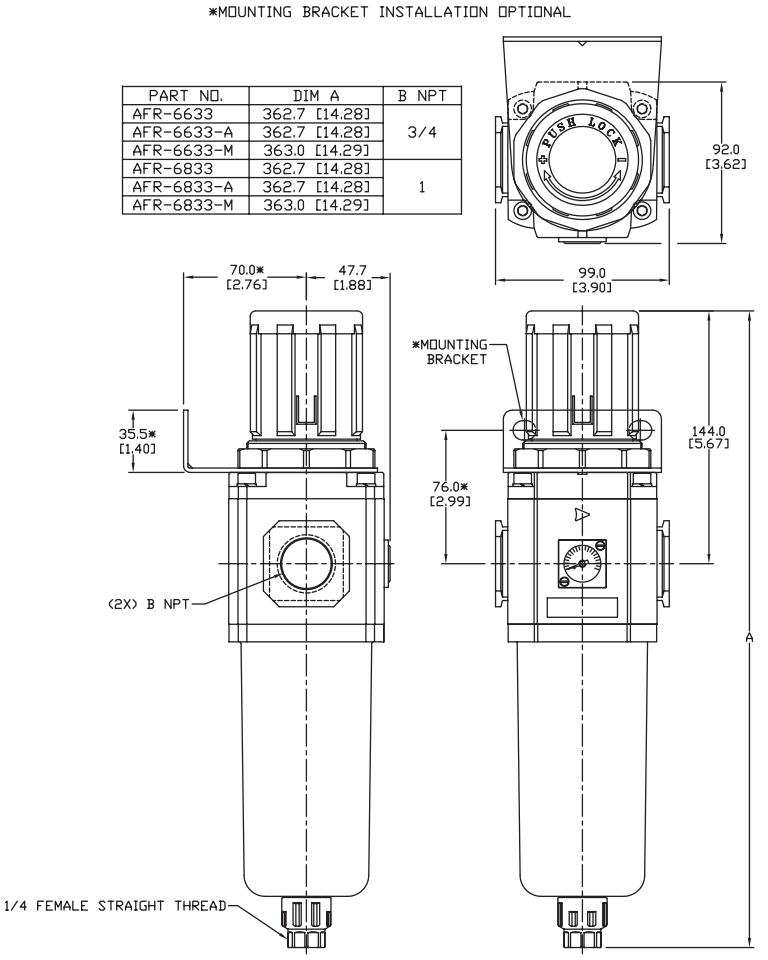


Note: Unit dimensions are the same for listed models, port NPT varies based on model.

See our Web site www.AutomationDirect.com for complete Engineering drawings.

Pneumatic Air Preparation - AFR Series Combination Filter and Regulators

AFR-6x



PART NO.	DIM A	B NPT
AFR-6633	362.7 [14.28]	3/4
AFR-6633-A	362.7 [14.28]	
AFR-6633-M	363.0 [14.29]	
AFR-6833	362.7 [14.28]	1
AFR-6833-A	362.7 [14.28]	
AFR-6833-M	363.0 [14.29]	

Note: Unit dimensions are the same for listed models, port NPT varies based on model.

See our Web site www.AutomationDirect.com for complete Engineering drawings.

Pneumatic - BFR Series Combination Filter and Regulators



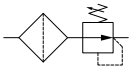
BFR-3233



BFR-3431



Mounting bracket not included.



Air Filter / Regulator

NITRA® BFR Series Precision combination filter and regulators are designed for use in systems that require clean, accurate instrument air. They are constructed of durable materials ideal for industrial environments.

Features

- Diecast aluminum alloy, irridite and baked epoxy finish body
- Nitrile elastomer and nylon fabric diaphragm
- Nitrile elastomer valve seat
- Additional build materials include: brass, zinc plated steel and acetal
- Mounting on pipe, bracket or through body direct
- 40 micron polyethylene filter (5 micron optional)
- 1/4" and 1/2" NPT ports
- (2) 1/4" NPT gauge ports
- Manual drain
- Made in the USA



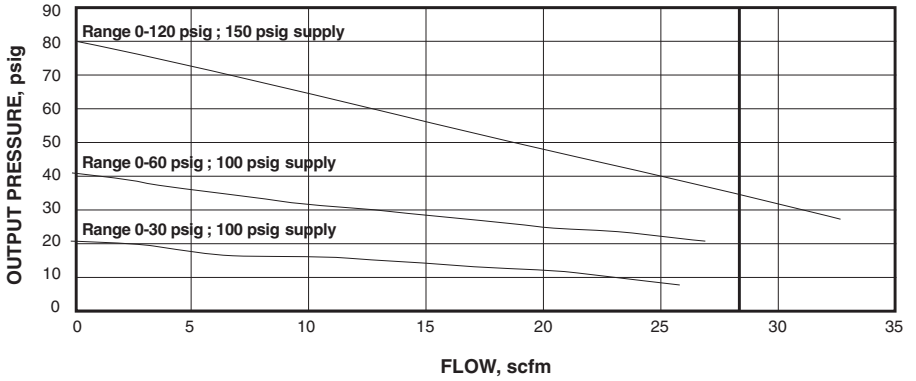
See www.AutomationDirect.com for a wide variety of fitting options

Pneumatic BFR Series Filter / Regulators

Part No.	Price	Weight (lbs)	Port Size (FNPT)	Fluid	Temperature	Operating Pressure	Maximum Supply Pressure	Exhaust Capacity	Sensitivity	Air Consumption	Effect of Supply Pressure Variation
BFR-3231	$42.00	0.4	1/4"	Air & Inert gases	0~160°F (-18~71°C)	0-30psi (0-0.21 MPa) (0-2 bar)	250psi (1.72 MPa) (17bar)	0.1 scfm (2.83 Nl/min) with downstream pressure 5 psig (0.3 bar) above set point	1" of water	Less than 5 scfh (2.5 Nl/min)	Less than 0.25 psig (0.017 bar) for 25 psig (1.7 bar) change
BFR-3232	$42.00	0.4	1/4"			0-60psi (0-0.41 MPa) (0-4 bar)					
BFR-3233	$42.00	0.4	1/4"			0-120psi (0-0.83 MPa) (0-8 bar)					
BFR-3431	$89.00	0.4	1/2"			0-30psi (0-0.21 MPa) (0-2 bar)					Less than 0.5 psig (0.035 bar) for 25 psig (1.7 bar) change
BFR-3432	$89.00	0.4	1/2"			0-60psi (0-0.41 MPa) (0-4 bar)					
BFR-3433	$89.00	0.4	1/2"			0-120psi (0-0.83 MPa) (0-8 bar)					

Performance Chart

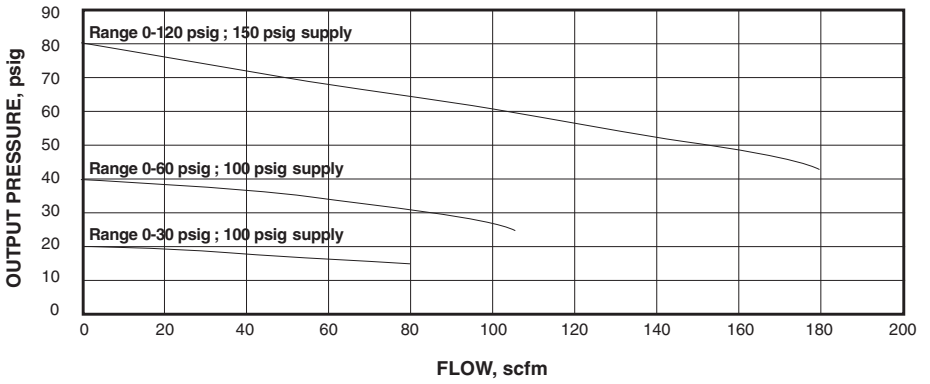
BFR 1/4" NPT



Pneumatic - BFR Series Combination Filter and Regulators

Performance Chart

BFR 1/2" NPT



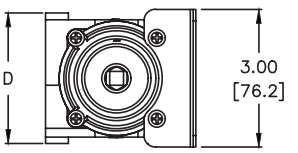
Dimensions

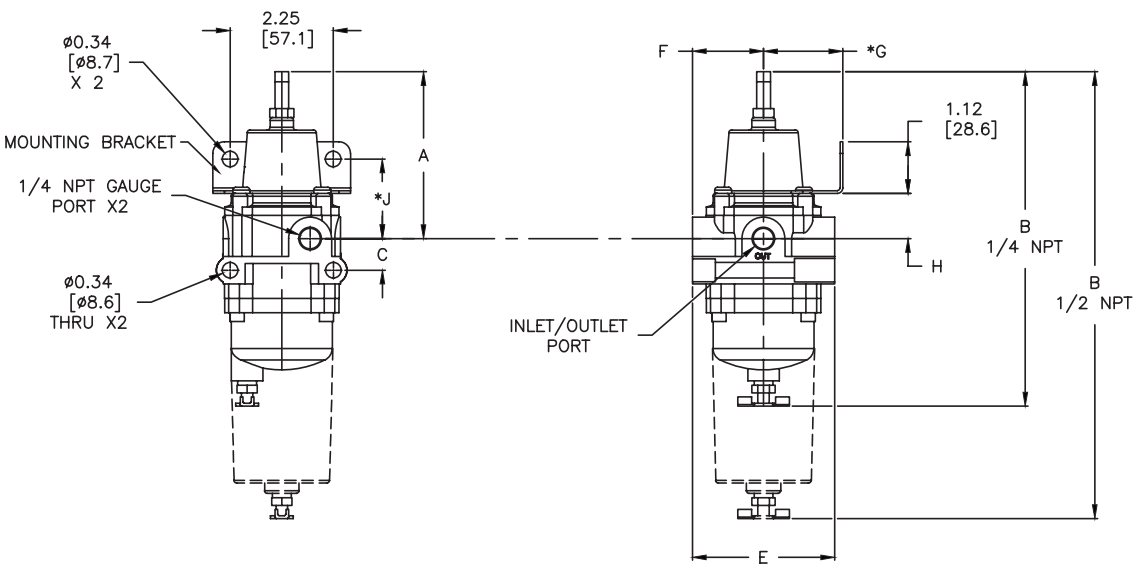
Inches [mm]

BFR-X

PART NUMBER	A	B	C	D	E	F	G	H	J	I/O PORT	PSI RANGE
BFR-3231	3.64 [92.4]	7.29 [185.2]	0.69 [17.5]	2.84 [72.2]	3.10 [78.7]	1.55 [39.4]	1.73 [43.9]	.98 [25.0]	1.73 [44.1]	1/4	0-30
BFR-3232											0-60
BFR-3233											0-120
BFR-3431	3.72 [94.6]	9.78 [248.4]	.70 [17.8]	2.87 [73.0]	3.00 [76.2]	1.5 [38.0]	1.73 [44.1]	1.15 [29.2]	1.90 [48.3]	1/2	0-30
BFR-3432											0-60
BFR-3433											0-120

*MOUNTING BRACKET INSTALLATION OPTIONAL





See our Web site www.AutomationDirect.com for complete Engineering drawings.

Precision Pneumatic - BFR Series Combination Filter and Regulators



BFE-43



BBKT-3

Pneumatic BFR Series Accessories				
Part No.	***Price***	***Description***	***Material***	***Weight (lbs)***
BFE-31	$10.00	NITRA filter element, 5 micron. For use with BFR-32 series filter regulators.	Polyethylene (PE)	0.1
BFE-33	$10.00	NITRA filter element, 40 micron. For use with BFR-32 series filter regulators.	Polyethylene (PE)	0.1
BFE-41	$10.00	NITRA filter element, 5 micron. For use with BFR-34 series filter regulators.	Polyethylene (PE)	0.1
BFE-43	$10.00	NITRA filter element, 40 micron. For use with BFR-34 series filter regulators.	Polyethylene (PE)	0.1
BBKT-3	$6.00	NITRA mounting bracket. For use with BFR-3 and BR-3 series air prep components.	Plated Steel	0.1

Pneumatic Air Preparation - ARV Series Manual Shut-off Pressure Relief Valves



ARV-21 **ARV-32** **ARV-44**



Mounting bracket included.



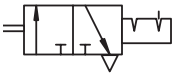
Modular Assembly Example

NITRA® pneumatic manual shut-off pressure relief valves are available with 1/8", 1/4", 3/8" or 1/2" female port sizes to meet a broad range of pneumatic air supply applications. The three-way, two-position (3 threaded ports) design is used to shut off upstream pressure and relieve downstream pressure. The manually rotated knob can be locked out with the included padlock.

Provided with a mounting bracket for stand-alone applications, the modular design also enables easy field assembly with NITRA pneumatic filters, regulators and lubricators (using modular assembly brackets purchased separately).

Features

- 1/8", 1/4", 3/8", and 1/2" NPT female port sizes
- Three-way, two-position (3 threaded ports) design is used to shut off upstream pressure and relieve down-stream pressure
- Manually rotated knob can be locked out with the provided padlock
- Mounting bracket provided for stand-alone applications
- Modular design enables easy field assembly with NITRA filters, regulators, lubricators and combination filter regulators
- 2 year warranty



Manual Shut-off Relief Valve



See www.AutomationDirect.com for a wide variety of fitting options



ARV Series Valves											
Part No.	**Price**	**Weight (lbs)**	**Port Size**	**Fluid**	**Acting Type**	**Valve Type**	**Temperature**	**Operating Pressure**	**Maximum Pressure**	**Proof Pressure**	**Operation Angle**
ARV-21	$21.50	0.6	1/8"	Air	Manual	3 way 2 position (3 threaded ports)	-5~60°C (23~140°F)	20~130psi (0.15~0.90 MPa) (1.5~9.0 bar)	130psi (0.90MPa) (9.0 bar)	215psi (1.5MPa) (15 bar)	90°
ARV-22	$21.50	0.6	1/4"								
ARV-32	$24.50	1.3	1/4"								
ARV-33	$24.50	1.3	3/8"								
ARV-44	$32.50	2.1	1/2"								

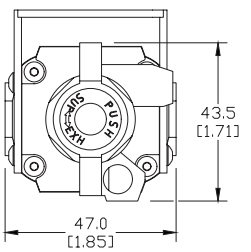
Dimensions

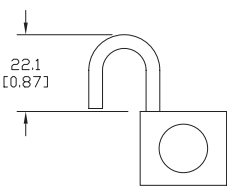
mm [inches]

ARV-2x

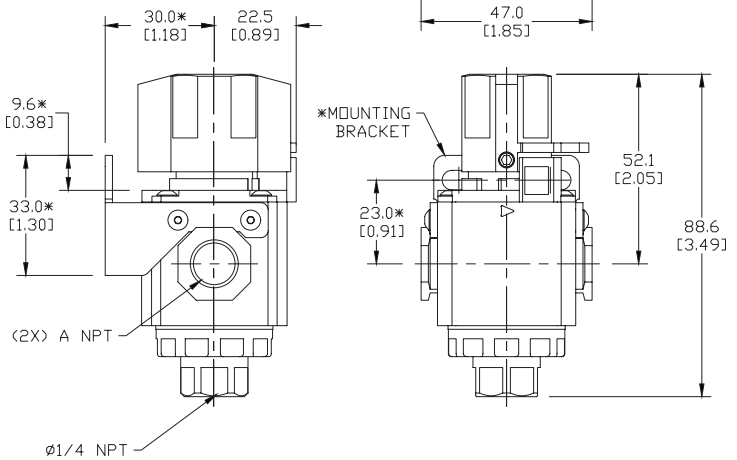
*MOUNTING BRACKET INSTALLATION OPTIONAL

PART NO.	A NPT
ARV-21	1/8
ARV-22	1/4





Note: lock included with valve



Note: Unit dimensions are the same for listed models, port NPT varies based on model.

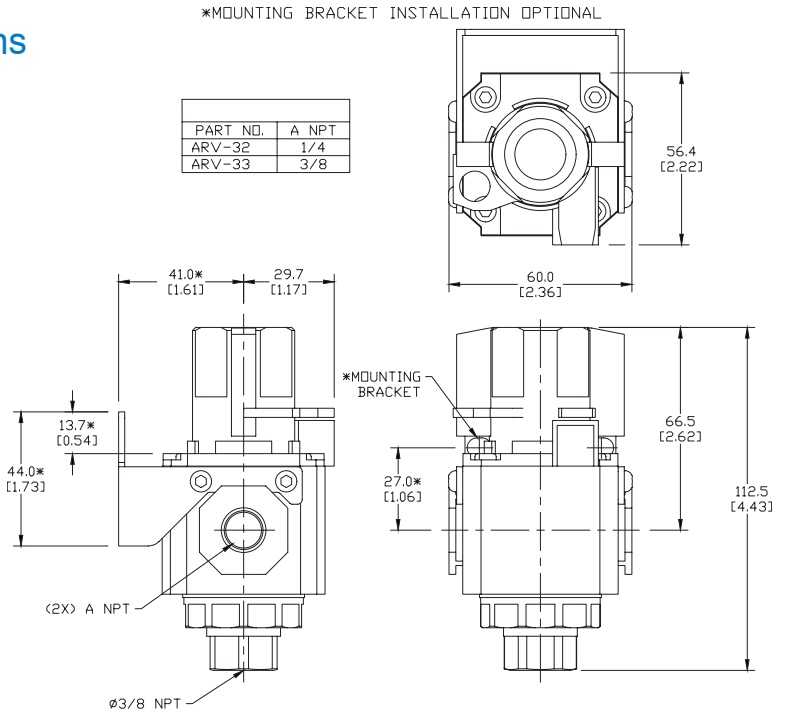
See our Web site www.AutomationDirect.com for complete Engineering drawings.

Pneumatic Air Preparation - ARV Series
Manual Shut-off Pressure Relief Valves

Dimensions

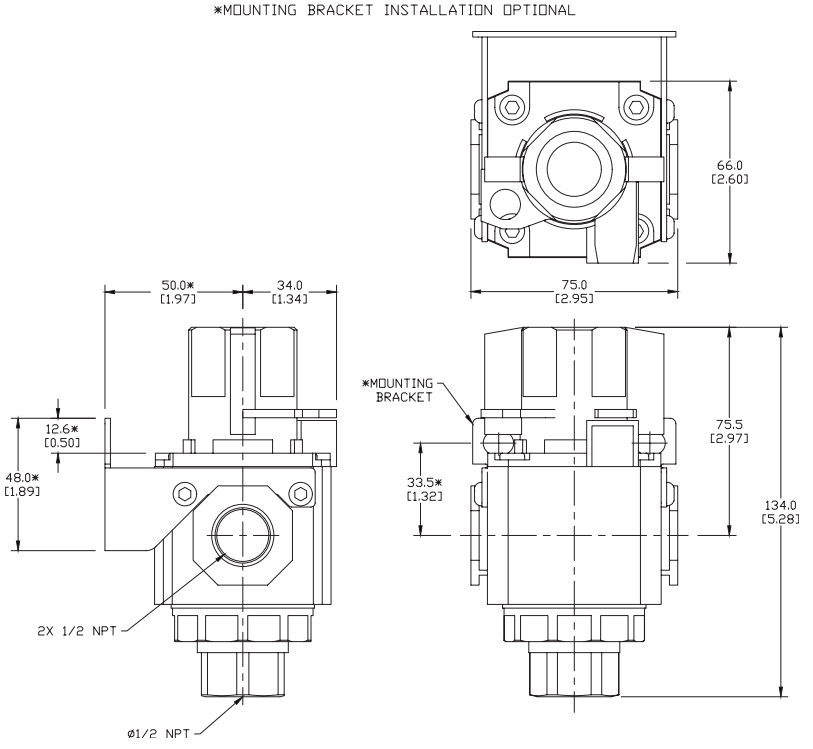
mm [inches]

ARV-3x



PART NO.	A NPT
ARV-32	1/4
ARV-33	3/8

ARV-4x



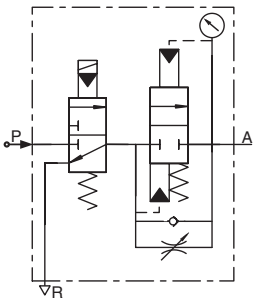
Note: Unit dimensions are the same for listed models, port NPT varies based on model.

See our Web site www.AutomationDirect.com for complete Engineering drawings.

Pneumatic Air Preparation - ASD Series Soft-Start/Dump Valves



ASD Series Valves



NITRA® pneumatic soft start/dump valves are available with 1/8", 1/4", 3/8" or 1/2" NPT female port sizes and 24VDC or 120VAC solenoid voltages to meet a broad range of pneumatic air supply applications. The three-way, two-position (3 threaded ports) design is used to gradually increase air pressure downstream when the solenoid is energized and to shut off upstream pressure and relieve downstream pressure when it is de-energized.

Provided with a mounting bracket for stand-alone applications, the modular design also enables easy field assembly with NITRA pneumatic filters, regulators and lubricators (using modular assembly brackets purchased separately).

Features

- 1/8", 1/4", 3/8" or 1/2" NPT ports
- 24 VDC or 120 VAC solenoid coils
- 11 mm DIN style wiring connector w/LED indication
- Modular design enables easy field assembly with other NITRA components
- Maximum pressure 130psi
- 2 year warranty





See www.AutomationDirect.com for a wide variety of fitting options

ASD Soft-Start/Dump Valve Series Specifications

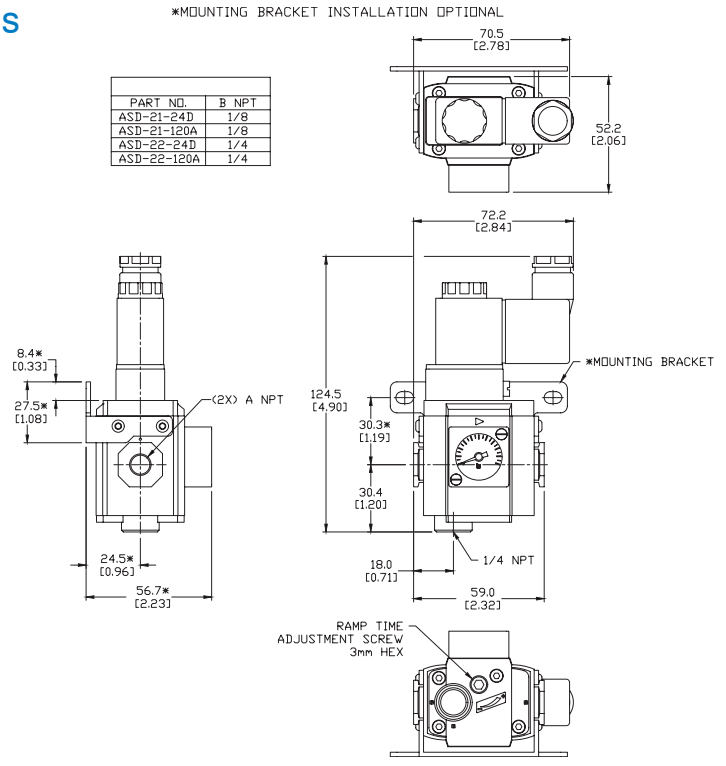
Model	ASD-21-24D	ASD-21-120A	ASD-22-24D	ASD-22-120A	ASD-32-24D	ASD-32-120A	ASD-33-24D	ASD-33-120A	ASD-44-24D	ASD-44-120A
Price	$50.50	$50.50	$50.50	$50.50	$56.00	$56.00	$56.00	$56.00	$88.00	$88.00
Weight (lbs)	0.9	0.9	0.9	0.9	1.4	1.4	1.4	1.4	2.0	2.0
Fluid	Air									
Port Size (FNPT)	1/8"		1/4"				3/8"		1/2"	
Exhaust Size	1/4"				3/8"				1/2"	
Flow Coefficient (Cv)	7.0		7.5		12		15		24	
Acting Type	Solenoid Operated, 3/2 Soft-Start									
Temperature	0 to 160°F (-18 to 71°C)									
Operating Pressure	35-130 psi, (0.24~0.90 MPa), (2.4~9.0 bar)									
Maximum Pressure	145 psi, (1.0 MPa), (10 bar)									
Proof Pressure	215 psi, (1.5 MPa), (15 bar)									
Power Connection	11 mm DIN									
Voltage	24 VDC	120 VAC	24 VDC	120 VAC	24 VDC	120 VAC	24 VDC	120 VAC	24 VDC	120 VAC
Voltage Range	-15% to +10%									
Insulation	B class									
Power Consumption	3.0 W	3.5 VA	3.0 W	3.5 VA	3.0 W	3.5 VA	3.0 W	3.5 VA	3.0 W	3.5 VA

Pneumatic Air Preparation - ASD Series Soft-Start/Dump Valves

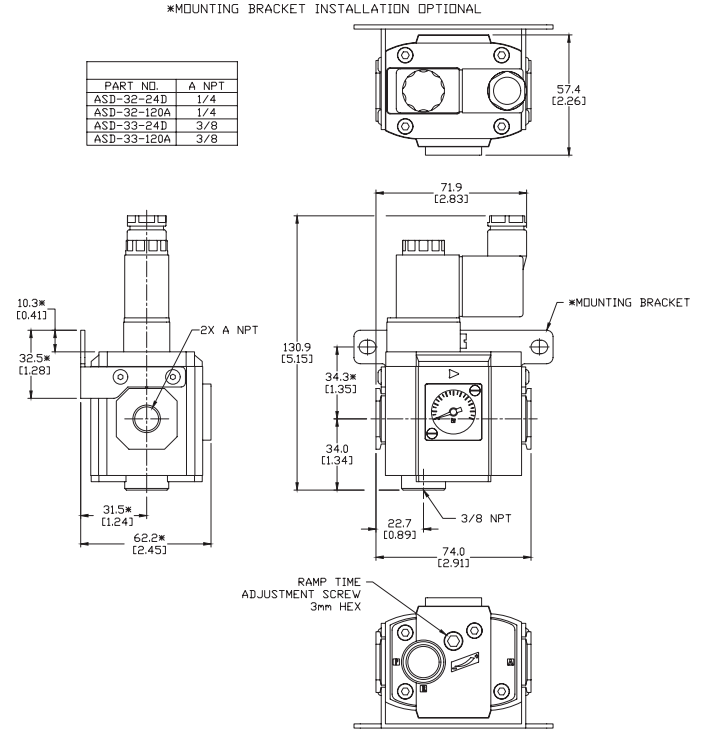
Dimensions

mm [inches]

ASD-2x



ASD-3x



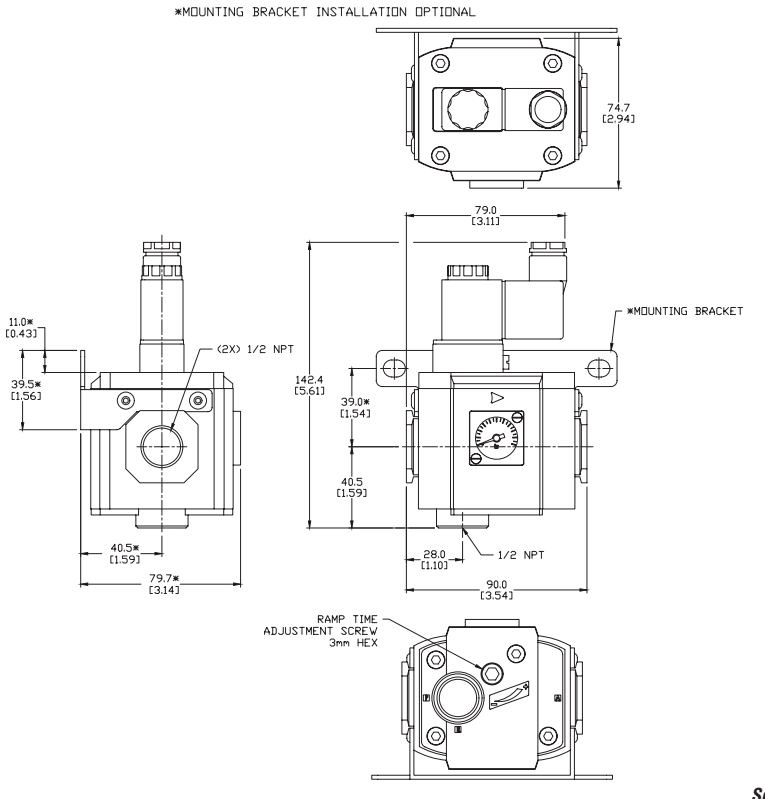
See our Web site www.AutomationDirect.com for complete Engineering drawings.

Pneumatic Air Preparation - ASD Series Soft-Start/Dump Valves

Dimensions

mm [inches]

ASD-4x



See our Web site www.AutomationDirect.com for complete Engineering drawings.

Pneumatic Air Preparation Accessories

Pneumatic Air Preparation Accessories			
Part No.	**Price**	**Description**	**Weight (lbs)**
AGP-21	$5.75	NITRA pneumatic gauge port adapter plate, 1/8 inch NPT female port, with mounting screws. Easy field assembly with NITRA pneumatic AR-2 series regulators and AFR-2 series filter / regulators.	0.03
AGP-32	$5.75	NITRA pneumatic gauge port adapter plate, 1/4 inch NPT female port, with mounting screws. Easy field assembly with NITRA pneumatic AR-3, AR-4 and AR-6 series regulators and AFR-3, AFR-4 and AFR-6 series filter / regulators.	0.04
ADB-21	$11.00	NITRA pneumatic distribution block with four (4) 1/8 inch NPT female ports. Modular design enables easy field assembly with NITRA pneumatic AF-21 series filters, AR-21 series regulators, AL-21 series lubricators and AFR-21 series filter / regulators.	0.1
ADB-22	$11.00	NITRA pneumatic distribution block with four (4) 1/4 inch NPT female ports. Modular design enables easy field assembly with NITRA pneumatic AF-22 series filters, AR-22 series regulators, AL-22 series lubricators and AFR-22 series filter / regulators.	0.1
ADB-32	$15.00	NITRA pneumatic distribution block with four (4) 1/4 inch NPT female ports. Modular design enables easy field assembly with NITRA pneumatic AF-32 series filters, AR-32 series regulators, AL-32 series lubricators and AFR-32 series filter / regulators.	0.2
ADB-33	$15.00	NITRA pneumatic distribution block with four (4) 3/8 inch NPT female ports. Modular design enables easy field assembly with NITRA pneumatic AF-33 series filters, AR-33 series regulators, AL-33 series lubricators and AFR-33 series filter / regulators.	0.2
ADB-44	$16.50	NITRA pneumatic distribution block with four (4) 1/2 inch NPT female ports. Modular design enables easy field assembly with NITRA pneumatic AF-44 series filters, AR-44 series regulators, AL-44 series lubricators and AFR-44 series filter / regulators.	0.4
AB-2T	$8.00	NITRA pneumatic modular assembly and mounting T-bracket with two mounting tangs, used to assemble and mount individual NITRA AF-2 series filters, AR-2 series regulators, AL-2 series lubricators and AFR-2 series filter/regulators as a combined unit	0.2
AB-2L	$8.00	NITRA pneumatic modular assembly and mounting L-bracket with one mounting tang, used to assemble and mount individual NITRA AF-2 series filters, AR-2 series regulators, AL-2 series lubricators and AFR-2 series filter/regulators as a combined unit	0.2
AB-2U	$8.00	NITRA pneumatic modular assembly U-bracket (no mounting tangs), used to assemble individual NITRA AF-2 series filters, AR-2 series regulators, AL-2 series lubricators and AFR-2 series filter/regulators as a combined unit	0.1
AB-3T	$9.00	NITRA pneumatic modular assembly and mounting T-bracket with two mounting tangs, used to assemble and mount individual NITRA AF-3 series filters, AR-3 series regulators, AL-3 series lubricators and AFR-3 series filter/regulators as a combined unit	0.3
AB-3L	$9.00	NITRA pneumatic modular assembly and mounting L-bracket with one mounting tang, used to assemble and mount individual NITRA AF-3 series filters, AR-3 series regulators, AL-3 series lubricators and AFR-3 series filter/regulators as a combined unit	0.3
AB-3U	$9.00	NITRA pneumatic modular assembly U-bracket (no mounting tangs), used to assemble individual NITRA AF-3 series filters, AR-3 series regulators, AL-3 series lubricators and AFR-3 series filter/regulators as a combined unit	0.2
AB-4T	$10.50	NITRA pneumatic modular assembly and mounting T-bracket with two mounting tangs, used to assemble and mount individual NITRA AF-4 series filters, AR-4 series regulators, AL-4 series lubricators and AFR-4 series filter/regulators as a combined unit	0.5
AB-4L	$10.50	NITRA pneumatic modular assembly and mounting L-bracket with one mounting tang, used to assemble and mount individual NITRA AF-4 series filters, AR-4 series regulators, AL-4 series lubricators and AFR-4 series filter/regulators as a combined unit	0.5
AB-4U	$10.50	NITRA pneumatic modular assembly U-bracket (no mounting tangs), used to assemble individual NITRA AF-4 series filters, AR-4 series regulators, AL-4 series lubricators and AFR-4 series filter/regulators as a combined unit	0.4
AB-6T	$15.50	NITRA pneumatic modular assembly and mounting T-bracket with two mounting tangs, used to assemble and mount individual NITRA AF-6 series filters, AR-6 series regulators, AL-6 series lubricators and AFR-6 series filter/regulators as a combined unit	1.3
AB-6L	$15.50	NITRA pneumatic modular assembly and mounting L-bracket with one mounting tang, used to assemble and mount individual NITRA AF-6 series filters, AR-6 series regulators, AL-6 series lubricators and AFR-6 series filter/regulators as a combined unit	1.2
AB-6U	$15.50	NITRA pneumatic modular assembly U-bracket (no mounting tangs), used to assemble individual NITRA AF-6 series filters, AR-6 series regulators, AL-6 series lubricators and AFR-6 series filter/regulators as a combined unit	0.8



Part No. AGP-21



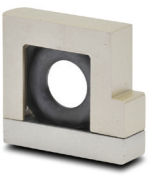
Part No. ADB-21



Part No. AB-4T



Part No. AB-4L



Part No. AB-4U

Pneumatic Air Preparation Accessories

Pneumatic Air Preparation Accessories			
Part No.	***Price***	***Description***	***Weight (lbs)***
AFE-23	$1.00	NITRA replacement filter element, tin-copper, 40 micron, for AF-2 series filters or AFR-2 series filter/regulators	0.02
AFE-33	$2.00	NITRA replacement filter element, tin-copper, 40 micron, for AF-3 series filters or AFR-3 series filter/regulators	0.05
AFE-43	$3.50	NITRA replacement filter element, tin-copper, 40 micron, for AF-4 series filters or AFR-4 series filter/regulators	0.1
AFE-63	$13.00	NITRA replacement filter element, tin-copper, 40 micron, for AF-6 series filters or AFR-6 series filter/regulators	0.4
AFE-21	$1.00	NITRA replacement filter element, fiber, 5 micron, for AF-2 series filters or AFR-2 series filter/regulators	0.1
AFE-31	$1.25	NITRA replacement filter element, fiber, 5 micron, for AF-3 series filters or AFR-3 series filter/regulators	0.1
AFE-41	$1.50	NITRA replacement filter element, fiber, 5 micron, for AF-4 series filters or AFR-4 series filter/regulators	0.1
AFE-61	$13.00	NITRA replacement filter element, tin-copper, 5 micron, for AF-6 series filters or AFR-6 series filter/regulators	0.4



Part No. AFE-43



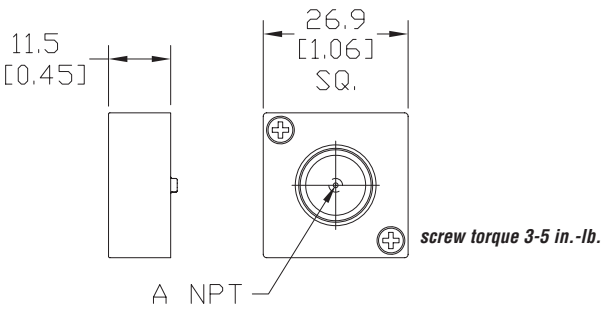
Part No. AFE-41

Dimensions

mm [inches]

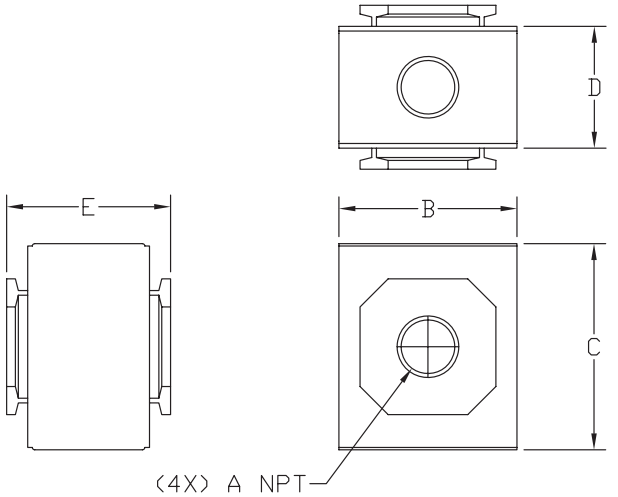
AGP-x

PART NO.	A NPT
APG-21	1/8
APG-32	1/4



ADB-x

PART NO.	A NPT	DIM B	DIM C	DIM D	DIM E
ADB-21	1/8	30.0 [1.18]	36.0 [1.42]	19.5 [0.77]	28.5 [1.12]
ADB-22	1/4	30.0 [1.18]	36.0 [1.42]	19.5 [0.77]	28.5 [1.12]
ADB-32	1/4	38.0 [1.50]	44.0 [1.73]	26.0 [1.02]	35.0 [1.38]
ADB-33	3/8	38.0 [1.50]	44.0 [1.73]	26.0 [1.02]	35.0 [1.38]
ADB-44	1/2	52.0 [2.05]	52.0 [2.05]	30.0 [1.18]	42.0 [1.65]



See our Web site www.AutomationDirect.com for complete Engineering drawings.

Pneumatic Air Preparation Accessories

Dimensions

mm [inches]

AB-xT

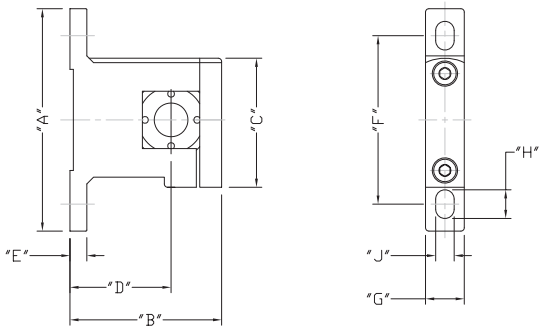


TABLE 1									
PART NUMBER	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"	DIM "G"	DIM "H"	DIM "J"
AB-2T	66.0 [2.60]	45.0 [1.77]	38.3 [1.51]	30.0 [1.18]	5.0 [0.20]	50.0 [1.97]	11.5 [0.45]	8.5 [0.33]	5.5 [0.22]
AB-3T	88.0 [3.46]	60.5 [2.38]	49.3 [1.94]	41.5 [1.63]	7.0 [0.28]	70.0 [2.76]	12.5 [0.49]	9.0 [0.35]	6.5 [0.26]
AB-4T	104.0 [4.09]	76.0 [2.99]	58.5 [2.30]	50.0 [1.97]	7.0 [0.28]	80.0 [3.15]	15.5 [0.61]	12.0 [0.47]	8.6 [0.34]
AB-6T	128.0 [5.04]	104.0 [4.09]	79.5 [3.13]	70.0 [2.76]	10.0 [0.39]	100.0 [3.94]	19.5 [0.77]	16.0 [0.63]	11.0 [0.43]

AB-xL

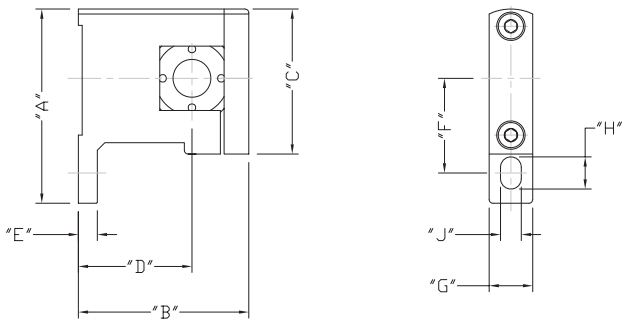


TABLE 1									
PART NUMBER	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"	DIM "G"	DIM "H"	DIM "J"
AB-2L	51.3 [2.02]	45.0 [1.77]	38.3 [1.51]	30.0 [1.18]	5.0 [0.20]	25.0 [0.98]	11.5 [0.45]	8.5 [0.33]	5.5 [0.22]
AB-3L	68.6 [2.70]	60.5 [2.38]	49.3 [1.94]	41.5 [1.63]	7.0 [0.28]	35.0 [1.38]	12.5 [0.49]	9.0 [0.35]	6.5 [0.26]
AB-4L	79.5 [3.13]	76.0 [2.99]	58.5 [2.30]	50.0 [1.97]	7.0 [0.28]	40.0 [1.57]	15.5 [0.61]	12.0 [0.47]	8.6 [0.34]
AB-6L	103.5 [4.07]	104.0 [4.09]	79.5 [3.13]	70.0 [2.76]	10.0 [0.39]	50.0 [1.97]	19.5 [0.77]	16.0 [0.63]	11.0 [0.43]

AB-xU

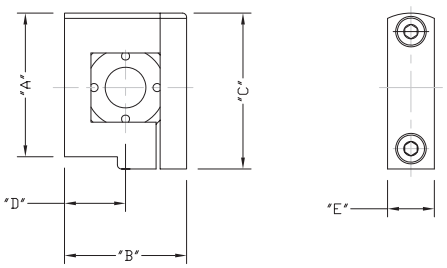


TABLE 1					
PART NUMBER	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"
AB-2U	35.5 [1.39]	30.0 [1.18]	38.3 [1.51]	15.0 [0.59]	11.5 [0.45]
AB-3U	43.8 [1.72]	38.0 [1.50]	49.3 [1.94]	19.5 [0.75]	12.5 [0.49]
AB-4U	52.5 [2.07]	52.0 [2.05]	58.5 [2.30]	26.0 [1.02]	15.5 [0.61]
AB-6U	76.5 [3.01]	68.0 [2.68]	79.5 [3.13]	34.0 [1.34]	19.5 [0.77]

See our Web site www.AutomationDirect.com for complete Engineering drawings.

Pneumatic Directional Control Solenoid Valves – AVP Series



NITRA™ pneumatic AVP series directional control solenoid valves are 3-way stackable poppet style valves with 1/8" NPT ports. They provide 2-position, normally closed, spring return operation with either 24 VDC or 120 VAC solenoid coils. The AVP series can be used in individual valve applications or multiple valves can be field assembled (stacked) to share supply air, simplifying piping connections. The DIN style wiring connector includes LED indication of the solenoid coil status.

Features

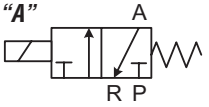
- 3-way stackable poppet style valves
- 1/8" NPT ports
- 2-position, normally closed, spring return
- 24VDC or 120VAC solenoid coils
- DIN style wiring connector with LED indication
- Single valve or multiple stacked valve applications
- Operating life up to 50,000,000 cycles
- 2 year warranty



See www.AutomationDirect.com for a wide variety of fitting options



Diagram "A"



2-Pos, Spring Return

AVP Series Specifications		
Model	***AVP-31C1-24D***	***AVP-31C1-120A***
Price	$18.50	$18.50
Weight (lbs)	0.3	
Valve Type	3-way 2 position	
Acting	Direct acting, normally closed, spring return	
Diagram	A	A
Port Size	1/8"	
Orifice Size	1.2 mm, Cv=0.051	
Fluid	Air (to be filtered by 40µ filter element)	
Operating Pressure	20~130Psi, (0.15~0.9MPa), (1.5~9.0 bar)	
Voltage	20.4 - 26.4 VDC	102 - 132 VAC (50/60 Hz)
Power Consumption	DC: 3.0W | AC: 3.5 VA; continuous duty (100% ED)	
Maximum Frequency	10 cycles/sec	
Insulation	B class	
Min Response	0.05 sec	
Temperature	-5~60°C (23~140°F)	
Lubrication	Not Required	
Protection	IP65 (DIN40050)	
Connection	11 mm DIN Terminal with Grommet	
Material of Body	Aluminum Alloy	
Agency Approvals	Solenoid CE marked; RoHS	

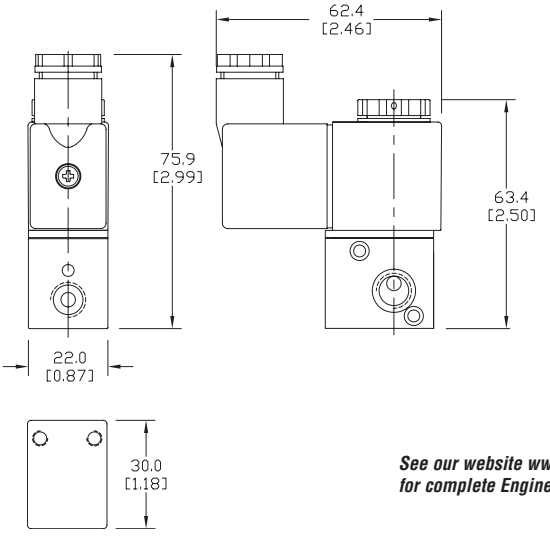


Stacked example using AVP-31KIT stacking screw kit and shown with mounting bracket AVP-31BKT

Dimensions

mm [inches]

AVP-31C1





AVP-31KIT

Note: One kit is required for each additional AVP-31 valve added to the stack.



AVP-31BKT

See our website www.AutomationDirect.com for complete Engineering drawings.

Dimensions in mm [inches]

Pneumatic Directional Control Solenoid Valves – AVS-3 Series



AVS-3221

AVS-3211

NITRA™ pneumatic AVS-3 series directional control solenoid valves are body ported 3-port (3-way) spool valves. Available port sizes are 1/8", 1/4" or 3/8" NPT with flow coefficients (Cv) from 0.67 to 1.67. The single solenoid models provide 2-position, normally closed, spring return operation and the double solenoid models provide 2-position, energize open/energize closed operation. Solenoid coils are available in either 24VDC or 120VAC control voltages. The DIN style wiring connector includes LED indication of the solenoid coil status.

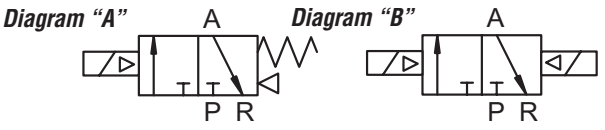
Features

- Body ported, 3-port (3-way) spool valves
- 1/8", 1/4" or 3/8" NPT ports
- 2-position, single solenoid normally closed spring return; 2-position, double solenoid energize open/ energize closed
- 24VDC or 120VAC solenoid coils
- DIN style wiring connector with LED indication
- Locking manual operator
- Operating life up to 50,000,000 cycles
- 2 year warranty



See www.AutomationDirect.com for a wide variety of fitting options





2-Pos, Spring Return *2-Pos, Double Solenoid*

AVS-3 Series Specifications										
Model	AVS-3111-24D	AVS-3111-120A	AVS-3211-24D	AVS-3211-120A	AVS-3221-24D	AVS-3221-120A	AVS-3212-24D	AVS-3212-120A	AVS-3222-24D	AVS-3222-120A
Price	$18.00	$18.00	$21.50	$21.50	$32.50	$32.50	$21.50	$21.50	$32.50	$32.50
Weight (lb)	0.3	0.3	0.5	0.5	0.8	0.7	0.5	0.5	0.7	0.7
Valve Type	3 port 2 position									
Acting	Internally Piloted									
Diagram	A		A		B		A		B	
Port Size	In/Out=1/8"		In/Out=1/8"				In/Out=1/4"			
Orifice Size	12mm² (Cv=0.67)		14mm² (Cv=0.78)				16mm² (Cv=0.89)			
Fluid	Air (to be filtered by 40µ filter element)									
Pressure	Working: 20~115 psi, (0.15~0.8 MPa), (1.5~8.0 bar); Proof: 215 psi, (1.48 MPa), (14.8 bar)									
Voltage	24VDC single solenoid	120VAC single solenoid	24VDC single solenoid	120VAC single solenoid	24VDC double solenoid	120VAC double solenoid	24VDC single solenoid	120VAC single solenoid	24VDC double solenoid	120VAC double solenoid
Power Consumption	DC: 2.5W | AC: 2.5 VA; continuous duty (100% ED)		DC: 3.0W | AC: 3.5 VA; continuous duty (100% ED)							
Max Freq	5 cycles/sec									
Insulation	B class									
Min Response	0.05 sec									
Temperature	-5~60°C (23~140°F)									
Lubrication	Not Required									
Protection	IP65 (DIN40050)									
Connection	9.4 mm DIN Terminal		11mm DIN Terminal							
Body	Aluminum Alloy									
Agency Approvals	Solenoid CE marked; RoHS									

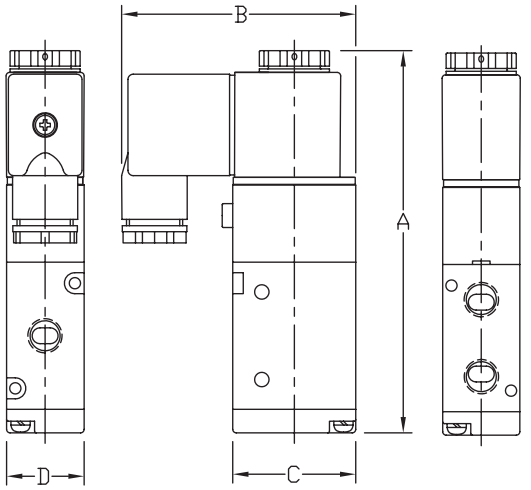
Pneumatic Directional Control Solenoid Valves – AVS-3 Series

AVS-3 Series Specifications								
Model	AVS-3312-24D	AVS-3312-120A	AVS-3322-24D	AVS-3322-120A	AVS-3313-24D	AVS-3313-120A	AVS-3323-24D	AVS-3323-120A
Price	$29.50	$29.50	$39.50	$38.00	$29.50	$29.50	$40.50	$40.50
Weight (lb)	0.7	0.7	0.9	0.9	0.7	0.7	0.9	0.9
Valve Type	3 port 2 position							
Acting	Internally Piloted							
Diagram	A		B		A		B	
Port Size	In/Out=1/4"				In/Out=3/8"			
Orifice Size	25mm² (Cv=1.39)				16mm² (Cv=1.67)			
Fluid	Air (to be filtered by 40µ filter element)							
Pressure	Working: 20~115 psi, (0.15~0.8 MPa), (1.5~8.0 bar); Proof: 215 psi, (1.48 MPa), (14.8 bar)							
Voltage	24VDC single solenoid	120VAC single solenoid	24VDC double solenoid	120VAC double solenoid	24VDC single solenoid	120VAC single solenoid	24VDC double solenoid	120VAC double solenoid
Power Consumption	DC: 3.0W | AC: 3.5 VA; continuous duty (100% ED)							
Max Freq	5 cycles/sec							
Insulation	B class							
Min Response	0.05 sec							
Temperature	-5~60°C (23~140°F)							
Lubrication	Not Required							
Protection	IP65 (DIN40050)							
Connection	11mm DIN Terminal							
Body	Aluminum Alloy							
Agency Approvals	Solenoid CE marked; RoHS							

Dimensions

mm [inches]

AVS-311x,
AVS-321x,
AVS-331x



DIMENSION TABLE				
PART NO.	A	B	C	D
AVS-311X-XXX	88.4 [3.48]	54.6 [2.15]	27.0 [1.06]	18.0 [0.71]
AVS-321X-XXX	109.0 [4.29]	66.7 [2.63]	35.0 [1.38]	22.0 [0.87]
AVS-331X-XXX	119.8 [4.72]	69.1 [2.72]	40.0 [1.57]	27.0 [1.06]

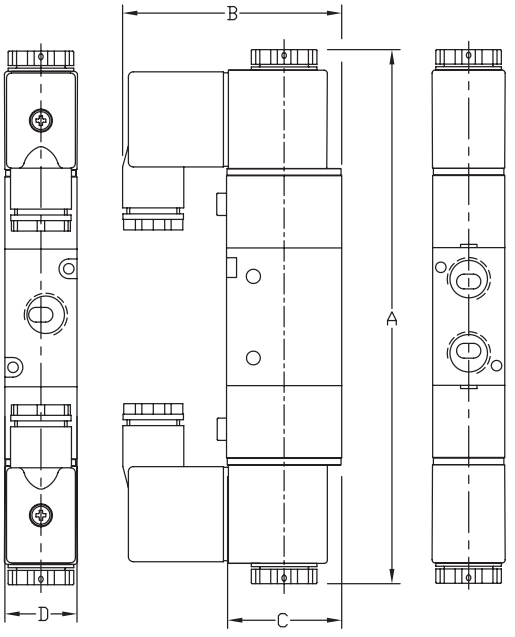
See our website www.AutomationDirect.com for complete Engineering drawings.

Pneumatic Directional Control Solenoid Valves – AVS-3 Series

Dimensions

mm [inches]

AVS-322x,
AVS-332x



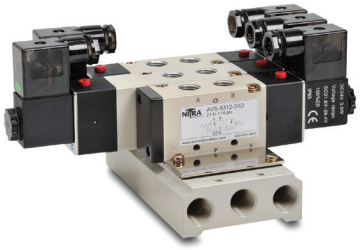
DIMENSION TABLE				
PART NO.	A	B	C	D
AVS-322X-XXX	162.8 [6.41]	66.8 [2.63]	34.8 [1.37]	22.0 [0.87]
AVS-332X-XXX	174.8 [6.88]	69.2 [2.72]	40.0 [1.57]	27.0 [1.06]

See our website www.AutomationDirect.com for complete Engineering drawings.

Pneumatic Directional Control Solenoid Valves – AVS-5 Series

AVS-5211





AVS-5221 *Stacked solenoids shown mounted on optional manifold*

NITRA™ pneumatic AVS-5 series directional control solenoid valves are body ported 5-port (4-way) spool valves. Available port sizes are 1/8", 1/4", 3/8" or 1/2" NPT with flow coefficients (Cv) from 0.50 to 2.79. Models are available with single solenoid, spring return or double solenoid 2-position operation. In addition, double solenoid models are available with 3-position, center closed or center exhaust operation. Solenoid coils are available in either 24VDC or 120VAC control voltages. The AVS-5 series can be used in individual valve applications or multiple valves can be field assembled on AM-5 series manifolds simplifying piping connections. AM-5 series manifolds are available in 2, 4, 6 or 8 stations. The DIN style wiring connector includes LED indication of the solenoid coil status.

Features

- Body ported, 5-port (4-way) spool valves
- 1/8", 1/4", 3/8" or 1/2" NPT ports
- 2-position, single solenoid normally closed, spring return; 2-position, double solenoid, energize open/energize closed; 3-position, double solenoid center closed or center exhaust
- 24VDC or 120VAC solenoid coils
- DIN style wiring connector with LED indication
- Single valve or multiple manifold mounted valve applications
- Locking manual operator
- Operating life up to 50,000,000 cycles
- 2 year warranty



See www.AutomationDirect.com for a wide variety of fitting and cable options



AVS-5 Series Specifications

Model	AVS-5111-24D	AVS-5111-120A	AVS-5121-24D	AVS-5121-120A	AVS-513C1-24D	AVS-513C1-120A	AVS-513E1-24D	AVS-513E1-120A	AVS-5211-24D	AVS-5211-120A	AVS-5221-24D	AVS-5221-120A	AVS-5212-24D	AVS-5212-120A	AVS-5222-24D	AVS-5222-120A
Price	$18.00	$18.00	$29.00	$29.00	$42.00	$42.00	$42.00	$42.00	$21.50	$21.50	$32.50	$32.50	$21.50	$21.50	$32.50	$32.50
Weight (lb)	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.8	0.8	0.5	0.5	0.8	0.8
Valve Type	5 port 2 position				5 port 3 position				5 port 2 position							
Acting	Internally Piloted															
Diagram	A		B		C		D		A		B		A		B	
Port Size	In/Out/Exhaust=1/8"				In/Out/Exhaust=1/8"				In/Out/Exhaust=1/8"				In/Out=1/4", Exhaust=1/8"			
Orifice Size	12mm² (Cv=0.67)				9mm² (Cv=0.50)				14mm² (Cv=0.78)				16mm² (Cv=0.89)			
Fluid	Air (to be filtered by 40µ filter element)															
Pressure	Working: 20~115 psi, (0.15~0.8 MPa), (1.5~8.0 bar); Proof: 215 psi, (1.48 MPa), (14.8 bar)															
Voltage (VAC @ 50/60 Hz)	24VDC single solenoid	120VAC single solenoid	24VDC double solenoid	120VAC double solenoid	24VDC center closed double solenoid	120VAC center closed double solenoid	24VDC center exhaust double solenoid	120VAC center exhaust double solenoid	24VDC single solenoid	120VAC single solenoid	24VDC double solenoid	120VAC double solenoid	24VDC single solenoid	120VAC single solenoid	24VDC double solenoid	120VAC double solenoid
Power Consumption	DC: 2.5W | AC: 2.5 VA; continuous duty (100% ED)								DC: 3.0W | AC: 3.5 VA; continuous duty (100% ED)							
Max Freq	5 cycles/sec				3 cycles/sec				5 cycles/sec							
Insulation	B class															
Min Response	0.05 sec															
Temperature	-5~60°C (23~140°F)															
Lubrication	Not Required															
Protection	IP65 (DIN40050)															
Connection	9.4 mm DIN Terminal								11mm DIN Terminal							
Body	Aluminum Alloy															
Agency Approvals	Solenoid CE marked; RoHS															

Pneumatic AVS Directional Control Solenoid Valves – AVS-5 Series



Diagram "A"



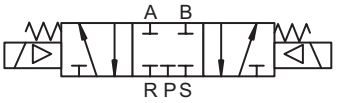
2-Pos, Spring Return

Diagram "B"



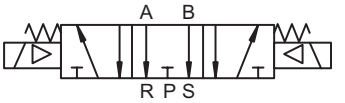
2-Pos, Double Solenoid

Diagram "C"



3-Pos, Closed Center

Diagram "D"



3-Pos, Exhaust Center

AVS-5 Series Specifications

Model	***AVS-5312-24D***	***AVS-5312-120A***	***AVS-5322-24D***	***AVS-5322-120A***	***AVS-5313-24D***	***AVS-5313-120A***	***AVS-5323-24D***	***AVS-5323-120A***	***AVS-523C1-24D***	***AVS-523C1-120A***	***AVS-523E1-24D***	***AVS-523E1-120A***	***AVS-523C2-24D***	***AVS-523C2-120A***	***AVS-523E2-24D***	***AVS-523E2-120A***
Price	$29.50	$29.50	$41.50	$41.50	$29.50	$29.50	$41.50	$41.50	$56.00	$56.00	$56.00	$56.00	$56.00	$56.00	$56.00	$44.50
Weight (lb)	0.8	0.8	1.0	1.0	0.7	0.7	1.0	1.0	0.9	0.8	0.9	0.9	0.9	0.8	0.9	0.8
Valve Type	5 port 2 position								5 port 3 position							
Acting	Internally Piloted															
Diagram	A		B		A		B		C		D		C		D	
Port Size	In/Out/Exhaust=1/4"				In/Out=3/8", Exhaust=1/4"				In/Out/Exhaust=1/8"				In/Out=1/4", Exhaust=1/8"			
Orifice Size	25mm² (Cv=1.4)				30mm² (Cv=1.68)				12mm² (Cv=0.67)							
Fluid	Air (to be filtered by 40µ filter element)															
Pressure	Working: 20~115 psi, (0.15~0.8 MPa), (1.5~8.0 bar); Proof: 215 psi, (1.48 MPa), (14.8 bar)															
Voltage (VAC @ 50/60 Hz)	24VDC single solenoid	120VAC single solenoid	24VDC double solenoid	120VAC double solenoid	24VDC single solenoid	120VAC single solenoid	24VDC double solenoid	120VAC double solenoid	24VDC center closed double solenoid	120VAC center closed double solenoid	24VDC center exhaust double solenoid	120VAC center exhaust double solenoid	24VDC center closed double solenoid	120VAC center closed double solenoid	24VDC center exhaust double solenoid	120VAC center exhaust double solenoid
Power Consumption	DC: 3.0W | AC: 3.5 VA; continuous duty (100% ED)															
Max Freq	4 cycles/sec								3 cycles/sec							
Insulation	B class															
Min Response	0.05 sec															
Temperature	-5~60°C (23~140°F)															
Lubrication	Not Required															
Protection	IP65 (DIN40050)															
Connection	11mm DIN Terminal															
Body	Aluminum Alloy															
Agency Approvals	Solenoid CE marked; RoHS															

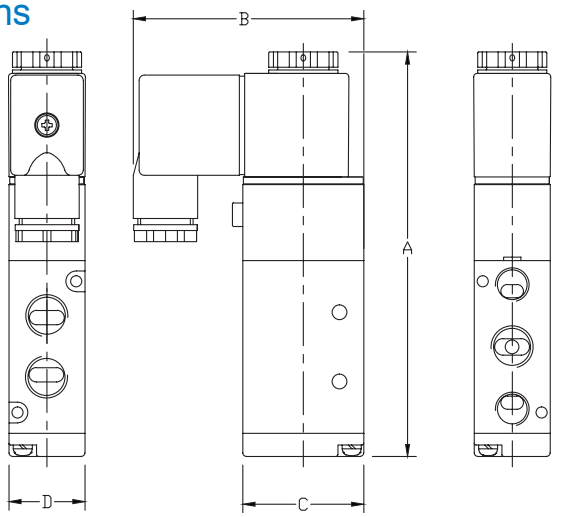
Pneumatic AVS Directional Control Solenoid Valves – AVS-5 Series

AVS-5 Series Specifications																
Model	AVS-533C2-24D	AVS-533C2-120A	AVS-533E2-24D	AVS-533E2-120A	AVS-533C3-24D	AVS-533C3-120A	AVS-533E3-24D	AVS-533E3-120A	AVS-5414-24D	AVS-5414-120A	AVS-5424-24D	AVS-5424-120A	AVS-543C4-24D	AVS-543C4-120A	AVS-543E4-24D	AVS-543E4-120A
Price	$77.00	$77.00	$77.00	$77.00	$77.00	$77.00	$77.00	$77.00	$44.00	$44.00	$56.00	$56.00	$77.00	$77.00	$77.00	$77.00
Weight (lb)	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.3	1.3	1.5	1.5	1.7	1.7	1.7	1.7
Valve Type	5 port 3 position								5 port 2 position				5 port 3 position			
Acting	Internally Piloted															
Diagram	C		D		C		D		A		B		C		D	
Port Size	In/Out/Exhaust=1/4"				In/Out=3/8", Exhaust=1/4"				In/Out/Exhaust=1/2"							
Orifice Size	18mm² (Cv=1.0)								50mm² (Cv=2.79)				30mm² (Cv=1.68)			
Fluid	Air (to be filtered by 40µ filter element)															
Pressure	Working: 20~115 psi, (0.15~0.8 MPa), (1.5~8.0 bar); Proof: 215 psi, (1.48 MPa), (14.8 bar)															
Voltage (VAC @ 50/60 Hz)	24VDC center closed double solenoid	120VAC center closed double solenoid	24VDC center exhaust double solenoid	120VAC center exhaust double solenoid	24VDC center closed double solenoid	120VAC center closed double solenoid	24VDC center exhaust double solenoid	120VAC center exhaust double solenoid	24VDC single solenoid	120VAC single solenoid	24VDC double solenoid	120VAC double solenoid	24VDC center closed double solenoid	120VAC center closed double solenoid	24VDC center exhaust double solenoid	120VAC center exhaust double solenoid
Power Consumption	DC: 3.0W | AC: 3.5 VA; continuous duty (100% ED)															
Max Freq	3 cycles/sec															
Insulation	B class															
Min Response	0.05 sec															
Temperature	-5~60°C (23~140°F)															
Lubrication	Not Required															
Protection	IP65 (DIN40050)															
Connection	11mm DIN Terminal															
Body	Aluminum Alloy															
Agency Approvals	Solenoid CE marked; RoHS															

Dimensions

mm [inches]

AVS-5111, AVS-5211, AVS-5212, AVS-5312, AVS-5313, AVS-5414



DIMENSION TABLE				
PART NO.	A	B	C	D
AVS-5111-XXX	99.4 [3.91]	55.0 [2.17]	27.0 [1.06]	18.0 [0.71]
AVS-5211-XXX	117.1 [4.61]	66.7 [2.63]	35.0 [1.38]	22.0 [0.87]
AVS-5212-XXX	117.1 [4.61]	66.7 [2.63]	35.0 [1.38]	22.0 [0.87]
AVS-5312-XXX	134.9 [5.31]	69.2 [2.72]	40.0 [1.57]	27.0 [1.06]
AVS-5313-XXX	134.9 [5.31]	69.2 [2.72]	40.0 [1.57]	27.0 [1.06]
AVS-5414-XXX	168.4 [6.63]	74.0 [2.91]	50.0 [1.97]	34.0 [1.34]

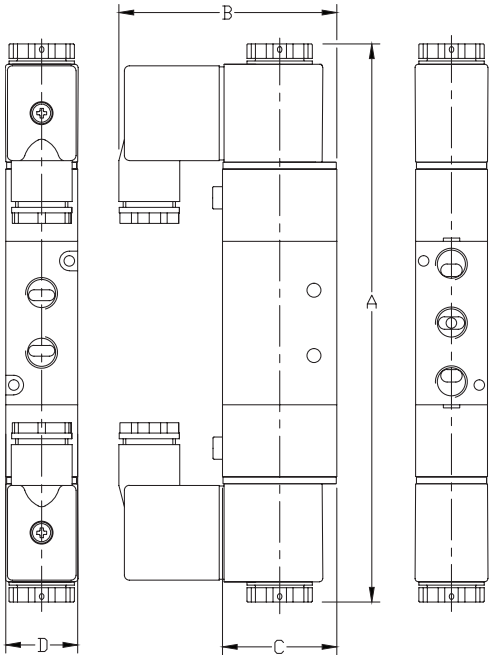
See our website www.AutomationDirect.com for complete Engineering drawings.

Pneumatic Directional Control Solenoid Valves – AVS-5 Series

Dimensions

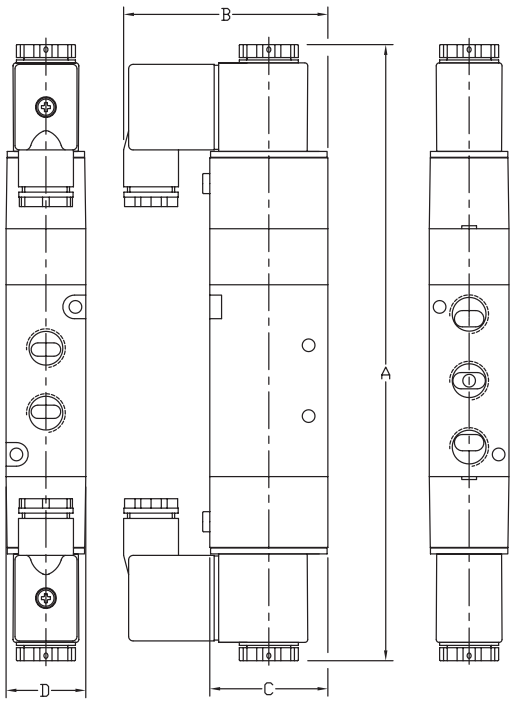
mm [inches]

AVS-5121,
AVS-5221,
AVS-5222,
AVS-5322,
AVS-5323,
AVS-5424



DIMENSION TABLE				
PART NO.	A	B	C	D
AVS-5121-XXX	142.4 [5.61]	54.8 [2.16]	27.0 [1.06]	18.0 [0.71]
AVS-5221-XXX	170.8 [6.72]	66.7 [2.63]	35.0 [1.38]	22.0 [0.87]
AVS-5222-XXX	170.8 [6.72]	66.7 [2.63]	35.0 [1.38]	22.0 [0.87]
AVS-5322-XXX	189.8 [7.47]	69.2 [2.72]	40.0 [1.57]	27.0 [1.06]
AVS-5323-XXX	189.8 [7.47]	69.2 [2.72]	40.0 [1.57]	27.0 [1.06]
AVS-5424-XXX	222.8 [8.77]	74.0 [2.91]	50.0 [1.97]	34.0 [1.34]

AVS-513xx,
AVS-523xx,
AVS-533xx,
AVS-543xx



DIMENSION TABLE				
PART NO.	A	B	C	D
AVS-513XX-XXX	157.4 [6.20]	54.8 [2.16]	26.6 [1.05]	18.0 [0.71]
AVS-523XX-XXX	189.8 [7.47]	66.7 [2.63]	35.0 [1.38]	22.0 [0.87]
AVS-533XX-XXX	208.8 [8.22]	69.2 [2.72]	40.0 [1.57]	27.0 [1.06]
AVS-543XX-XXX	243.8 [9.60]	74.0 [2.91]	50.0 [1.97]	34.0 [1.34]

See our website www.AutomationDirect.com for complete Engineering drawings.

Pneumatic A-Series Direction Control Solenoid Valves - Accessories



AVC1-12D



AVC2-12D

Pneumatic A-Series Directional Control Solenoid Valve Series Accessories			
Part No.	*Price*	*Description*	*Weight (lb)*
AVC1-12D	$7.00	NITRA solenoid coil, 12VDC, 2.5 W. For use with AVS-31 and AVS-51 series valves.	0.1
AVC1-24D	$7.00	NITRA solenoid coil, 24VDC, 2.5 W. For use with AVS-31 and AVS-51 series valves.	0.1
AVC1-24A	$7.00	NITRA solenoid coil, 24VAC, 2.5 VA. For use with AVS-31 and AVS-51 series valves.	0.1
AVC1-120A	$7.00	NITRA solenoid coil, 120VAC, 2.5 VA. For use with AVS-31 and AVS-51 series valves.	0.1
AVC2-12D	$7.00	NITRA solenoid coil, 12VDC, 3.0 W. For use with AVP-31, AVS-32, AVS-33, AVS-52, AVS-53 and AVS-54 series valves.	0.2
AVC2-24D	$7.00	NITRA solenoid coil, 24VDC, 3.0 W. For use with AVP-31, AVS-32, AVS-33, AVS-52, AVS-53 and AVS-54 series valves.	0.2
AVC2-24A	$7.00	NITRA solenoid coil, 24VAC, 3.5 VA. For use with AVP-31, AVS-32, AVS-33, AVS-52, AVS-53 and AVS-54 series valves.	0.2
AVC2-120A	$7.00	NITRA solenoid coil, 120VAC, 3.5 VA. For use with AVP-31, AVS-32, AVS-33, AVS-52, AVS-53 and AVS-54 series valves.	0.2
AVP-31BKT	$1.00	NITRA individual mounting bracket, plated steel. For use with AVP-31 directional control valves.	0.1
AVP-31KIT	$1.75	NITRA stacking screws, for use with AVP-31 directional control valves. One kit is required for each additional AVP-31 valve added to the stack.	0.1



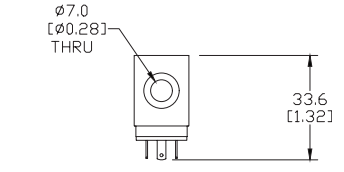
AVP-31BKT

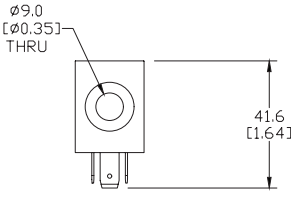


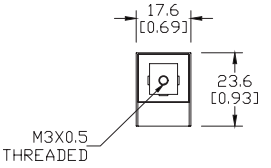
AVP-31KIT

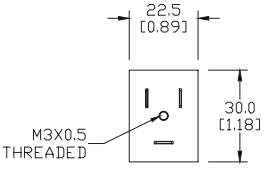
Dimensions

mm [inches]

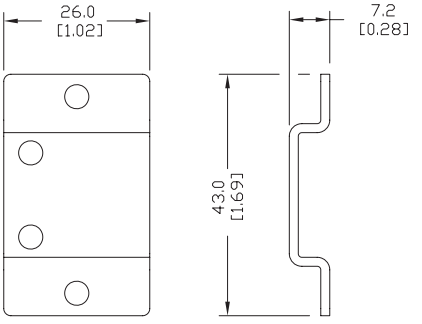








AVC1 Series Coils **AVC2 Series Coils**



AVP-31BKT

See our website www.AutomationDirect.com for complete Engineering drawings.

Pneumatic Directional Control Solenoid Valve Manifolds and Accessories



AM-3 Series Manifolds



AM-31BP

Pneumatic Directional Control Solenoid Valve Series Accessories			
Part No.	***Price***	***Description***	***Weight (lb)***
AM-312	$12.75	NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-31 series.	0.2
AM-314	$18.50	NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-31 series.	0.3
AM-316	$23.00	NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-31 series.	0.4
AM-318	$30.00	NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-31 series.	0.5
AM-31BP	$3.00	NITRA blanking plate, plated steel. For use with AM-31 series manifolds.	0.1
AM-322	$12.75	NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-32 series.	0.2
AM-324	$21.00	NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-32 series.	0.4
AM-326	$30.00	NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-32 series.	0.5
AM-328	$39.00	NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-32 series.	0.7
AM-32BP	$3.00	NITRA blanking plate, plated steel. For use with AM-32 series manifolds.	0.1
AM-332	$13.50	NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 3/8in FNPT inlet port(s), (2) 3/8in FNPT exhaust port(s). For use with AVS-33 series.	0.4
AM-334	$25.00	NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 3/8in FNPT inlet port(s), (2) 3/8in FNPT exhaust port(s). For use with AVS-33 series.	0.6
AM-336	$43.00	NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 3/8in FNPT inlet port(s), (2) 3/8in FNPT exhaust port(s). For use with AVS-33 series.	0.9
AM-338	$46.00	NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 3/8in FNPT inlet port(s), (2) 3/8in FNPT exhaust port(s). For use with AVS-33 series.	1.1
AM-33BP	$3.00	NITRA blanking plate, plated steel. For use with AM-33 series manifolds.	0.1
AM-512	$7.25	NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-51 series.	0.4
AM-514	$12.75	NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-51 series.	0.6
AM-516	$18.25	NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-51 series.	0.8
AM-518	$25.50	NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-51 series.	1.1
AM-51BP	$4.00	NITRA blanking plate, plated steel. For use with AM-51 series manifolds.	0.1
AM-522	$10.00	NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-52 series.	0.5
AM-524	$20.00	NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-52 series.	0.9
AM-526	$30.50	NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-52 series.	1.2
AM-528	$40.50	NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-52 series.	1.5
AM-52BP	$4.25	NITRA blanking plate, plated steel. For use with AM-52 series manifolds.	0.1

Pneumatic Directional Control Solenoid Valve Manifolds and Accessories



AM-5 Series Manifolds



AM-31GS

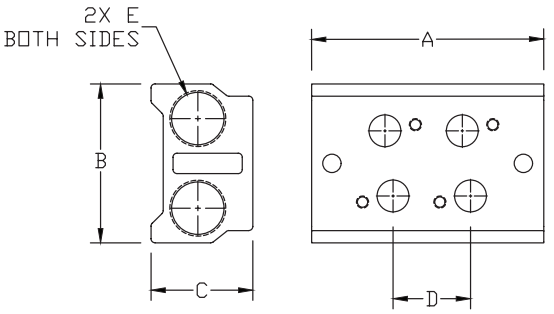
Pneumatic Directional Control Solenoid Valve Series Accessories Continued			
Part No.	***Price***	***Description***	***Weight (lb)***
AM-532	$15.50	NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 3/8in FNPT inlet port(s), (4) 3/8in FNPT exhaust port(s). For use with AVS-53 series.	0.8
AM-534	$30.00	NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 3/8in FNPT inlet port(s), (4) 3/8in FNPT exhaust port(s). For use with AVS-53 series.	1.4
AM-536	$46.00	NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 3/8in FNPT inlet port(s), (4) 3/8in FNPT exhaust port(s). For use with AVS-53 series.	1.9
AM-538	$60.00	NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 3/8in FNPT inlet port(s), (4) 3/8in FNPT exhaust port(s). For use with AVS-53 series.	2.5
AM-53BP	$4.25	NITRA blanking plate, plated steel. For use with AM-53 series manifolds.	0.1
AM-542	$16.50	NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 1/2in FNPT inlet port(s), (4) 1/2in FNPT exhaust port(s). For use with AVS-54 series.	1.7
AM-544	$33.50	NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 1/2in FNPT inlet port(s), (4) 1/2in FNPT exhaust port(s). For use with AVS-54 series.	2.8
AM-546	$52.00	NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/2in FNPT inlet port(s), (4) 1/2in FNPT exhaust port(s). For use with AVS-54 series.	4.0
AM-548	$62.00	NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 1/2in FNPT inlet port(s), (4) 1/2in FNPT exhaust port(s). For use with AVS-54 series.	5.2
AM-54BP	$4.00	NITRA blanking plate, plated steel. For use with AM-54 series manifolds.	0.1
AM-31GS	$3.00	NITRA manifold mounting set, for use with AM-31 series manifolds.	0.1
AM-32GS	$3.50	NITRA manifold mounting set, for use with AM-32 series manifolds.	0.1
AM-33GS	$3.50	NITRA manifold mounting set, for use with AM-33 series manifolds.	0.1
AM-51GS	$3.00	NITRA manifold mounting set, for use with AM-51 series manifolds.	0.1
AM-52GS	$3.50	NITRA manifold mounting set, for use with AM-52 series manifolds.	0.1
AM-53GS	$3.50	NITRA manifold mounting set, for use with AM-53 series manifolds.	0.1
AM-54GS	$4.00	NITRA manifold mounting set, for use with AM-54 series manifolds.	0.1

Pneumatic Directional Control Solenoid Valve Manifolds and Accessories

Dimensions

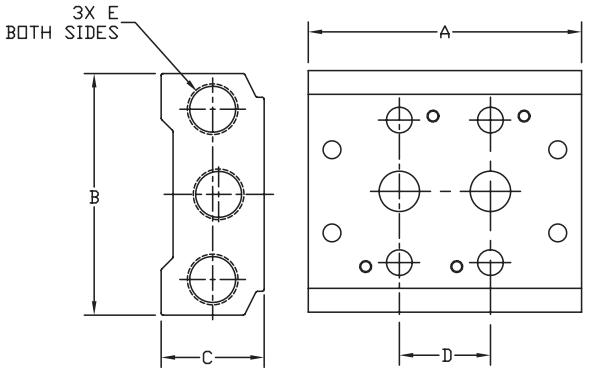
mm [inches]

AM 3x Series Manifolds



MANIFOLD DIMENSIONS					
PART NO.	A	B	C	D	E
AM-312	57.0 [2.24]	39.0 [1.54]	25.0 [0.98]	19.0 [.075]	1/4 NPT
AM-314	95.0 [3.74]			3X 19.0 [.075]	
AM-316	133.0 [5.24]			5X 19.0 [.075]	
AM-318	171.0 [6.73]			7X 19.0 [.075]	
AM-322	69.0 [2.72]	45.0 [1.77]	25.0 [0.98]	23.0 [0.91]	
AM-324	115.0 [4.53]			3X 23.0 [0.91]	
AM-326	161.0 [6.34]			5X 23.0 [0.91]	
AM-328	207.0 [8.15]			7X 23.0 [0.91]	
AM-332	82.0 [3.23]	52.0 [2.05]	29.0 [1.14]	28.0 [1.10]	3/8 NPT
AM-334	138.0 [5.46]			3X 28.0 [1.10]	
AM-336	194.0 [7.64]			5X 28.0 [1.10]	
AM-338	250.0 [9.84]			7X 28.0 [1.10]	

AM 5x Series Manifolds



MANIFOLD DIMENSIONS					
PART NO.	A	B	C	D	E
AM-512	57.0 [2.24]	58.0 [2.28]	25.0 [0.98]	19.0 [.075]*	1/4 NPT
AM-514	95.0 [3.74]			3X 19.0 [.075]*	
AM-516	133.0 [5.24]			5X 19.0 [.075]*	
AM-518	171.0 [6.73]			7X 19.0 [.075]*	
AM-522	69.0 [2.72]	61.0 [2.40]	26.0 [1.02]	23.0 [0.91]	
AM-524	115.0 [4.53]			3X 23.0 [0.91]	
AM-526	161.0 [6.34]			5X 23.0 [0.91]	
AM-528	207.0 [8.15]			7X 23.0 [0.91]	
AM-532	82.0 [3.23]	75.0 [2.95]	30.0 [1.19]	28.0 [1.10]	3/8 NPT
AM-534	138.0 [5.46]			3X 28.0 [1.10]	
AM-536	194.0 [7.64]			5X 28.0 [1.10]	
AM-538	250.0 [9.84]			7X 28.0 [1.10]	
AM-542	98.0 [3.86]	104.0 [4.09]	38.0 [1.50]	35.0 [1.38]	1/2 NPT
AM-544	168.0 [6.61]			3X 35.0 [1.38]	
AM-546	238.0 [9.37]			5X 35.0 [1.38]	
AM-548	308.0 [12.13]			7X 35.0 [1.38]	

**** Exhaust holes have 1mm offset from spacing centerline.***

See our website www.AutomationDirect.com for complete Engineering drawings.

Control Distribution Blocks for AVS Series Solenoid Valves



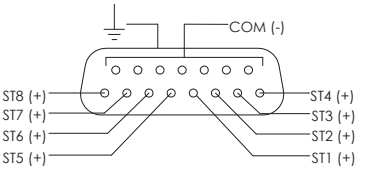
NITRA pneumatic control distribution blocks are a convenient way to connect a bank of valves to a controller. Replace all the wiring connectors supplied with the solenoid valves with this distribution block, and replace a bundle of solenoid cables with one DB15 cable. Each block matches up with a manifold of two to eight stations and includes built-in surge suppression and LED indication.

Features

- Single DB15 wiring connection
- Built-in surge suppression
- LED indication
- IP 65 rating
- 2 to 8 stations
- Use AVPS1-BP or AVPS2-BP plugs for any unused stations
- Mounting hardware and gaskets included
- Made in USA

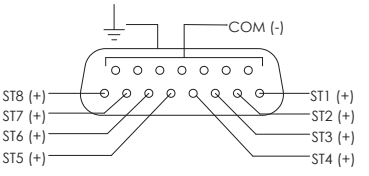
Control Distribution Block Technical Specifications		
Specification	***VDC Units***	***VAC Units***
Voltage Range	12-24 VDC	24-120 VAC
Temperature Range	0°F to 120°F (-20°C to 49°C)	
Max. Coil Power	4W	4VA
Electrical Connection	15-Pin D-Sub (DB15) Male	
Circuit Protection	N4004 Diode	MOV
Enclosure Rating	IP 65	
LED Indicator	Yes	
Material	ABS (Acrylonitrile butadiene styrene) Body	

Wiring



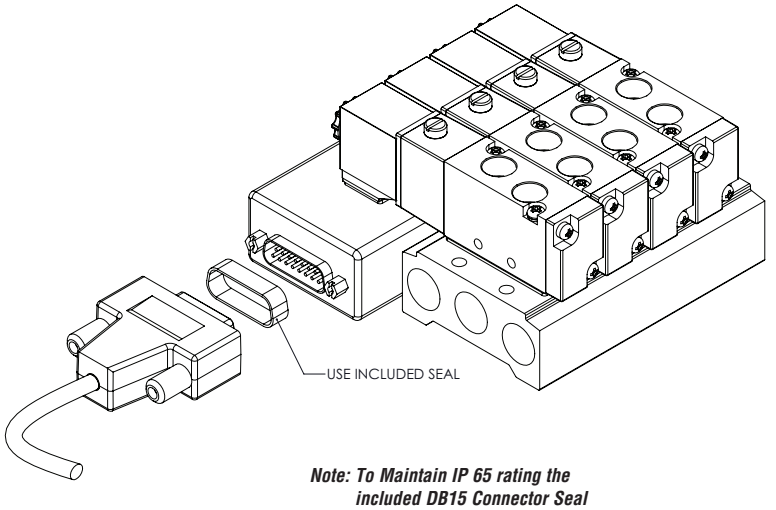
Control Distribution Block Pinout

AVPS1 Series Distribution Blocks



Control Distribution Block Pinout

AVPS2 / 3 / 4 Series Distribution Blocks



Note: To Maintain IP 65 rating the included DB15 Connector Seal must be used.

AVS-31 and AVS-51 Series Control Distribution Blocks



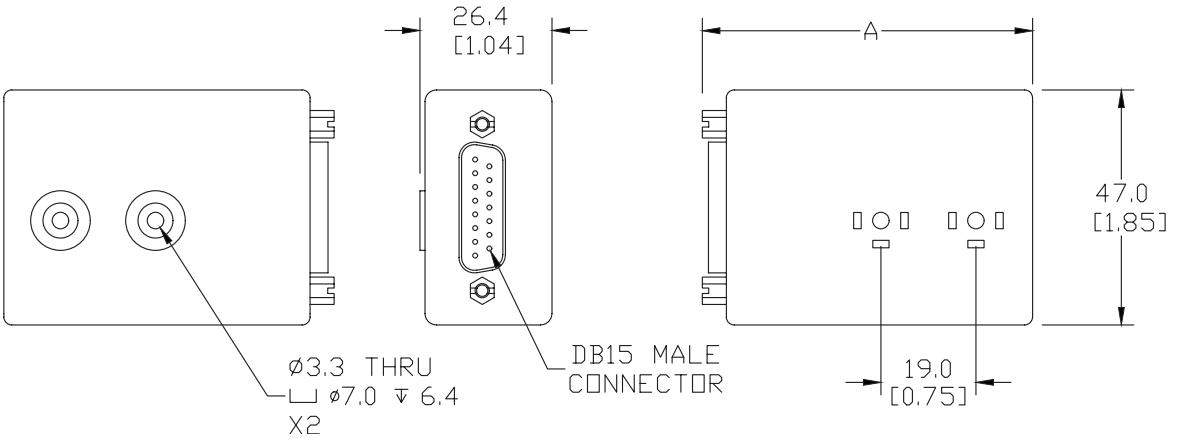
Part No. AVPS1-6A

AVS-31 and AVS-51 Series Control Distribution Blocks					
Part No.	***Voltage***	***Stations***	***Dimension "A" in [mm]***	***Price***	***Weight (lbs)***
AVPS1-2A	AC	2	2.60 [66.0]	$41.00	0.2
AVPS1-2D	DC			$41.00	0.2
AVPS1-4A	AC	4	4.09 [104.0]	$82.00	0.3
AVPS1-4D	DC			$82.00	0.3
AVPS1-6A	AC	6	5.59 [142.0]	$122.00	0.3
AVPS1-6D	DC			$122.00	0.3
AVPS1-8A	AC	8	7.09 [180.0]	$162.00	0.4
AVPS1-8D	DC			$162.00	0.4

Dimensions

mm [inches]

AVPS1-XX Series



See our website www.AutomationDirect.com for complete Engineering drawings.

AVS-32 and AVS-52 Series Control Distribution Blocks



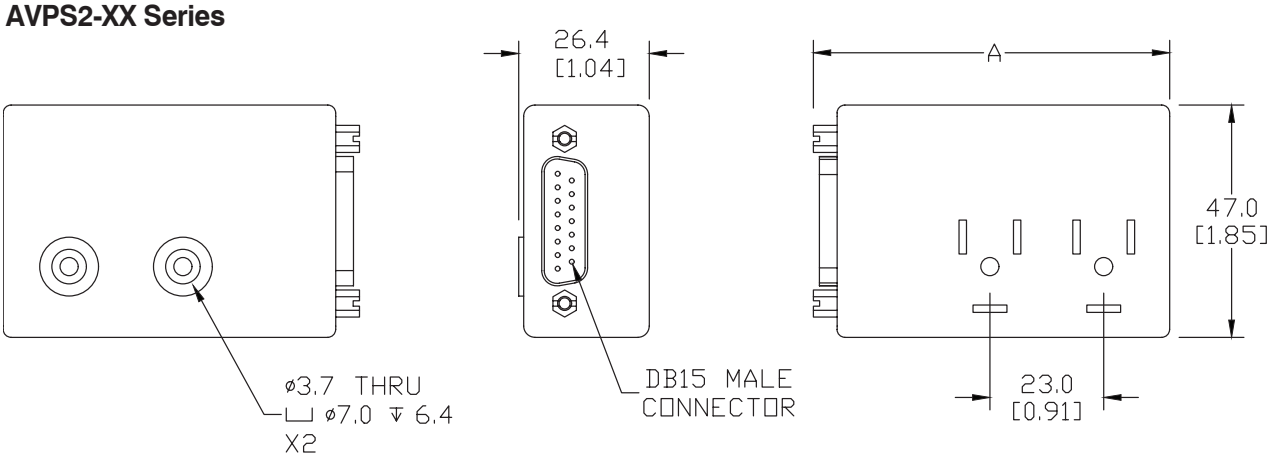
Part No. AVPS2-6A

AVS-32 and AVS-52 Series Control Distribution Blocks					
Part No.	***Voltage***	***Stations***	***Dimension "A" in [mm]***	***Price***	***Weight (lbs)***
AVPS2-2A	AC	2	2.84 [72.1]	$41.00	0.2
AVPS2-2D	DC			$41.00	0.2
AVPS2-4A	AC	4	4.65 [118.1]	$82.00	0.3
AVPS2-4D	DC			$82.00	0.3
AVPS2-6A	AC	6	6.46 [164.1]	$122.00	0.3
AVPS2-6D	DC			$122.00	0.3
AVPS2-8A	AC	8	8.27 [210.1]	$162.00	0.4
AVPS2-8D	DC			$162.00	0.4

Dimensions

mm [inches]

AVPS2-XX Series



See our website www.AutomationDirect.com for complete Engineering drawings.

AVS-33 and AVS-53 Series Control Distribution Blocks



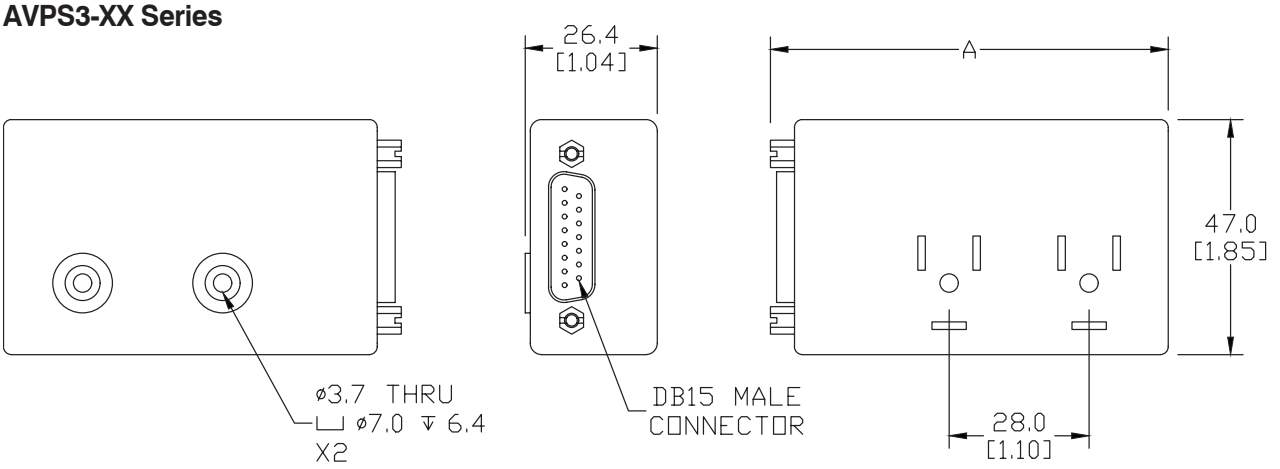
Part No. AVPS3-6A

AVS-33 and AVS-53 Series Control Distribution Blocks					
Part No.	***Voltage***	***Stations***	***Dimension "A" in [mm]***	***Price***	***Weight (lbs)***
AVPS3-2A	AC	2	3.13 [79.5]	$41.00	0.2
AVPS3-2D	DC			$41.00	0.2
AVPS3-4A	AC	4	5.33 [135.5]	$82.00	0.3
AVPS3-4D	DC			$82.00	0.3
AVPS3-6A	AC	6	7.54 [191.5]	$122.00	0.3
AVPS3-6D	DC			$122.00	0.3
AVPS3-8A	AC	8	9.74 [247.5]	$162.00	0.4
AVPS3-8D	DC			$162.00	0.4

Dimensions

mm [inches]

AVPS3-XX Series



See our website www.AutomationDirect.com for complete Engineering drawings.

AVS-54 Series Control Distribution Blocks



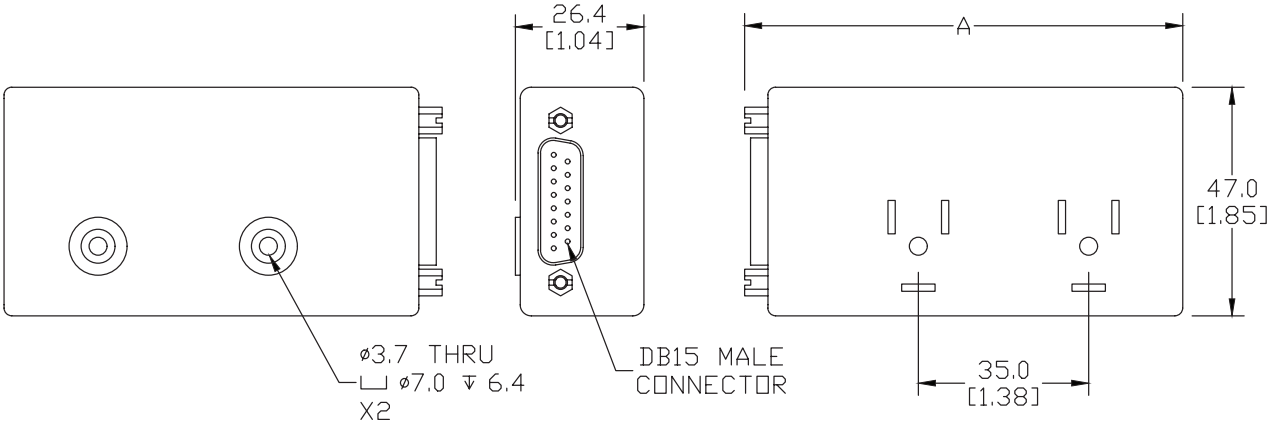
Part No. AVPS4-6A

AVS-54 Series Control Distribution Blocks					
Part No.	***Voltage***	***Stations***	***Dimension "A" in [mm]***	***Price***	***Weight (lbs)***
AVPS4-2A	AC	2	3.54 [90.0]	$41.00	0.2
AVPS4-2D	DC			$41.00	0.2
AVPS4-4A	AC	4	6.30 [160.0]	$82.00	0.3
AVPS4-4D	DC			$82.00	0.3
AVPS4-6A	AC	6	9.06 [230.0]	$122.00	0.3
AVPS4-6D	DC			$122.00	0.3
AVPS4-8A	AC	8	11.81 [300.0]	$162.00	0.4
AVPS4-8D	DC			$162.00	0.4

Dimensions

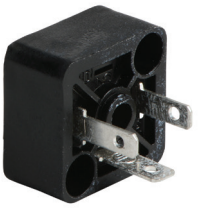
mm [inches]

AVPS4-XX Series



See our website www.AutomationDirect.com for complete Engineering drawings.

AVPS Series Control Distribution Blocks Accessories



Part No. AVPS1-BP



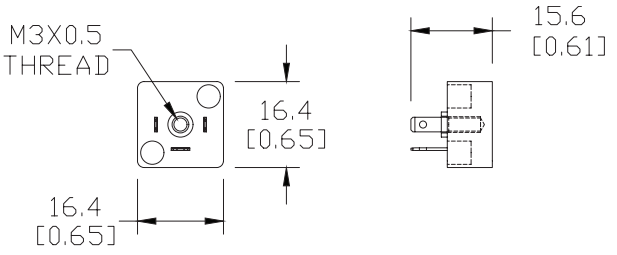
Part No. AVPS2-BP

AVPS Series Control Distribution Blocks Accessories			
Part No.	***Description***	***Price***	***Weight (lbs)***
AVPS1-BP	NITRA blanking plug, for use with AVPS1-x control distribution blocks.	$12.00	0.2
AVPS2-BP	NITRA blanking plug, for use with AVPS2-x, AVPS3-x and AVPS4-x control distribution blocks.	$12.00	0.3

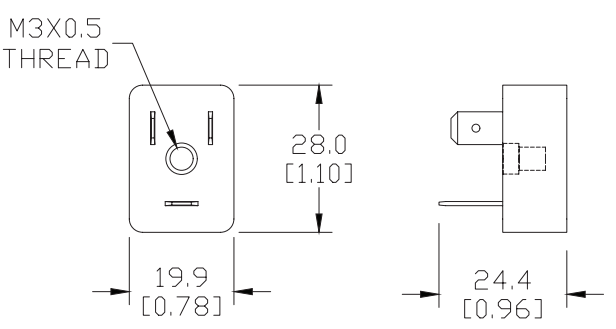
Dimensions

mm [inches]

APVS1-BP



APVS2-BP



See our website www.AutomationDirect.com for complete Engineering drawings.

NITRA PNEUMATICS

Process Pipeline Solenoid Valves DVD-2A Series



Part No. DVD-2AC3A-24D

Valve Symbol



2-way, 2-pos

The NITRA™ DVD-2A Series valves are 2-way, 2-position, normally closed valves for the control of air, oil, water, or media that is compatible with valve materials of manufacture. These valves feature an all brass body and a zero minimum pressure differential while still boasting a full flow 1/2" orifice. Available in 1/4", 3/8" and 1/2" FNPT port sizes, the DVD-2A valves can handle pressures to 230psi. The encapsulated coil construction ensures that the valve functions well under long periods of energization (100% duty), as well as providing a high degree of environmental protection (NEMA Type 4). The inner valve functions as a direct assist using a flat diaphragm and orifice plate. Pressure differentials shift the valve to full open. A push, non-locking manual override is standard.

Features

- 2-way diaphragm style valves
- 1/4, 3/8, or 1/2" FNPT ports
- 2-position, normally closed, spring return
- 24VDC, 24VAC, or 120VAC solenoids
- DIN style wiring connector



See www.AutomationDirect.com for a wide variety of fitting and cable options

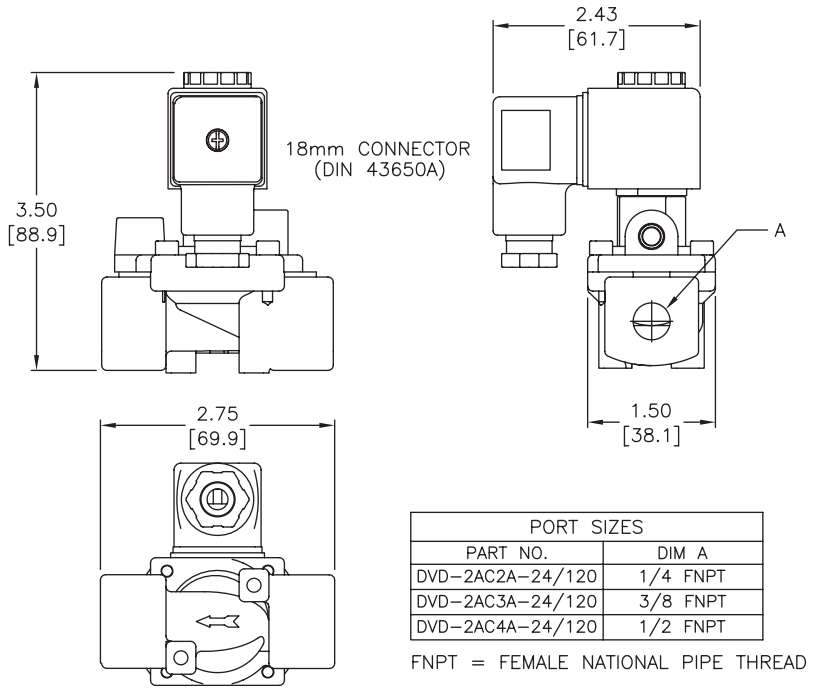
DVD-2A Series Solenoid Valve Specifications

Model	DVD-2AC2A-24D	DVD-2AC2A-24A	DVD-2AC2A-120A	DVD-2AC3A-24D	DVD-2AC3A-24A	DVD-2AC3A-120A	DVD-2AC4A-24D	DVD-2AC4A-24A	DVD-2AC4A-120A
Price	$65.00	$65.00	$65.00	$65.00	$65.00	$65.00	$65.00	$65.00	$65.00
Weight (lbs)	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.0
Valve Type	2-way, 2-position								
Acting	Diaphragm, normally closed, spring return								
Port Size	1/4" FNPT			3/8" FNPT			1/2" FNPT		
Orifice Size	1/2" [12.7 mm]								
Cv	1.55			1.95			2.45		
Media	Air, oil, water, emulsion, inert gases								
Pressure Range	1–180 psi [0–12.4 bar]	0–230 psi [0–15.9 bar]		1–180 psi [0–12.4 bar]	0–230 psi [0–15.9 bar]		1–180 psi [0–12.4 bar]	0–230 psi [0–15.9 bar]	
Voltage (± 10%)	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz
Inrush AC	–	10.5 VA		–	10.5 VA		–	10.5 VA	
Power Consumption	10W	9VA		10W	9VA		10W	9VA	
Max Freq	12.5 Hz								
Insulation	Class F (continuous duty)								
Min Response	20–80 ms complete cycle								
Temperature	Max fluid 194 deg F (90 deg C); Ambient 14 deg F to 122 deg F (-10 deg C to 50 deg C)								
Lubrication	Not required								
Protection	NEMA Type 4								
Connection	18mm DIN terminal								
Construction	Brass body; Viton seals; Operator Brass								
Life Cycle	10 million								
Agency Approvals	CE								

Process Pipeline Solenoid Valves DVD-2A Series

Dimensions

inches [mm]



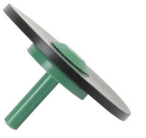
PORT SIZES	
PART NO.	DIM A
DVD-2AC2A-24/120	1/4 FNPT
DVD-2AC3A-24/120	3/8 FNPT
DVD-2AC4A-24/120	1/2 FNPT

FNPT = FEMALE NATIONAL PIPE THREAD

See our website www.AutomationDirect.com for complete Engineering drawings.

Accessories

DVD-2A Series Solenoid Valve Accessories			
Part No.	***Description***	***Price***	***Weight (lbs)***
DVD-1VSEAL	Seal kit, replacement, Viton, for DVD-2AC series NITRA pneumatic solenoid valves. Includes one Viton diaphragm.	$8.25	0.1



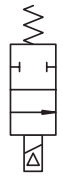
Part No. DVD-1VSEAL

Process Pipeline Solenoid Valves DVD-2B Series



Part No. DVD-2BC3A-120A

Valve Symbol



2-way, 2-pos

The NITRA™ DVD-2B Series valves are engineered composite 2-way, 2-position solenoid/air operated valves designed for the control of liquid media and inert gas. The valves are available with a large 1/2" or 1-1/8" orifice and five port sizes, 1/4", 3/8", 1/2", 3/4", and 1" FNPT. The valve's compact design utilizes the latest in material sciences with the use of composite materials in the valve body. The solenoid pilot is power saving low wattage, made of stainless steel working components and is miniaturized to fit in tight places. The fully encapsulated coils are available in three voltages with a DIN connector attached. Typical applications are for installations where there is a need to control inert fluids and gases, condensate drainage, hot water plumbing and sprinkler systems.

Features

- 2-way diaphragm style valves
- 1/4, 3/8, 1/2, 3/4, or 1" FNPT ports
- 2-position, normally closed, spring return
- 24VDC, 24VAC, or 120VAC solenoids
- DIN style wiring connector



See www.AutomationDirect.com for a wide variety of fitting and cable options

DVD-2B Series Solenoid Valve Specifications

Model	DVD-2BC2A-24D	DVD-2BC2A-24A	DVD-2BC2A-120A	DVD-2BC3A-24D	DVD-2BC3A-24A	DVD-2BC3A-120A	DVD-2BC4A-24D	DVD-2BC4A-24A	DVD-2BC4A-120A	DVD-2BC5F-24D	DVD-2BC5F-120A	DVD-2BC6F-24D	DVD-2BC6F-120A
Price	$44.00	$44.00	$44.00	$44.00	$44.00	$44.00	$44.00	$44.00	$44.00	$95.00	$95.00	$95.00	$95.00
Weight (lbs)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6
Valve Type	2-way, 2-position												
Acting	Diaphragm, normally closed, spring return												
Port Size	1/4" FNPT			3/8" FNPT			1/2" FNPT			3/4" FNPT		1" FNPT	
Orifice Size	1/2" [12.7 mm]									1.125" [28.6 mm]			
Cv	1.55			1.95			2.45			14			
Media	Air, oil, water, inert gas												
Pressure Range	7–150 psi* [0.5–10.3 bar]									10–120 psi [0.7–8.3 bar]			
Voltage (± 10%)	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz	24VDC	120VAC 50/60 Hz	24VDC	120VAC 50/60 Hz
Inrush AC	–	10VA		–	10VA		–	10VA		–	10.5 VA	–	10.5 VA
Power Consumption	6.5 W	8.5 VA		6.5 W	8.5 VA		6.5 W	8.5 VA		6 W	9 VA	6 W	9 VA
Max Freq	12.5 Hz									8.33 Hz			
Insulation	Class F (continuous duty)												
Min Response	20–80 ms complete cycle									80–120 ms complete cycle			
Temperature	14°F to 122°F [-10°C to 50°C]												
Lubrication	Not required												
Protection	NEMA Type 4												
Connection	11mm DIN terminal									18mm DIN terminal			
Construction	Glass filled nylon body; Viton seals; Operator Brass									Glass filled nylon body; Viton seals; Brass operator			
Life Cycle	10 million												
Agency Approvals	CE												

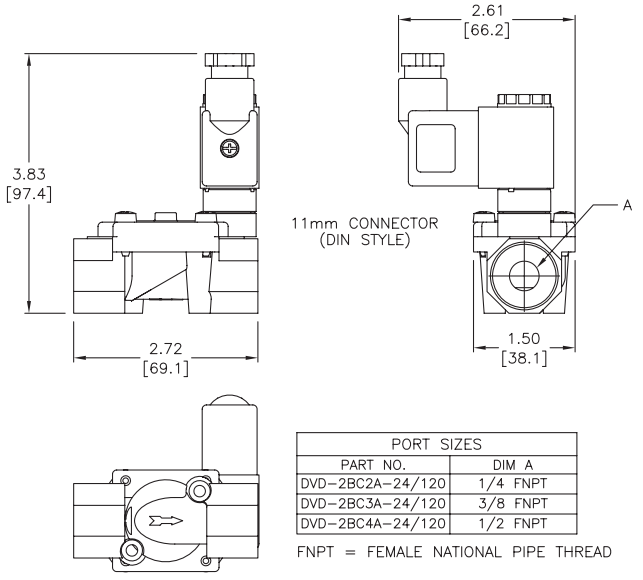
** Requires minimum sealing pressure*

Process Pipeline Solenoid Valves DVD-2B Series

Dimensions

inches [mm]

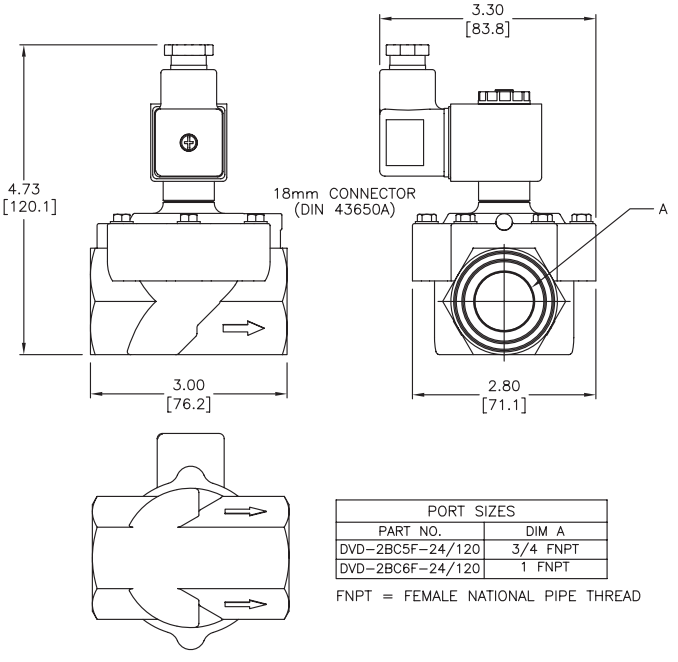
DVD-2BCXX



PORT SIZES	
PART NO.	DIM A
DVD-2BC2A-24/120	1/4 FNPT
DVD-2BC3A-24/120	3/8 FNPT
DVD-2BC4A-24/120	1/2 FNPT

FNPT = FEMALE NATIONAL PIPE THREAD

DVD-2BC5&6



PORT SIZES	
PART NO.	DIM A
DVD-2BC5F-24/120	3/4 FNPT
DVD-2BC6F-24/120	1 FNPT

FNPT = FEMALE NATIONAL PIPE THREAD

Accessories

See our website www.AutomationDirect.com for complete Engineering drawings.

DVD-2B Series Solenoid Valve Accessories			
Part No.	***Description***	***Price***	***Weight (lbs)***
DVD-2VSEAL	Seal kit, replacement, Viton, for DVD-2BC2A, DVD-2BC3A and DVD-2BC4A series NITRA pneumatic solenoid valves. Includes one Viton diaphragm.	$8.25	0.1
DVD-3VSEAL	Seal kit, replacement, Viton, for DVD-2BC5F or DVD-2BC6F series NITRA pneumatic solenoid valves. Includes one Viton diaphragm.	$22.50	0.6



Part No. DVD-2VSEAL



Part No. DVD-3VSEAL

NITRA PNEUMATICS

Process Pipeline Solenoid Valves DVP-2C & DVP-3C Series



Part No. DVP-2CC1C-24A

The NITRA™ DVP-2C and DVP-3C Series valves can be stacked into a multiple output bank of solenoid valves. The DVP-2C and 3C valves feature a fully encapsulated coil, spring compensated plunger seats for long life, and a miniature stackable composite valve body. The advantage to this design is the versatility to stock single units and build, mix, and match to meet specifications. In most cases these valves reduce inventory costs and lower installation costs over a conventional manifold valve series. The coils are available with DIN connectors installed.

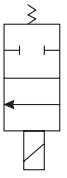
Features

- 2-way and 3-way stackable poppet style valves
- 1/8" FNPT ports
- 2-position, normally closed, spring return
- 24VDC, 24VAC or 120VAC solenoids
- DIN style wiring connector

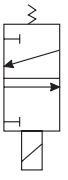


See www.AutomationDirect.com for a wide variety of fitting and cable options

Valve Symbols



2-way, 2-pos, NC



3-way, 2-pos, NC

CE RoHS 2002/95/EC

DVP-2C & DVP-3C Series Solenoid Valve Specifications

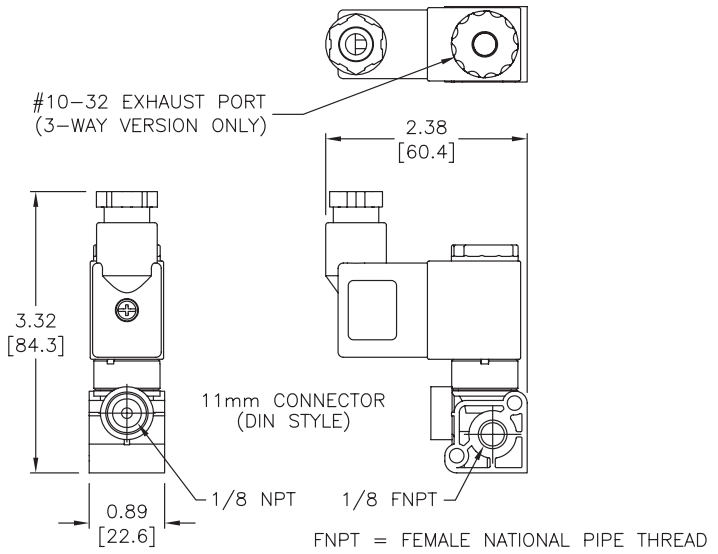
Model	DVP-2CC1C-24D	DVP-2CC1C-24A	DVP-2CC1C-120A	DVP-3CC1C-24D	DVP-3CC1C-24A	DVP-3CC1C-120A
Price	$21.50	$21.50	$21.50	$21.50	$21.50	$21.50
Weight (lbs)	0.3	0.3	0.3	0.3	0.3	0.3
Valve Type	2-way, 2-position			3-way, 2-position		
Acting	Stackable poppet valve, normally closed, spring return					
Port Size	1/8" FNPT					
Orifice Size	0.6" [1.5 mm]					
CV	0.8			0.8 (exhaust 0.08)		
Media	Air, oil, inert gas, water, caustics*					
Pressure Range	0–200 psi [0–13.8 bar]			1–150 psi [0–10.3 bar]		
Voltage (± 10%)	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz
Inrush AC	–	10VA		–	10VA	
Power Consumption	6.5 W	8.5 VA		6.5 W	8.5 VA	
Max Freq	71.4 Hz					
Insulation	Class F (continuous duty)					
Min Response	12–14 ms complete cycle					
Temperature	14°F to 122°F [-10°C to 50°C]					
Lubrication	Not required					
Protection	NEMA Type 4					
Connection	11mm DIN terminal					
Construction	Glass filled nylon body; Viton seals; Operator Brass					
Life Cycle	20 million					
Agency Approvals	CE					

** Check the chemical compatibility of the valve materials with the process media being used.*

Process Pipeline Solenoid Valves DVP-2C & DVP-3C Series

Dimensions

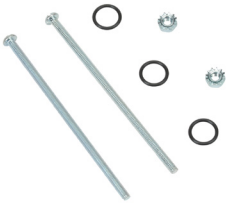
inches [mm]



See our website www.AutomationDirect.com for complete Engineering drawings.

Accessories

DVP-2C & DVP-3C Series Solenoid Valve Accessories			
Part No.	***Description***	***Price***	***Weight (lbs)***
DVP-2BKT	Mounting kit for DVP-2C & 3C series valves, 2 station. Includes (2) #8-32 x 2 inch screws, (2) #8 lock nuts and (1) Viton o-ring.	$4.25	0.1
DVP-3BKT	Mounting kit for DVP-2C & 3C series valves, 3 station. Includes (2) #8-32 x 3 inch screws, (2) #8 lock nuts and (2) Viton o-rings.	$5.75	0.1
DVP-4BKT	Mounting kit for DVP-2C & 3C series valves, 4 station. Includes (2) #8-32 x 4 inch screws, (2) #8 lock nuts and (3) Viton o-rings.	$7.25	0.1
DVP-5BKT	Mounting kit for DVP-2C & 3C series valves, 5 station. Includes (2) #8-32 x 5 inch screws, (2) #8 lock nuts and (4) Viton o-rings.	$8.75	0.1
DVP-6BKT	Mounting kit for DVP-2C & 3C series valves, 6 station. Includes (2) #8-32 x 6 inch screws, (2) #8 lock nuts and (5) Viton o-rings.	$10.50	0.1



Part No. DVP-4BKT

NITRA® PNEUMATICS

Process Pipeline Solenoid Valves DVP-2B & DVP-3B Series



Part No. DVP-2BC1C-24D

The NITRA™ DVP-2B and DVP-3B Series valves are composite body solenoid valves offered in both 2-way and 3-way normally closed styles. Component features include the proven solenoid operator available in brass/stainless or all stainless pilot design. The glass filled composite material is media compatible, eliminating the need for stocking multiple body materials.

Features

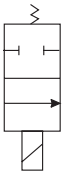
- 2-way and 3-way poppet style valves
- 1/8" FNPT ports
- 2-position, normally closed, spring return
- 24VDC, 24VAC or 120VAC solenoids
- DIN style wiring connectors

CE RoHS 2002/95/EC

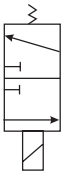


See www.AutomationDirect.com for a wide variety of fitting and cable options

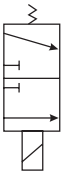
Valve Symbols



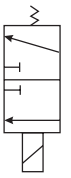
2-way, 2-pos, NC



3-way, 2-pos, NC



3-way, 2-pos, Mixing



3-way, 2-pos, Diverting

DVP-2B & DVP-3B Series Solenoid Valve Specifications

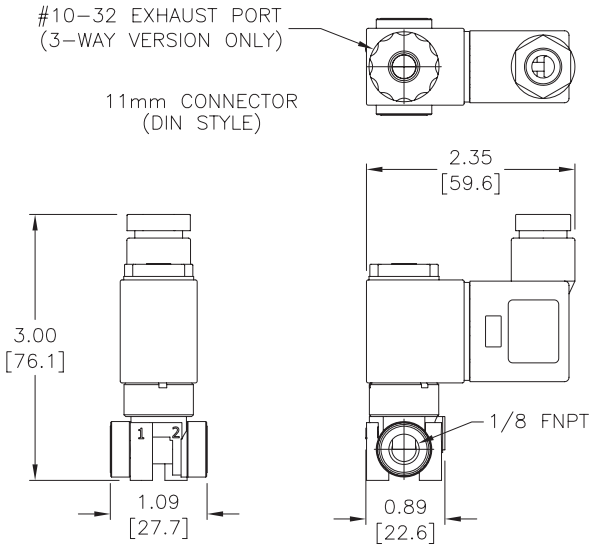
Model	*DVP-2BC1C-24D*	*DVP-2BC1C-24A*	*DVP-2BC1C-120A*	*DVP-3BC1C-24D*	*DVP-3BC1C-24A*	*DVP-3BC1C-120A*
Price	$21.50	$21.50	$21.50	$21.50	$21.50	$21.50
Weight (lbs)	0.3	0.3	0.3	0.3	0.3	0.3
Valve Type	2-way, 2-position			3-way, 2-position		
Acting	Poppet valve, normally closed, spring return			Poppet valve, normally closed, spring return		
Port Size	1/8" FNPT					
Orifice Size	0.059" [1.5 mm]					
Cv	0.8			0.8 (exhaust 0.08)		
Media	Air, oil, inert gas, water, caustics*					
Pressure Range	0–200 psi [0–13.8 bar]			1–150 psi [0–10.3 bar]		
Voltage (±10%)	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz
Inrush AC	–	10VA		–	10VA	
Power Consumption	6.5 W	8.5 VA		6.5 W	8.5 VA	
Max Freq	71.4 Hz					
Insulation	Class F (continuous duty)					
Min Response	12–14 ms complete cycle					
Temperature	14°F to 122°F [-10°C to 50°C]					
Lubrication	Not Required					
Protection	NEMA Type 4					
Connection	11mm DIN terminal					
Construction	Glass filled nylon body; Viton seals; Operator Brass					
Life Cycle	20 million					
Agency Approvals	CE					

**** Check the chemical compatibility of the valve materials with the process media being used.***

Process Pipeline Solenoid Valves DVP-2B & DVP-3B Series

Dimensions

inches [mm]



FNPT = FEMALE NATIONAL PIPE THREAD

See our website www.AutomationDirect.com for complete Engineering drawings.

NITRA PNEUMATICS

Process Pipeline Solenoid Valves DVP-2D & DVP-3D Series



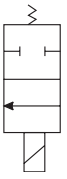
Part No. DVP-2DC1D-24D

The Nitra DVP-2D and DVP-3D Series valves are composite body solenoid valves offered in both 2-way and 3-way normally closed styles in three orifice sizes. Features include a direct acting solenoid utilizing a long-life spring compensated poppet at the heart of an all stainless solenoid operator. Body construction is glass filled nylon with Viton seals, making the valves compatible with air, oil, inert gas, water and caustics*. Operating voltages of 24VDC, 24VAC or 120VAC are available.

Features

- 2-way and 3-way poppet style valves
- 1/8, 1/4 or 3/8" FNPT ports
- 2-position, normally closed, spring return
- 24VDC, 24VAC or 120VAC solenoids
- DIN style wiring connector

Valve Symbols



2-way, 2-pos, NC



See www.AutomationDirect.com for a wide variety of fitting and cable options

CE RoHS 2002/95/EC

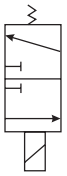
DVP-2D Series Solenoid Valve Specifications

Model	DVP-2DC1D-24D	DVP-2DC1D-24A	DVP-2DC1D-120A	DVP-2DC2E-24D	DVP-2DC2E-24A	DVP-2DC2E-120A	DVP-2DC3F-24D	DVP-2DC3F-24A	DVP-2DC3F-120A
Price	$40.00	$40.00	$40.00	$40.00	$40.00	$40.00	$40.00	$40.00	$40.00
Weight (lbs)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Valve Type	2-way, 2-position								
Acting	Poppet valve, normally closed, spring return						Poppet valve, normally closed, spring return		
Port Size	1/8" FNPT			1/4" FNPT			3/8" FNPT		
Orifice Size	0.062" [1.6 mm]			0.094" [2.4 mm]			0.118" [3.0 mm]		
Cv	0.12			0.245			0.315		
Media	Air, oil, inert gas, water, caustics*								
Pressure Range	0–250 psi [0–17.2 bar]								
Voltage (±10%)	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz
Inrush AC	–	26VA		–	26VA		–	26VA	
Power Consumption	10W	11.5 VA		10W	11.5 VA		10W	11.5 VA	
Max Freq	25Hz								
Insulation	Class F (continuous duty)								
Min Response	16–40 ms								
Temperature	14°F to 122°F [-10°C to 50°C]								
Lubrication	Not Required								
Protection	NEMA Type 4								
Connection	18mm DIN terminal								
Construction	Glass filled nylon body; Viton seals; Operator Stainless Steel								
Life Cycle	10 million								
Agency Approvals	CE								

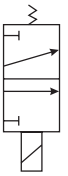
** Check the chemical compatibility of the valve materials with the process media being used.*

Process Pipeline Solenoid Valves DVP-2D & DVP-3D Series

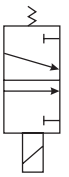
Valve Symbols



3-way, 2-pos, NC



3-way, 2-pos, Mixing



3-way, 2-pos, Diverting

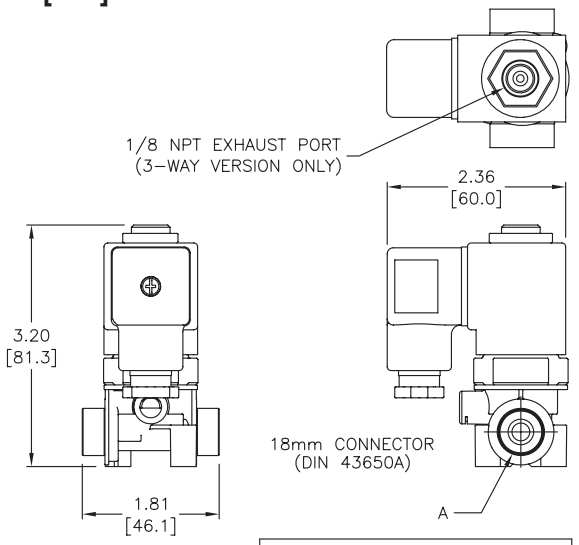
DVP-3D Series Solenoid Valve Specifications									
Model	DVP-3DC1D-24D	DVP-3DC1D-24A	DVP-3DC1D-120A	DVP-3DC2E-24D	DVP-3DC2E-24A	DVP-3DC2E-120A	DVP-3DC3F-24D	DVP-3DC3F-24A	DVP-3DC3F-120A
Price	$40.00	$40.00	$40.00	$40.00	$40.00	$40.00	$40.00	$40.00	$40.00
Weight (lbs)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Valve Type	3-way, 2-position								
Acting	Poppet valve, normally closed, spring return								
Port Size	1/8" FNPT			1/4" FNPT			3/8" FNPT		
Orifice Size	0.062" [1.6 mm]			0.094" [2.4 mm]			0.118" [3.0 mm]		
Cv	0.12 (exhaust port 0.08)			0.245 (exhaust port 0.08)			0.315 (exhaust port 0.08)		
Media	Air, oil, inert gas, water, caustics*								
Pressure Range	0–220 psi [0–15.2 bar]			1–150 psi [0–10.3 bar]			1–110 psi [0–7.6 bar]		
Voltage (±10%)	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz
Inrush AC	–	26VA		–	26VA		–	26VA	
Power Consumption	10W	11.5 VA		10W	11.5 VA		10W	11.5 VA	
Max Freq	25Hz								
Insulation	Class F (continuous duty)								
Min Response	16–40 ms								
Temperature	14°F to 122°F [-10°C to 50°C]								
Lubrication	Not Required								
Protection	NEMA Type 4								
Connection	18mm DIN terminal								
Construction	Glass filled nylon body; Viton seals; Operator Brass								
Life Cycle	10 million								
Agency Approvals	CE								

**** Check the chemical compatibility of the valve materials with the process media being used.***

Process Pipeline Solenoid Valves
DVP-2D & DVP-3D Series

Dimensions

inches [mm]



PORT SIZES	
PART NO.	DIM A
DVP–2DC1D–24/120	1/8 FNPT
DVP–2DC2E–24/120	1/4 FNPT
DVP–2DC3F–24/120	3/8 FNPT
DVP–3DC1D–24/120	1/8 FNPT
DVP–3DC2E–24/120	1/4 FNPT
DVP–3DC3F–24/120	3/8 FNPT

FNPT = FEMALE NATIONAL PIPE THREAD

See our website www.AutomationDirect.com for complete Engineering drawings.

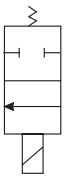
NITRA PNEUMATICS

Process Pipeline Solenoid Valves DVM-2B Series



Part No. DVM-2BC2E-24D

Valve Symbols



2-way, 2-pos, NC

The Nitra DVM-2B Series valves are media separated, dry operator, 2-way, 2-position solenoid operated valves for use with gases or fluids where the metal working components of the valves do not come into contact with the working fluid. Three orifice sizes are offered. Body construction is glass filled nylon with Viton seals, making the valves compatible with air, gases, water and chemicals. Operating voltages of 24VDC, 24VAC or 120VAC are available.

Features

- 2-way media separated diaphragm style valve
- 1/8 or 1/4" FNPT ports
- 2-position, normally closed, spring return
- 24VDC, 24VAC or 120VAC solenoids
- DIN style wiring connector



See www.AutomationDirect.com for a wide variety of fitting and cable options

CE RoHS 2002/95/EC

DVM-2B Series Solenoid Valve Specifications

Model	DVM-2BC1B-24D	DVM-2BC1B-24A	DVM-2BC1B-120A	DVM-2BC2E-24D	DVM-2BC2E-24A	DVM-2BC2E-120A	DVM-2BC2G-24D	DVM-2BC2G-24A	DVM-2BC2G-120A
Price	$45.00	$45.00	$45.00	$66.00	$52.00	$66.00	$66.00	$66.00	$66.00
Weight (lbs)	0.2	0.2	0.2	0.6	0.6	0.6	0.6	0.6	0.6
Valve Type	2-way, 2-position								
Acting	Media separated valve, normally closed, spring return								
Port Size	1/8" FNPT			1/4" FNPT					
Orifice Size	0.047" [1.2 mm]			0.094" [2.4 mm]			0.157" [4.0 mm]		
Cv	0.065			0.24			0.52		
Media	Water, chemicals, air, gases			Air, noble gases, oils, medical fluid applications*					
Pressure Range	0 to 120 psi [0 to 8.3 bar]			15" Hg (mercury) to 120psi [-0.5 to 8.3 bar]	15" Hg (mercury) to 150psi [-0.5 to 10.3 bar]		15" Hg (mercury) to 45psi [-0.5 to 3.1 bar]	15" Hg (mercury) to 55psi [-0.5 to 3.8 bar]	
Voltage (±10%)	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz
Inrush AC	–	10VA		–	10.5 VA		–	26VA	
Power Consumption	6.5 W	8.5 VA		10W	9VA		10W	9VA	
Max Freq	40Hz			38.5 Hz					
Insulation	Class F (continuous duty)								
Min Response	18–25 ms complete cycle			18–26 ms complete cycle					
Temperature	14°F to 131°F [-10°C to 55°C]			14°F to 122°F [-10°C to 50°C]					
Lubrication	Not required								
Protection	NEMA Type 4								
Connection	11mm DIN terminal			18mm DIN terminal					
Construction	Glass filled nylon body; Viton seals								
Life Cycle	10 million								
Agency Approvals	CE								

** Check the chemical compatibility of the valve materials with the process media being used.*

NITRA PNEUMATICS

Process Pipeline Solenoid Valves
DVM-2B Series

DVM-2B Series Solenoid Valve Specifications						
Model	DVM-2BC3E-24D	DVM-2BC3E-24A	DVM-2BC3E-120A	DVM-2BC3G-24D	DVM-2BC3G-24A	DVM-2BC3G-120A
Price	$65.00	$52.00	$52.00	$66.00	$52.00	$66.00
Weight (lbs)	0.6	0.6	0.6	0.6	0.6	0.6
Valve Type	Media separated valve					
Acting	2-way, 2-position, normally closed, spring return					
Port Size	3/8" FNPT					
Orifice Size	0.094" [2.4 mm]			0.157" [4.0 mm]		
Cv	0.24			0.52		
Fluid	Air, noble gases, oils, medical fluid applications*					
Pressure Range	15" vacuum to 120psi [0.04–8.3 bar]	15" vacuum to 150psi [0.04–10.3 bar]		15" vacuum to 45psi [0.04–3.1 bar]	15" vacuum to 55psi [0.04–3.8 bar]	
Voltage (±10%)	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz
Inrush AC	–	26VA		–	26VA	
Power Consumption	10W	11.5 VA		10W	11.5 VA	
Max Freq	38.5 Hz					
Insulation	Class F (continuous duty)					
Min Response	18–26 ms complete cycle					
Temperature	14°F to 122°F [-10°C to 50°C]					
Lubrication	Not required					
Protection	NEMA Type 4					
Connection	18mm DIN terminal					
Construction	Glass filled nylon body; Viton seals					
Life Cycle	10 million					
Agency Approvals	CE					

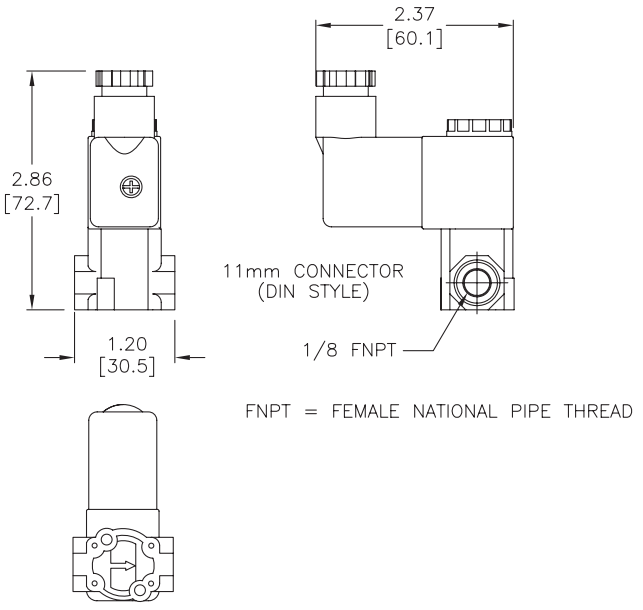
**** Check the chemical compatibility of the valve materials with the process media being used.***

Process Pipeline Solenoid Valves
DVM-2B Series

Dimensions

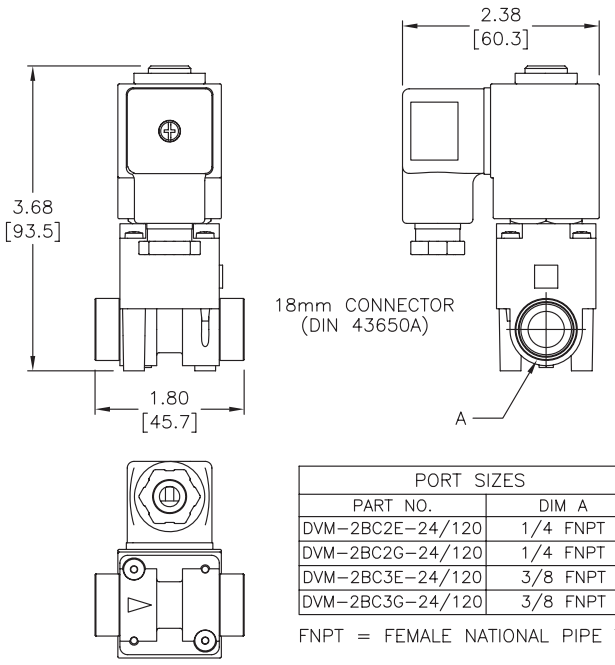
inches [mm]

DVM-2BC1B-XX



FNPT = FEMALE NATIONAL PIPE THREAD

DVM-2BCXX



PORT SIZES	
PART NO.	DIM A
DVM-2BC2E-24/120	1/4 FNPT
DVM-2BC2G-24/120	1/4 FNPT
DVM-2BC3E-24/120	3/8 FNPT
DVM-2BC3G-24/120	3/8 FNPT

FNPT = FEMALE NATIONAL PIPE THREAD

See our website www.AutomationDirect.com for complete Engineering drawings.

Solenoid Valve Cables and Connectors



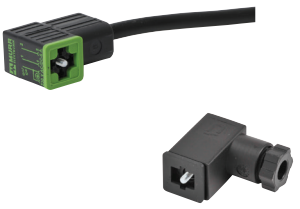
These high quality connectors and over-molded cables help reduce wiring time. The lower voltage models, 24V or 110V AC/DC, include built-in surge suppression, Yellow LED indicator and are rated for connecting with electronics. The 230V AC/DC models are rated for straight wired products. All models are available in five sizes based on DIN 43650.

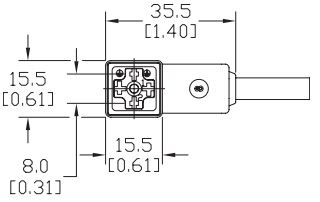
Features

- 8mm, 9.4mm, 10mm, 11mm and 18mm square DIN styles
- Fits most popular solenoid valves and sensors
- Suppression and LED indication available in 24V or 110V AC/DC models
- PVC jacketed cables in 1, 3 or 5 meter lengths on select connectors
- Field wireable connectors on select models
- Polarity insensitive (follow solenoid, sensor, or other devices wiring diagram)

8mm Connectors

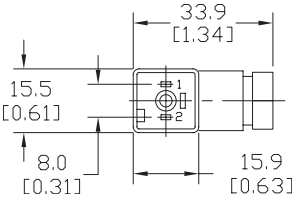
Dimensions shown
mm [inches]





Height = 25mm [0.98in]

Connector with Cable



Height = 26mm [1.02]

Field Wireable Connector

8mm (3-pole) Connectors (per DIN 43650 Form C)												
Part No.	**Price**	**Voltage (AC/DC)**	**Current Rating**	**IP Rating**	**Wire Size**	**Cable Dia. (in.)**	**LED**	**Surge Protection**	**Wiring Figure**	**Screw Size/ Torque**	**Weight (lbs)**	**Agency Approval**
SC8-LS24-3	$11.00	24 ±20%	max 4A	67	18 AWG	0.23	yes	zener diode (D-Z DO-15 47V 2W)	1	m2.5-0.45x25mm/ 0.4 Nm (3.5 in lb)	0.40	CSA (080128-0-000)
SC8-LS24-5	$13.00										0.65	
SC8-LS110-3	$13.50	110 ±10%						zener diode (D-Z DO-41 ZY200 2W)	7		0.41	
SC8-LS110-5	$16.00										0.63	
SC8-3	$9.75	230	max 6A	67	18 AWG	0.23	no	none	2	m2.5-0.45x25mm/ 0.5 Nm (4.4 in lb)	0.39	none
SC8-0	$5.00			65	Solid 12 AWG Stranded 14 AWG w/Ferrule 16 AWG	gland size 0.20 to 0.24			9		0.10	
SC8-1	$9.75			67	18 AWG	0.23			2		0.10	
SC8-5	$12.00										0.68	

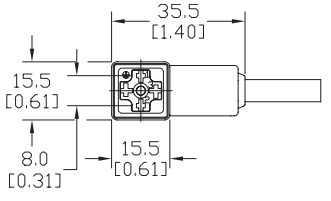
Please note: The above parts are not compatible with the AVP and AVS series valves, which have 11mm DIN plugs.

Last digit in part number denotes cable length in meters, a 0 indicates field termination.

8mm Transmitter Connector

Dimensions shown
mm [inches]





Height = 25mm [0.98in]

Connector with Cable

8mm (4-pole) Connectors (per DIN 43650 Form C)											
Part No.	**Price**	**Voltage (AC/DC)**	**Current Rating**	**IP Rating**	**Wire Size**	**Cable Dia. (in.)**	**LED**	**Surge Protection**	**Wiring Figure**	**Screw Size/ Torque**	**Weight (lbs)**	**Agency Approval**
SC8-5T	$17.00	230	max 6A	67	18 AWG	0.26	yes	none	8	m3-0.5x42mm/ 0.5 Nm (4.4 in lb)	0.80	CSA (080128-0-000)

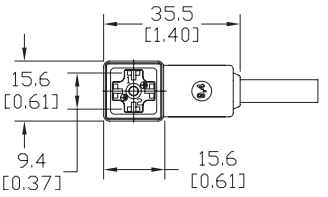
Last digit in part number denotes cable length in meters, a 0 indicates field termination.

Solenoid Valve Cables and Connectors

9.4mm Connectors

Dimensions shown
mm [inches]





Height = 25mm [0.98in]

Connector with Cable

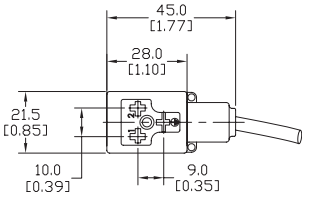
9.4mm (3-pole) Connectors (DIN Style, Form C Industrial)												
Part No.	**Price**	**Voltage (AC/DC)**	**Current Rating**	**IP Rating**	**Wire Size**	**Cable Dia. (in.)**	**LED**	**Surge Protection**	**Wiring Figure**	**Screw Size/ Torque**	**Weight (lbs)**	**Agency Approval**
SC9-LS24-3	$11.00	24 ±20%	max 4A	67	18 AWG	0.23	yes	zener diode (D-Z DO-15 47V 2W)	1	m3-0.5x26mm/ 0.4 Nm (3.5 in lb)	0.40	CSA (080128-0-000)
SC9-LS24-5	$13.00										0.64	
SC9-LS110-3	$13.50	110 ±10%						zener diode (D-Z DO-41 ZY200 2W)	7		0.40	
SC9-LS110-5	$16.00										0.64	
SC9-3	$9.75	230	max 6A				no	none	2	m3-0.5x26mm/ 0.5 Nm (4.4 in lb)	0.40	none
SC9-5	$12.00										0.64	

Please note: The above parts are not compatible with the AVP and AVS series valves, which have 11mm DIN plugs.
Last digit in part number denotes cable length in meters.

10mm Connectors

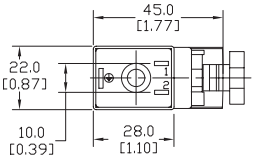
Dimensions shown
mm [inches]





Height = 30mm [1.18in]

Connector with Cable



Height = 41mm [1.61in]

Field Wireable Connector

10mm (3-pole) Connectors (per DIN 43650 Form B)												
Part No.	**Price**	**Voltage (AC/DC)**	**Current Rating**	**IP Rating**	**Wire Size**	**Cable Dia. (in.)**	**LED**	**Surge Protection**	**Wiring Figure**	**Screw Size/ Torque**	**Weight (lbs)**	**Agency Approval**
SC10-LS24-3	$11.00	24 ±20%	max 4A	67	18 AWG	0.23	yes	zener diode (D-Z DO-15 47V 2W)	10	m3-0.5x30mm/ 0.4 Nm (3.5 in lb)	0.43	CSA (080128-0-000)
SC10-LS24-5	$13.00										0.68	
SC10-LS110-3	$13.50	110 ±10%	max 1A					zener diode (D-Z DO-41 ZY200 2W)	6		0.43	
SC10-LS110-5	$16.00										0.68	
SC10-3	$9.75	230	max 10A				no	none	3		0.43	
SC10-5	$12.00										0.68	
SC10-LS24-0	$9.50	24 ±20%	max 4A	65	Solid 12 AWG Stranded 14 AWG w/Ferrule 16 AWG	gland size 0.24 to 0.32	yes	zener diode (D-Z DO-15 47V 2W)	4	m3-0.5x42mm/ 0.5 Nm (4.4 in lb)	0.07	none
SC10-LS110-0	$10.00	110 ±10%	max 1A					mov (SIOV S10 K130)	5		0.07	
SC10-0	$7.50	230	max 10A				no	none	9		0.06	

Please note: The above parts are not compatible with the AVP and AVS series valves, which have 11mm DIN plugs.

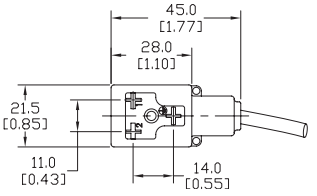
Last digit in part number denotes cable length in meters, a 0 indicates field termination.

Solenoid Valve Cables and Connectors

11mm Connectors

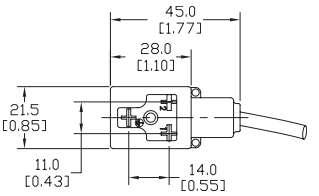
Dimensions shown mm [inches]





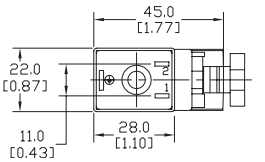
Height = 30mm [1.18in]

Connector with Cable



Height = 30mm [1.18in]

Reverse Connector with Cable



Height = 41mm [1.61in]

Field Wireable Connector

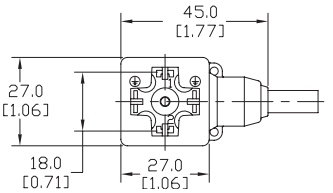
11mm (3-pole) Connectors (DIN Style, Form B Industrial)												
Part No.	*Price*	*Voltage (AC/DC)*	*Current Rating*	*IP Rating*	*Wire Size*	*Cable Dia. (in)*	*LED*	*Surge Protection*	*Wiring Figure*	*Screw Size/ Torque*	*Weight (lbs)*	*Agency Approval*
SC11-LS24-3	$11.00	24 ±20%	max 4A	67	18 AWG	0.23	yes	zener diode (D-Z DO-15 47V 2W)	10	m3-0.5x30mm/ 0.4 Nm (3.5 in lb)	0.44	CSA (080128-0-000)
SC11-LS24-5	$13.00										0.67	
SC11-LS110-3	$13.50	110 ±10%	max 1A					zener diode (D-Z DO-41 ZY200 2W)	6		0.44	
SC11-LS110-5	$16.00										0.67	
SC11-LS24-3R	$11.00	24 ±20%	max 4A					zener diode (D-Z DO-15 47V 2W)	10		0.44	
SC11-LS24-5R	$13.00										0.67	
SC11-LS110-3R	$13.50	110 ±10%	max 1A					zener diode (D-Z DO-41 ZY200 2W)	6		0.44	
SC11-LS110-5R	$16.00										0.67	
SC11-3	$9.75	230	max 10A				no	none	3		0.44	
SC11-5	$12.00										0.67	
SC11-LS24-0	$9.50	24 ±20%	max 4A	65	Solid 12 AWG Stranded 14 AWG w/Ferrule 16 AWG	gland size 0.24 to 0.32	yes	zener diode (D-Z DO-15 47V 2W)	4	m3-0.5x42mm/ 0.5 Nm (4.4 in lb)	0.07	none
SC11-LS110-0	$10.00	110 ±10%	max 1A					mov (SIOV S10 K130)	5		0.07	
SC11-0	$7.50	230	max 10A				no	none	9		0.07	

Last digit in part number denotes cable length in meters, a 0 indicates field termination.

18mm Connectors

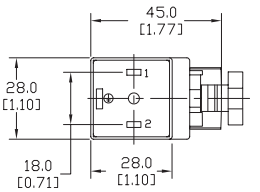
Dimensions shown mm [inches]





Height = 30mm [1.18in]

Connector with Cable



Height = 41mm [1.61in]

Field Wireable Connector

18mm (3-pole) Connectors (per DIN 43650 Form A)												
Part No.	*Price*	*Voltage (AC/DC)*	*Current Rating*	*IP Rating*	*Wire Size*	*Cable Dia. (in)*	*LED*	*Surge Protection*	*Wiring Figure*	*Screw Size/ Torque*	*Weight (lbs)*	*Agency Approval*
SC18-LS24-3	$11.00	24 ±20%	max 4A	67	18 AWG	0.23	yes	zener diode (D-Z DO-15 47V 2W)	7	m3-0.5x30mm/ 0.4 Nm (3.5 in lb)	0.44	CSA (080128-0-000)
SC18-LS24-5	$13.00										0.69	
SC18-LS110-3	$13.50	110 ±10%	max 1A					zener diode (D-Z DO-41 ZY200 2W)			0.44	
SC18-LS110-5	$16.00										0.69	
SC18-3	$9.75	230	max 10A				no	none	2		0.44	
SC18-5	$12.00										0.69	
SC18-LS24-0	$9.50	24 ±20%	max 4A	65	Solid 12 AWG Stranded 14 AWG w/Ferrule 16 AWG	gland size 0.24 to 0.32	yes	zener diode (D-Z DO-15 47V 2W)	4	m3-0.5x42mm/ 0.5 Nm (4.4 in lb)	0.07	none
SC18-LS110-0	$10.00	110 ±10%	max 1A					mov (SIOV S10 K130)	5		0.07	
SC18-0	$7.50	230	max 10A				no	none	9		0.07	

Please note: The above parts are not compatible with the AVP and AVS series valves, which have 11mm DIN plugs.

Last digit in part number denotes cable length in meters, a 0 indicates field termination.

Solenoid Valve Cables and Connectors Wiring Diagrams

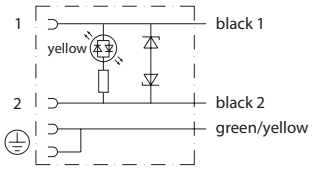


Figure No. 1

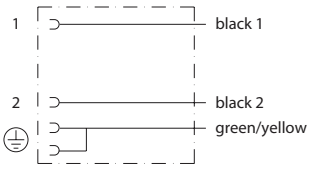


Figure No. 2

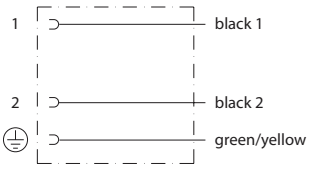


Figure No. 3

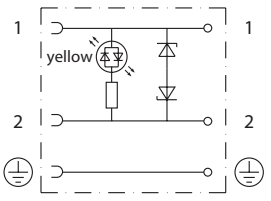


Figure No. 4

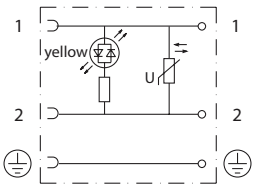


Figure No. 5

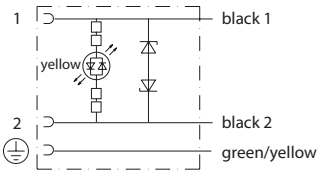


Figure No. 6

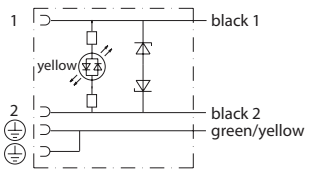


Figure No. 7

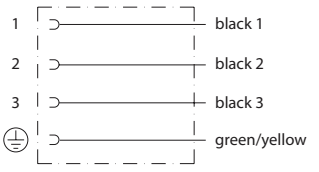


Figure No. 8

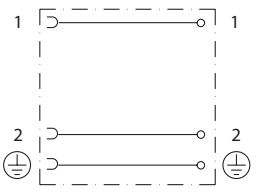


Figure No. 9

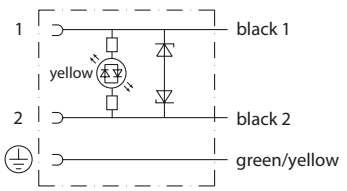
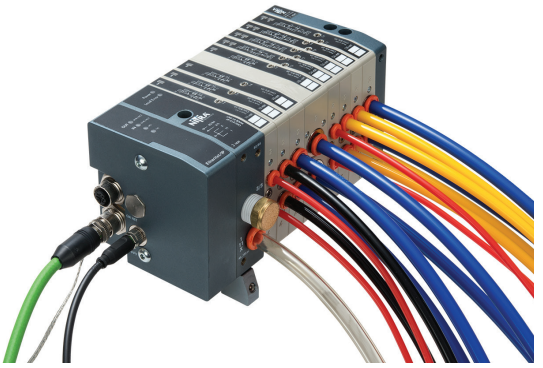
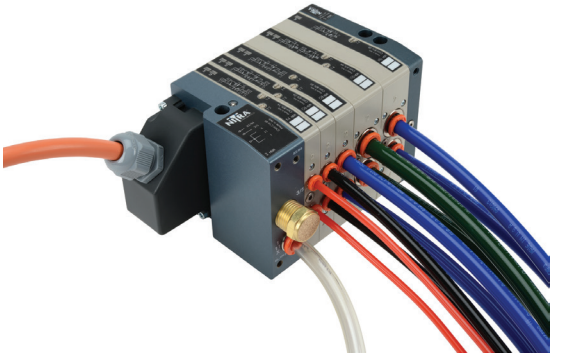


Figure No. 10

Compact Modular Valves



Unit assembly shows Compact Modular Valve bank with EIP Module attached.



Unit assembly shows Compact Modular Valve bank with D-Sub Module attached.

NITRA compact modular valves are the ideal solution for those requiring the unbeatable performance, flexibility and modularity of multiple valves combined with sturdy mechanics and a high degree of protection. Each valve is enclosed in a reinforced technopolymer (Celcon®) protective shell that acts as a shock-absorber and prevents the infiltration of dirt. The smooth, rounded design makes the system ideal for applications requiring frequent washing. All the pneumatic connections are on one side, with built-in push-to-connect fittings. The systems offer a variety of flexibility from one to 16 solenoids. Valves can be mixed to use tubing of different sizes and can be individually replaced. The electrical signals are relayed from one valve to the next by gold-plated contacts so the electrical connections are entirely automatic. Both EtherNet/IP or 25-pin D-Sub connector electrical connections are available (Ethernet models require a separate power cable and include a ground strap). Inlet/exhaust end plates and intermediate modules provide flexibility to operate valve banks at vacuum or dual pressures.

Building the Valve Bank:

Step 1. Select the control interface: EtherNet/IP or D-Sub connector.

Step 2. Determine operating pressure and volume.

- Single input/pilot: 45-100 psi, Cv = 12.4
- Duel inlet: vacuum-145 psi, Cv = 12.4 or 16.6; Pilot: 45-100 psi
- Right end dual: vacuum-145 psi, Cv = 16.6

Step 3. Choose Valves:

- 3-way –> (2) Separate valves per module
- 5-way –> 2-position or 3-position

NOTE: Maximum (16) solenoids (not valves) per bank

Step 4. (Optional) Choose intermediate module

- Through - Adds an inlet and exhaust, others pass thru
- Blind - Blocks inlets from left, adds (2) inlets that feed to the right, and splits a bank into (2) smaller banks.
- Exhaust - Adds an exhaust port, others pass thru

Compact Modular Valves

Compact Modular Valves - End Plates

One left and one right end plate is required per manifold. For continuous flow that will exceed the Cv of the end plates, consider adding an intermediate plate.

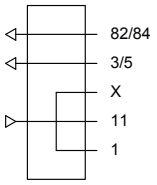


Diagram "A"

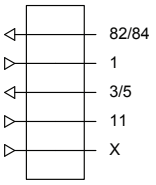


Diagram "B"

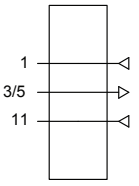


Diagram "C"

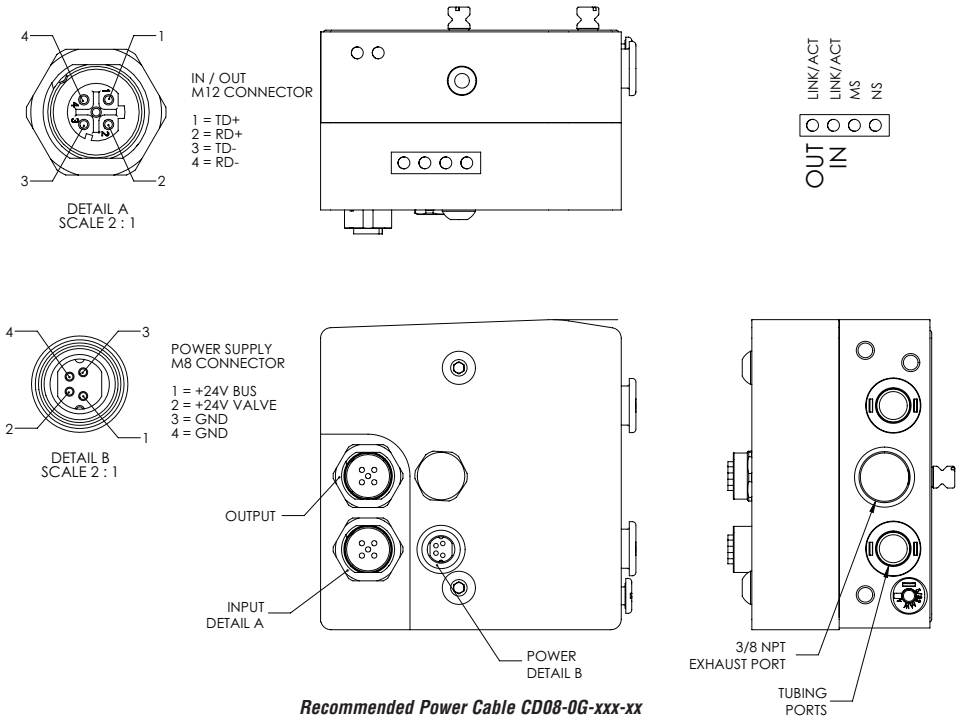
Compact Modular Valve - End Plates						
Item	***Part No.***	***Price***	***Description***	***Diagram***	***Operating Pressure***	***Weight (lbs)***
	***CMV-E1X-4X***	$549.00	NITRA pneumatic EtherNet/IP enabled modular plate, left supply/exhaust end, Cv=12.4, 3/8in push-to-connect tubing inlet(s), 3/8in female NPT exhaust(s), anodized aluminum body.	A	45-100 psi	TBA
	***CMV-E2X-4X***	$555.00	NITRA pneumatic EtherNet/IP enabled modular plate, left supply/exhaust end, Cv=12.4, (2) 3/8in push-to-connect tubing inlet(s), 3/8in female NPT exhaust(s), 5/32in (4mm) push-to-connect tubing pilot(s), anodized aluminum body.	B	vacuum-145 psi	TBA
	***CMV-C1X-4X***	$56.00	NITRA pneumatic modular plate, left supply/exhaust end, Cv=12.4, 3/8in push-to-connect tubing inlet(s), 3/8in female NPT exhaust(s), anodized aluminum body.	A	45-100 psi	0.8
	***CMV-C2X-4X***	$58.00	NITRA pneumatic modular plate, left supply/exhaust end, Cv=12.4, (2) 3/8in push-to-connect tubing inlet(s), 3/8in female NPT exhaust(s), 5/32in (4mm) push-to-connect tubing pilot(s), anodized aluminum body.	B	vacuum-145 psi	0.8
	***CMV-C2X-5X***	$70.00	NITRA pneumatic modular plate, left supply/exhaust end, Cv=16.6, (2) 1/2in push-to-connect tubing inlet(s), 3/8in female NPT exhaust(s), 5/32in (4mm) push-to-connect tubing pilot(s), anodized aluminum body.	B	vacuum-145 psi	0.8
	***CMV-C3X-5X***	$56.00	NITRA pneumatic modular plate, right supply/exhaust end, Cv=16.6, (2) 1/2in push-to-connect tubing inlet(s), 3/8in female NPT exhaust(s), anodized aluminum body.	C	vacuum-145 psi	1.4
	***CMV-C4X***	$24.00	NITRA pneumatic modular plate, right blind end, anodized aluminum body.	N/A	N/A	0.5

Compact Modular Valves

EtherNet/IP Enabled Modular End Plate Specifications	
Field Buses	EtherNet/IP (IO/Explicit Messaging) - 10/100 Mbit/s Half-duplex - Full-duplex Supports Auto-Negotiation
Factory Settings	Module name CMV series - Address IP 192.168.192.30
Addressing	Software DHCP/BOOTP
Voltage Range	24VDC ±10%
Maximum Number of Solenoids (out)	16
Maximum Number of Valves	16
ICC Bus Supply Current	Nominal Icc 120mA Instantaneous Icc (< 2ms) 450mA
Maximum Absorption of a Valve Distribution (black with 16 mono-stable valves)	Nominal Icc with 120mA OFF valves Nominal Icc with 580mA ON valves
Protections	Module protected against overload and polarity reversal. Outputs protected against overloads and short-circuits.
Connections	Field bus: (2) M12 Female, D-coded, internal switch Supply: M8 4-pin
Data Bit Value	0 = not enabled 1 = enabled
Output Status in the Absence of Communication	Not enabled
Approvals	N/A

Note: For EtherNet/IP communication use a quality Cat5e straight through Ethernet cable such as AutomationDirect CAB-ETH-M0x patch cables. See our Communication Products section online at www.AutomationDirect.com

Wiring and Ports

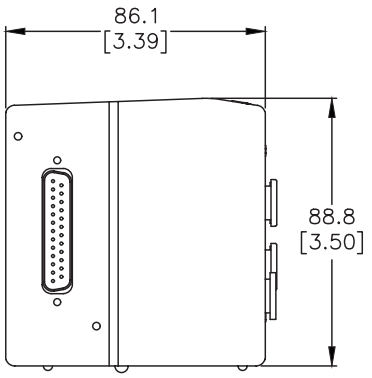


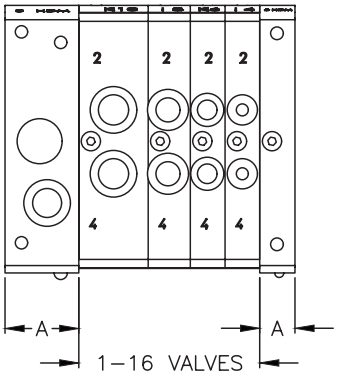
Recommended Power Cable CD08-0G-xxx-xx

Compact Modular Valves

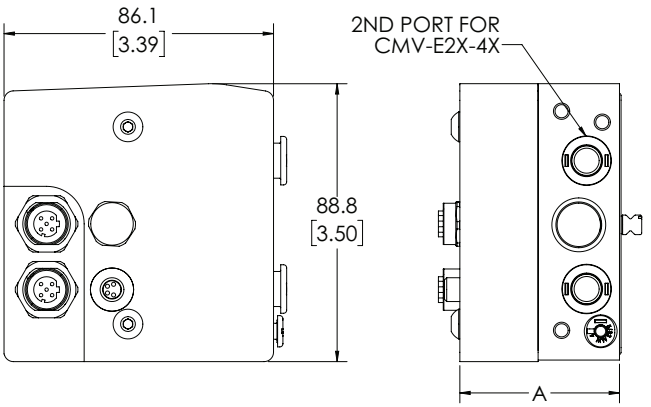
Dimensions

mm [inches]





DIM TABLE	
PART NO.	DIM A
CMV–E1X–4X	51.0 [2.01]
CMV–E2X–4X	51.0 [2.01]
CMV–C1X–4X	24.5 [0.96]
CMV–C2X–4X	24.5 [0.96]
CMV–C2X–5X	24.5 [0.96]
CMV–C3X–5X	32.0 [1.25]
CMV–C4X	11.7 [0.46]



See our website www.AutomationDirect.com for complete Engineering drawings.

Compact Modular Valves

Features:

- Mix valve sizes as needed
- (2) 3/2, 5/2 and 5/3 valves available
- Single solenoid spring return or dual solenoids per valve
- Up to 16 valves (16 solenoids max) per manifold
- Locking manual operator
- IP65
- NBR / Buna-N gaskets and O-ring
- 2 year warranty

Diagram "A"
(2) 3-way, 2-pos, Single Solenoids, N.C.

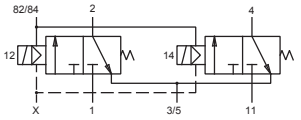


Diagram "B"
(2) 3-way, 2-pos, Single Solenoids, N.O.

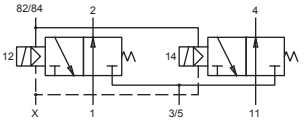


Diagram "C"
(2) 3-way, 2-pos, Single Solenoids, N.C./N.O.

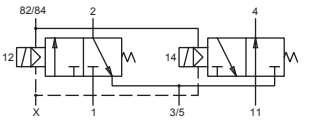


Diagram "D"
5-way, 2-pos, Single Solenoid

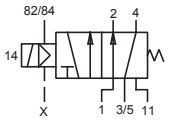


Diagram "E"
5-way, 2-pos, Double Solenoid

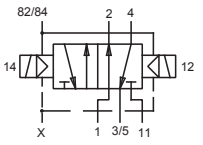
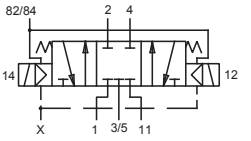


Diagram "F"
5-way, 3-pos, Double Solenoid, Center Closed



Compact Modular Valve Specifications

Model	CMV-A1L-1A	CMV-A2L-1A	CMV-A3L-1A	CMV-B1L-1A	CMV-B2L-1A	CMV-B3L-1A	CMV-A1L-2A	CMV-A2L-2A	CMV-A3L-2A	CMV-B1L-2A	CMV-B2L-2A	CMV-B3L-2A
Price	$99.00	$99.00	$99.00	$70.00	$87.00	$98.00	$101.00	$99.00	$101.00	$71.00	$98.00	$99.00
Weight (lbs)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Valve Type	(2) 3-way 2-position N.C. single solenoids	(2) 3-way 2-position N.O. single solenoids	(2) 3-way 2-position N.O./N.C. single solenoids	5-way 2-position single solenoid	5-way 2-position double solenoid	5-way 3-position double solenoid center closed	(2) 3-way 2-position N.C. single solenoids	(2) 3-way 2-position N.O. single solenoids	(2) 3-way 2-position N.O./N.C. single solenoids	5-way 2-position single solenoid	5-way 2-position double solenoid	5-way 3-position double solenoid center closed
Acting	Internally Piloted											
Diagram	A	B	C	D	E	F	A	B	C	D	E	F
Port Size	In=3/8" Out=5/32" or 4mm						In=3/8" Out=1/4"					
Orifice Size*	Cv=0.2						Cv=0.5					Cv=0.3
Fluid	Air (to be filtered by 40µ filter element)											
Nom Pressure	Vacuum - 145 psi max											
Voltage ±10%	24VDC											
Power Consumption	0.9W (per solenoid)											
Max Frequency	8 cycles/sec											
Insulation	F class (155°C / 311°F max coil only)											
Min Response	8ms				20ms		8ms				20ms	
Temperature	-10-60°C [14-140°F]											
Lubrication	Filtered air without lubrication; lubrication, if used, must be continuous											
Protection	IP65 (when using NITRA cables)											
Body	Aluminum with technolopolymer (Celcon) shell											
Agency Approvals	None											

** Cv test conditions of 90psi inlet, ΔP = 14.5 psi, temperature 70°F (21.1°C)*

NITRA PNEUMATICS

Compact Modular Valves

Compact Modular Valve Specifications									
Model	CMV-A1L-3A	CMV-A2L-3A	CMV-A3L-3A	CMV-B1L-3A	CMV-B2L-3A	CMV-B3L-3A	CMV-A1L-3B	CMV-A2L-3B	CMV-A3L-3B
Price	$103.00	$103.00	$103.00	$74.00	$101.00	$103.00	$149.00	$149.00	$149.00
Weight (lbs)	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.3	0.3
Valve Type	(2) 3-way 2-position N.C. single solenoids	(2) 3-way 2-position N.O. single solenoids	(2) 3-way 2-position N.O./N.C. single solenoids	5-way 2-position single solenoid	5-way 2-position double solenoid	5-way 3-position double solenoid center closed	(2) 3-way 2-position N.C. single solenoids	(2) 3-way 2-position N.O. single solenoids	(2) 3-way 2-position N.O./N.C. single solenoids
Acting	Internally Piloted								
Diagram	A	B	C	D	E	F	A	B	C
Port Size	In=3/8" Out=5/16" or 8mm								
Orifice Size*	Cv=0.65					Cv=0.3	Cv=1.0		
Fluid	Air (to be filtered by 40µ filter element)								
Nom Pressure	45-100 psi [3.1-6.9 bar]								
Voltage ± 10%	24VDC								
Power Consumption	0.9W (per solenoid)								
Max Frequency	8 cycles/sec								
Insulation	F class (155°C / 311°F max coil only)								
Min Response	8ms				20ms		8ms		
Temperature	-10-60°C [14-140°F]								
Lubrication	Filtered air without lubrication; lubrication, if used, must be continuous								
Protection	IP65 (when using NITRA cables)								
Body	Aluminum with technolopolymer (Celcon) shell								
Agency Approvals	None								

Compact Modular Valve Specifications									
Model	CMV-B1L-3B	CMV-B2L-3B	CMV-B3L-3B	CMV-A1L-4A	CMV-A2L-4A	CMV-A3L-4A	CMV-B1L-4A	CMV-B2L-4A	CMV-B3L-4A
Price	$118.00	$138.00	$145.00	$144.00	$144.00	$144.00	$119.00	$134.00	$140.00
Weight (lbs)	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Valve Type	5-way 2-position single solenoid	5-way 2-position double solenoid	5-way 3-position double solenoid center closed	(2) 3-way 2-position N.C. single solenoids	(2) 3-way 2-position N.O. single solenoids	(2) 3-way 2-position N.O./N.C. single solenoids	5-way 2-position single solenoid	5-way 2-position double solenoid	5-way 3-position double solenoid center closed
Acting	Internally Piloted								
Diagram	D	E	F	A	B	C	D	E	F
Port Size	In=3/8" Out=5/16" or 8mm			In=3/8" Out=3/8"					
Orifice Size*	Cv=1.0		Cv=0.5	Cv=1.2					Cv=0.5
Fluid	Air (to be filtered by 40µ filter element)								
Nom Pressure	Vacuum - 145 psi (vacuum - 10 bar) valve supply / 45-100 psi (3-7 bar) pilot supply								
Voltage ± 10%	24VDC								
Power Consumption	0.9W (per solenoid)								
Max Frequency	8 cycles/sec								
Insulation	F class (155°C / 311°F max coil only)								
Min Response	8ms	20ms		8ms				20ms	
Temperature	-10-60°C [14-140°F]								
Lubrication	Filtered air without lubrication; lubrication, if used, must be continuous								
Protection	IP65 (when using NITRA cables)								
Body	Aluminum with technolopolymer (Celcon) shell								
Agency Approvals	None								

Cv test conditions of 90psi inlet, ΔP = 14.5 psi, temperature 70°F (21.1°C)

Compact Modular Valves

Compact Modular Valves - Intermediate Modules

In applications with a large number of high flow valves, an intermediate through module (CMV-D1X-3X) provides additional air inlets. If dual pressures are desired in a manifold, an intermediate blind module (CMV-D2X-3X) provides an independent supply to valves to its right while blocking the main supply from the left. For applications requiring quicker exhaust on some valves, an intermediate exhaust module (CMV-D3X-3X) provides a dedicated exhaust for valves to its right while blocking exhaust from valves to its left.

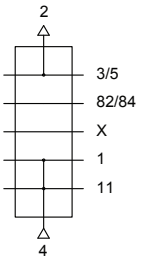


Diagram "A"

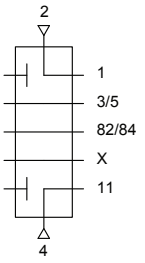


Diagram "B"

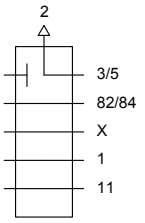
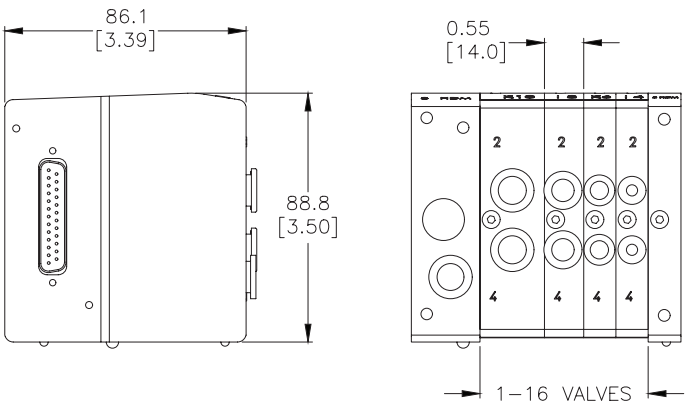


Diagram "C"

Compact Modular Valve - Intermediate Modules					
Item	***Part No.***	***Price***	***Description***	***Diagram***	***Weight (lbs)***
	***CMV-D1X-3X***	$51.00	NITRA pneumatic modular plate, intermediate, through, (2) 5/16 inch (8 mm) push-to-connect tubing inlet port(s), Cv=0.65, reinforced technopolymer body. For use with CMV series solenoid valves.	A	0.3
	***CMV-D2X-3X***	$49.00	NITRA pneumatic modular plate, intermediate, blind, (2) 5/16 inch (8 mm) push-to-connect tubing inlet port(s), Cv=0.65, reinforced technopolymer body. For use with CMV series solenoid valves.	B	0.3
	***CMV-D3X-3X***	$46.00	NITRA pneumatic modular plate, intermediate, exhaust, 5/16 inch (8 mm) push-to-connect tubing exhaust port, Cv=0.65, reinforced technopolymer body. For use with CMV series solenoid valves.	C	0.3

Dimensions

mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.

NITRA PNEUMATICS

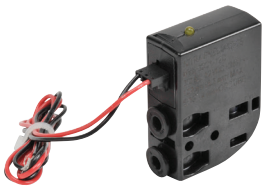
Compact Modular Valves

Compact Modular Valve Accessories				
Item	***Part No.***	***Price***	***Description***	***Weight (lbs)***
	***CMV-SW-CD***	$10.00	NITRA configuration software, CD. For use with CMV series EtherNet/IP modules. OS compatibility: Windows XP, 32 bit Windows 7, 64 bit Windows 8, 32 & 64 bit Win 8.1, 32 & 64 bit Win 10, 64 bit	0.1
	***CMV-SW-USB***	$10.00	NITRA configuration software, USB. For use with CMV series EtherNet/IP modules. OS compatibility: Windows XP, 32 bit Windows 7, 64 bit Windows 8, 32 & 64 bit Win 8.1, 32 & 64 bit Win 10, 64 bit	0.1
	***CMV-ACC01***	$30.00	NITRA pigtail cable, 25-pin D-sub female connector, IP65, 45 degree cable entry, 28AWG, 1 meter (3.3 ft.) length	0.4
	***CMV-ACC02***	$40.00	NITRA pigtail cable, 25-pin D-sub female connector, IP65, 45 degree cable entry, 28AWG, 2.5 meter (8.2 ft.) length	0.9
	***CMV-ACC03***	$54.00	NITRA pigtail cable, 25-pin D-sub female connector, IP65, 45 degree cable entry, 28AWG, 5 meter (16.4 ft.) length	1.6
	***CMV-ACC04***	$7.00	NITRA pneumatic mounting bracket, attaches CMV series valve assemblies to 35mm DIN rail. Includes mounting screws.	0.1
	***CMV-ACC06***	$2.50	NITRA pneumatic release tool, for push-to-connect fittings, tube diameters 1/8 inch through 3/8 inch	0.1
	***CMV-ACC07***	$1.25	NITRA pneumatic release tool, for push-to-connect fittings, tube diameters 5/32 inch through 1/2 inch	0.1
	***CMV-ACC08***	$2.75	NITRA pneumatic screw set, replacement, for CMV series solenoid valves. Includes (1) M4-0.7x5 cone point screw and (1) M4-0.7x34 cone point screw.	0.1
	***CMV-ACC09***	$5.00	NITRA pneumatic gasket, replacement, for CMV series solenoid valves. 5 per package.	0.1

Compact Modular Valves - Accessories

Compact Modular Valve Accessories				
Item	***Part No.***	***Price***	***Description***	***Weight (lbs)***
	***CMV-ACC10***	$4.25	NITRA pneumatic molded O-ring, replacement, for CMV series solenoid valves. 5 per package.	0.1
	***CMV-ACC11***	$15.00	NITRA connector, 25-pin female D-sub, 45-degree cable entry, accepts 0.19 to 0.39 inch diameter cable, accepts wire size 22 - 18 AWG, solder connections, IP65. For use with CMV series solenoid valves.	0.2
	***CMV-ACC12***	$2.50	NITRA blank marking tag, replacement. Package of 10. For use with CMV cable connectors.	0.1

Pneumatic Directional Control Solenoid Valves – BVS-3 Series



BVS Series Solenoid with Leads



BVS Series Solenoid with DIN 43650 Form C

NITRA pneumatic BVS-3 series modular solenoid valves are body ported 3-port (3-way) poppet valves available in 2-position, normally open or normally closed configurations. Most models have removable flying leads that can be used with BVM series manifolds. Two models are available with an 8 mm Micro DIN connector. Units are only DIN rail mountable when used with BVM series manifolds.

Features

- Body ported, 3-port (3-way) poppet valves
- 5/32" (4mm) push-to-connect ports
- Flow coefficients (Cv) from 0.02 to 0.05
- 2-position, single solenoid spring return
- Normally open or normally closed
- 12VDC, 24VDC or 120VAC solenoid coils with LED status indication & surge suppression diode
- Flying leads or 8mm DIN connection
- Pushbutton manual operator
- 2-year warranty

Valve Symbols

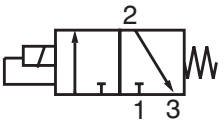


Diagram A 3/2 NC

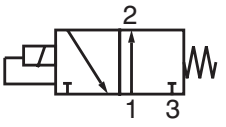


Diagram B 3/2 NO

BVS (3-port, 2-position) Series Specifications

Model	BVS-32C1-12D	BVS-32A1-24D	BVS-32C1-24D	BVS-32C1-120A	BVS-32C2-12D	BVS-32C2-24D	BVS-33C1-12D	BVS-33C1-24D
Price	$29.00	$29.00	$29.00	$31.00	$29.00	$29.00	$29.00	$29.00
Weight (lbs)	0.1							
Valve Type	Normally Closed	Normally Open	Normally Closed	Normally Closed	Normally Closed	Normally Closed	Normally Closed	Normally Closed
Acting	Direct Solenoid Poppet							
Diagram	A	B	A	A	A	A	A	A
Port Size	5/32" (4mm) Push-to-Connect							
Orifice Size	0.9 mm (Cv=0.02)						1.4 mm (Cv=0.05)	
Fluid	Air or Inert Gas (to be filtered by 40µ filter element)							
Min. / Max. Pressure	0 - max 120psi (8.3 bar)	0 - max 90psi (6.2 bar)	0 - max 120psi (8.3 bar)				0 - max 30psi (2.1 bar)	
Vacuum	28 in. Hg							
Body	Glass Reinforced Thermoplastic							
Voltage	12VDC	24VDC	24VDC	120VAC	12VDC	24VDC	12VDC	24VDC
Inrush Power	1.6 W	1.4 W	1.4 W	1.7 W	1.6 W	1.4 W	1.6 W	1.4 W
Continuous ON Power	1.3 W	1.2 W	1.2 W	1.5 W	1.3 W	1.2 W	1.3 W	1.2 W
Expected Life	50,000,000 cycles at max 3 cycles/second	10,000,000 cycles at max 3 cycles/second	50,000,000 cycles at max 3 cycles/second					
Wiring	Removable 18" Flying Leads				DIN 43650 Form C		Removable 18" Flying Leads	
Response Time	0.01 sec							
Temperature - Operation and Storage	0~120°F (-18~49°C)							
Lubrication	Not Required							
Protection	n/a				IP 65		n/a	

Pneumatic Directional Control Solenoid Valves – BVS-3 Series Low Current



BVS Series Solenoid with Leads



BVS Series Solenoid with DIN 43650 Form C

NITRA pneumatic BVS-3 series modular solenoid valves are body ported 3-port (3-way) poppet valves available in 2-position, normally open or normally closed configurations. Most models have removable flying leads that can be used with BVM series manifolds. Four models are available with an 8 mm Micro DIN connector. Units are only DIN rail mountable when used with BVM series manifolds.

Features

- Body ported, 3-port (3-way) poppet valves
- 5/32" (4mm) push-to-connect ports
- Flow coefficients (Cv) of 0.02
- 2-position, single solenoid spring return
- Normally open or normally closed
- 3VDC, 5VDC, 12VDC or 24VDC solenoid coils with LED status indication & surge suppression diode
- Flying leads or 8mm DIN connection
- Pushbutton manual operator
- 2-year warranty

Valve Symbols

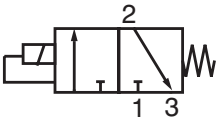


Diagram A 3/2 NC

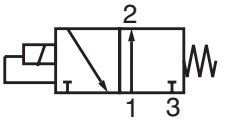


Diagram B 3/2 NO

BVS (3-port, 2-position) Low Current Series Specifications								
Model	**BVS-32A1-3DL**	**BVS-32A1-5DL**	**BVS-32A1-12DL**	**BVS-32A1-24DL**	**BVS-32C1-3DL**	**BVS-32C1-5DL**	**BVS-32C1-12DL**	**BVS-32C1-24DL**
Price	$28.00	$28.00	$28.00	$28.00	$28.00	$28.00	$28.00	$28.00
Weight (lbs)	0.1							
Valve Type	Normally Open				Normally Closed			
Acting	Direct Solenoid Poppet							
Diagram	B				A			
Port Size	5/32" (4mm) Push-to-Connect							
Orifice Size	0.9 mm (Cv=0.02)							
Fluid	Air or Inert Gas (to be filtered by 40µ filter element)							
Min. / Max. Pressure	0 - max 37psi (2.5 bar)				0 - max 45psi (3bar)			
Vacuum	28 in. Hg							
Body	Glass Reinforced Thermoplastic							
Voltage	3VDC	5VDC	12VDC	24VDC	3VDC	5VDC	12VDC	24VDC
Inrush Power	0.56 W	0.50 W	0.56 W	0.53 W	0.56 W	0.50 W	0.56 W	0.53 W
Continuous ON Power	0.51 W	0.47 W	0.51 W	0.49 W	0.51 W	0.47 W	0.51 W	0.49 W
Expected Life	50,000,000 cycles at max 3 cycles/second							
Wiring	Removable 18" Flying Leads							
Response Time	0.01 sec							
Temperature - Operation and Storage	0~120°F (-18~49°C)							
Lubrication	Not Required							
Protection	n/a							

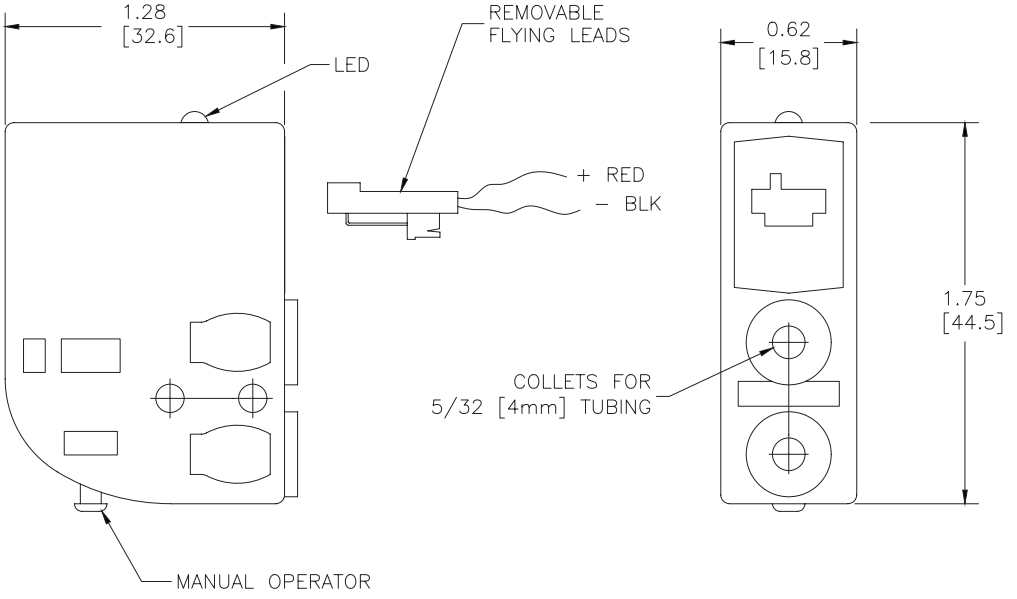
Pneumatic Directional Control Solenoid Valves – BVS-3 Series Low Current

BVS (3-port, 2-position) Low Current Series Specifications								
Model	BVS-32A2-3DL	BVS-32A2-5DL	BVS-32A2-12DL	BVS-32A2-24DL	BVS-32C2-3DL	BVS-32C2-5DL	BVS-32C2-12DL	BVS-32C2-24DL
Price	$28.00	$28.00	$28.00	$28.00	$28.00	$28.00	$28.00	$28.00
Weight (lbs)	0.1							
Valve Type	Normally Open				Normally Closed			
Acting	Direct Solenoid Poppet							
Diagram	B				A			
Port Size	5/32" (4mm) Push-to-Connect							
Orifice Size	0.9 mm (Cv=0.02)							
Fluid	Air or Inert Gas (to be filtered by 40µ filter element)							
Min. / Max. Pressure	0 - max 37psi (2.5 bar)				0 - max 45psi (3bar)			
Vacuum	28 in. Hg							
Body	Glass Reinforced Thermoplastic							
Voltage	3VDC	5VDC	12VDC	24VDC	3VDC	5VDC	12VDC	24VDC
Inrush Power	0.56 W	0.50 W	0.56 W	0.53 W	0.56 W	0.50 W	0.56 W	0.53 W
Continuous ON Power	0.51 W	0.47 W	0.51 W	0.49 W	0.51 W	0.47 W	0.51 W	0.49 W
Expected Life	50,000,000 cycles at max 3 cycles/second							
Wiring	DIN 43650 Form C							
Response Time	0.01 sec							
Temperature - Operation and Storage	0~120°F (-18~49°C)							
Lubrication	Not Required							
Protection	IP 65							

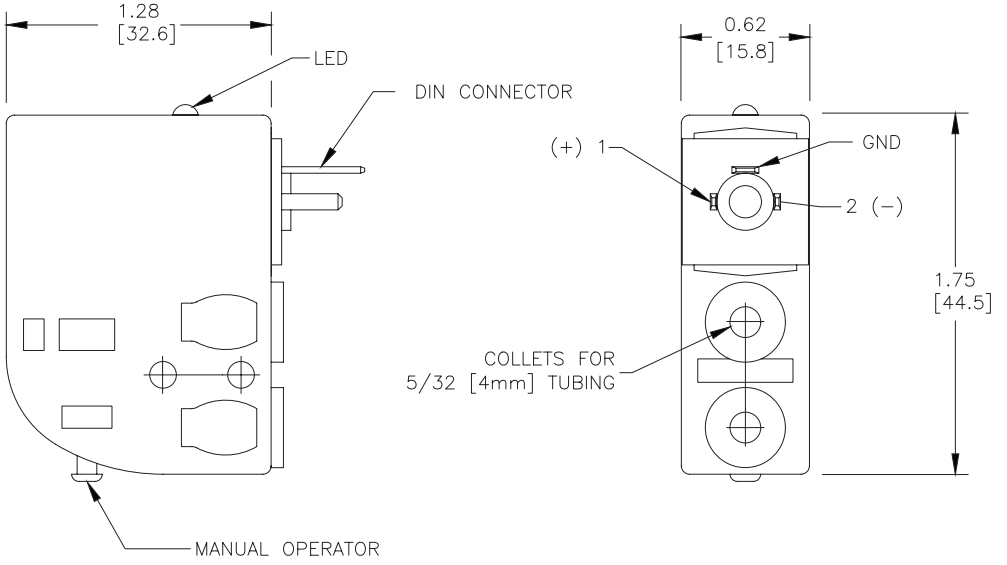
Pneumatic Directional Control Solenoid Valves – BVS-3 Series Dimensions

Dimensions

inches [mm]



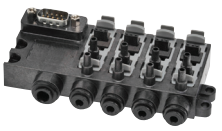
BVS w/Removable Leads



BVS w/DIN 43650 Form C

See our website www.AutomationDirect.com for complete Engineering drawings.

Manifolds for Modular Solenoid Valves – BVM-3 Series



BVM - 4-Station



BVM - 8-Station

NITRA pneumatic BVM-3 series modular manifolds simplify the mounting and wiring of BVS-3 series solenoid valves*. Made of sturdy glass reinforced thermoplastic with DIN rail mounting clips included, they are available in 4 and 8-station models. Push-to-connect inlet and out connections and a 9-pin D-sub connector allow quick and easy tubing and wiring.

Features

- No tools required to install/remove valves
- 2, 3, 4 or 8-station manifolds available
- 6mm or 1/4" tube inlets
- 35mm DIN rail mounting clips included
- 9-pin D-sub connector for easy wiring
- 2-year warranty

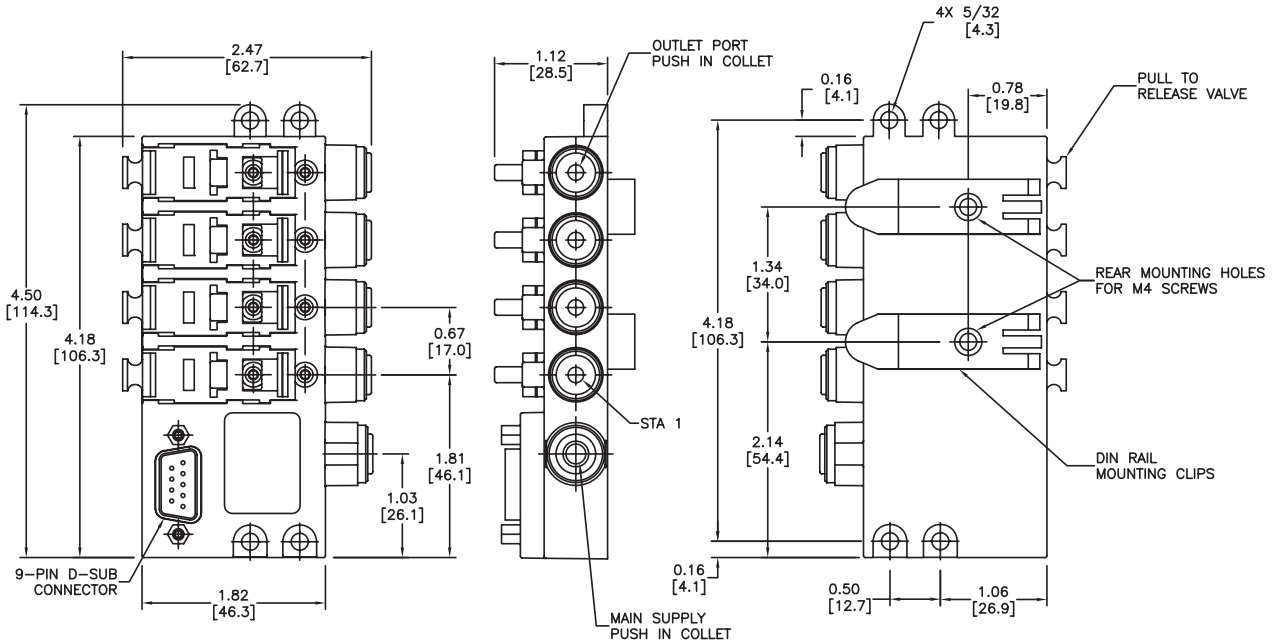
BVM Series Manifolds						
Part No.	***Stations***	***Inlet***	***Outlet***	***Connection***	***Price***	***Weight (lbs)***
BVM-3425	4	1/4"	5/32" (4mm)	9-pin D-sub	$56.00	0.3
BVM-346M	4	6mm			$54.00	0.3
BVM-3825	8	1/4"			$87.00	0.5
BVM-386M	8	6mm			$87.00	0.5

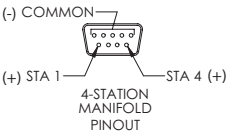
**** Works with BVS series valves with flying leads ONLY. Does not accept DIN connector valves***

Dimensions

inches [mm]

4-Station Manifold





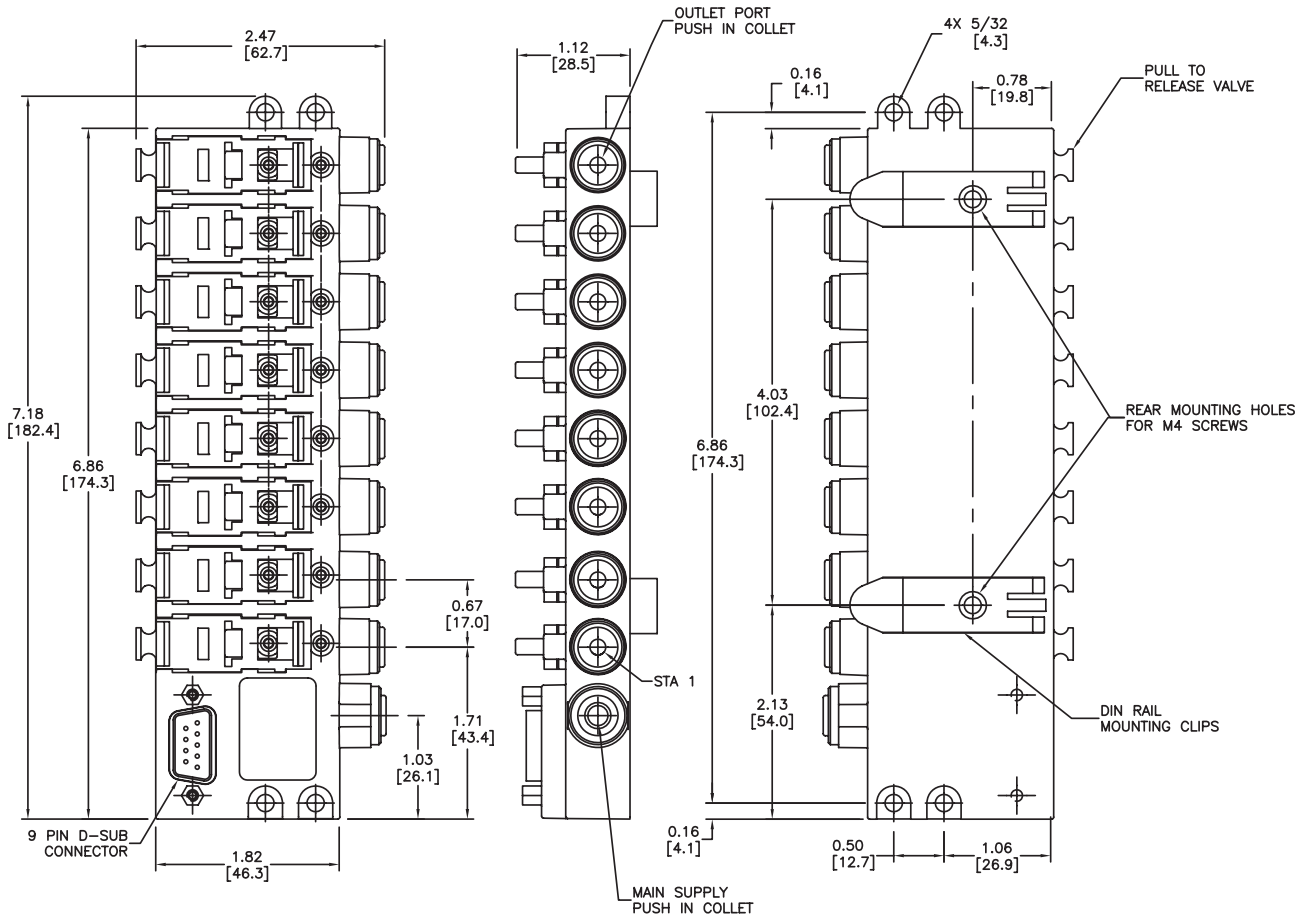
See our website www.AutomationDirect.com for complete Engineering drawings.

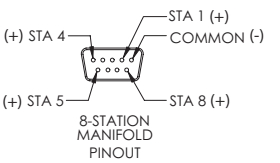
Manifolds for Modular Solenoid Valves – BVM-3 Series

Dimensions

inches [mm]

8-Station Manifold





See our website www.AutomationDirect.com for complete Engineering drawings.

Pneumatic Directional Control Solenoid Valves – BVS Series - Accessories

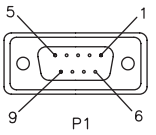
Accessories

BVM Series Manifold Accessories			
Part No.	***Description***	***Price***	***Weight (lbs)***
BVM-3BP	Blanking plug, fiberglass reinforced plastic. For use with BVM-3x manifolds.	$7.50	0.1
ZL-DB9F-CBL-2P	ZIPLink pigtail cable with 9-pin D-sub female connector, 28AWG, 2.0 meter (6.6 ft) length	$7.25	0.3
ZL-DB9F-CBL-5P	ZIPLink pigtail cable with 9-pin D-sub female connector, 28AWG, 5.0 meter (16.4 ft) length	$13.50	0.5



BVM-3BP

ZL-DB9F-CBL-xP Pinout



pin out

P1	P2	for BVM Series 4-station man	for BVM Series 8-station man
1	black	N/A	station 4
2	brown	N/A	station 3
3	red	N/A	station 2
4	orange	N/A	station 1
5	yellow	common	common
6	green	station 1	station 5
7	blue	station 2	station 6
8	violet	station 3	station 7
9	grey	station 4	station 8



ZL-DB9F-CBL-xP





See solenoid valve cables and connectors section



Above photo shows an assembled BVM Series manifold with BVS Series Solenoids and BVM blanking plug

Note: Manifold must have a BVS valve (flying leads ONLY) or BVM-3BP blanking plug installed in each station for proper operation.

Pneumatic Directional Control Solenoid Valves – BVS-4 Series



BVS Series Solenoid with Leads



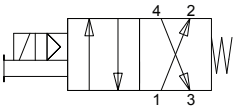
BVS Series Solenoid with DIN 43650 Form C

NITRA pneumatic BVS-4 series modular solenoid valves are body ported 4-port (4-way) spool valve models have removable flying leads or an 8 mm Micro DIN connector. Units are only DIN rail mountable when used with BVM series manifolds.

Features

- Body ported, 4-port (4-way) spool valves
- 1/4" (6mm) push-to-connect ports
- Flow coefficients (Cv) 0.8
- 2-position, single solenoid spring return
- 12VDC, 24VDC, 24VAC or 120VAC solenoid coils with LED status indication & surge suppression diode
- Flying leads or 8mm DIN connection
- Pushbutton manual operator
- 2-year warranty

Valve Symbol



BVS (4-port, 2-position) 4 Series Specifications								
Model	***BVS-4251-12D***	***BVS-4252-12D***	***BVS-4251-24D***	***BVS-4252-24D***	***BVS-4251-24A***	***BVS-4252-24A***	***BVS-4251-120A***	***BVS-4252-120A***
Price	$46.00	$48.00	$46.00	$48.00	$48.00	$51.00	$47.00	$51.00
Weight (lbs)	0.2							
Acting	Spool (2-Position)							
Port Size	1/4" Push-to-Connect							
Orifice Size	0.2" [5.0 mm] (Cv = 0.8)							
Fluid	Air or Inert Gas (to be filtered by 40µ filter element)							
Min. / Max. Pressure	30psi (2bar) - 120psi (8.3 bar)							
Vacuum	Air pilot models can be used in vacuum applications with external air signal to pilot ports.							
Body	Glass Reinforced Thermoplastic							
Voltage	12VDC		24VDC		24VAC		120VAC	
Inrush Power	1.6 W		1.4 W		1.4 VA		1.7 VA	
Continuous ON Power	1.3 W		1.2 W		1.2 VA		1.5 VA	
Expected Life	20,000,000 cycles at max 3 cycles/second							
Wiring	Removable 18" Flying Leads	DIN 43650 Form C	Removable 18" Flying Leads	DIN 43650 Form C	Removable 18" Flying Leads	DIN 43650 Form C	Removable 18" Flying Leads	DIN 43650 Form C
Response Time	0.016 sec							
Temperature - Operation and Storage	0~120°F (-18~49°C)							
Lubrication	Not Required							
Protection	IP 65							

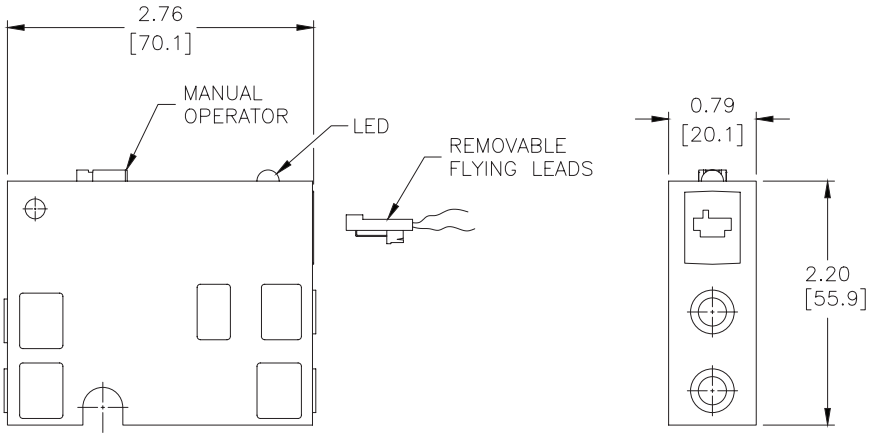
Pneumatic Directional Control Solenoid Valves – BVS-4 Series

BVS (4-port, 2-position) 4 Series Specifications								
Model	BVS-46M1-12D	BVS-46M2-12D	BVS-46M1-24D	BVS-46M2-24D	BVS-46M1-24A	BVS-46M2-24A	BVS-46M1-120A	BVS-46M2-120A
Price	$46.00	$48.00	$46.00	$48.00	$49.00	$51.00	$47.00	$51.00
Weight (lbs)	0.2							
Acting	Spool (2-Position)							
Port Size	6mm Push-to-Connect							
Orifice Size	0.2" [5.0 mm] (Cv = 0.8)							
Fluid	Air or Inert Gas (to be filtered by 40µ filter element)							
Min. / Max. Pressure	30psi (2bar) - 120psi (8.3 bar)							
Vacuum	Air pilot models can be used in vacuum applications with external air signal to pilot ports.							
Body	Glass Reinforced Thermoplastic							
Voltage	12VDC		24VDC		24VAC		120VAC	
Inrush Power	1.6 W		1.4 W		1.4 VA		1.7 VA	
Continuous ON Power	1.3 W		1.2 W		1.2 VA		1.5 VA	
Expected Life	20,000,000 cycles at max 3 cycles/second							
Wiring	Removable 18" Flying Leads	DIN 43650 Form C	Removable 18" Flying Leads	DIN 43650 Form C	Removable 18" Flying Leads	DIN 43650 Form C	Removable 18" Flying Leads	DIN 43650 Form C
Response Time	0.016 sec							
Temperature - Operation and Storage	0~120°F (-18~49°C)							
Lubrication	Not Required							
Protection	IP 65							

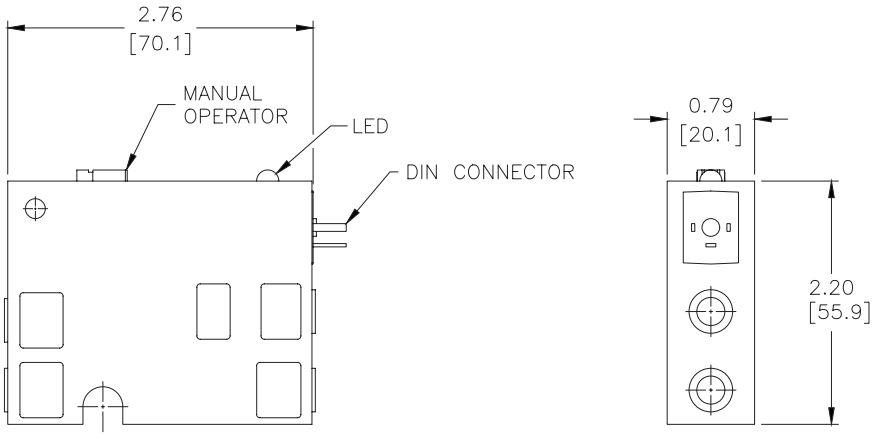
Pneumatic Directional Control Solenoid Valves – BVS-4 Series

Dimensions

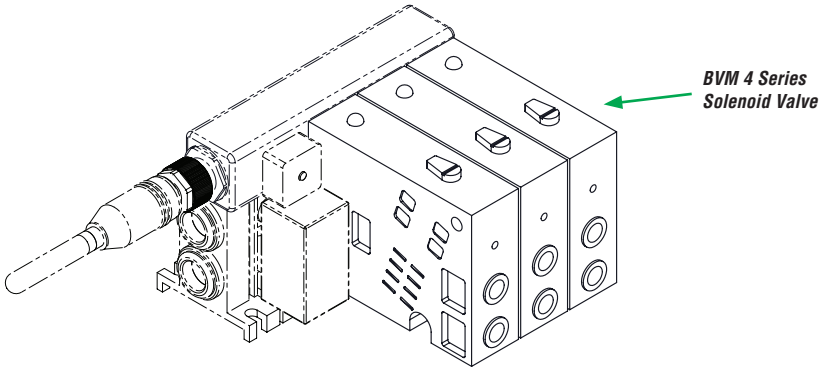
inches [mm]



BVS 4 Series w/Removable Leads



BVS 4 Series w/DIN 43650 Form C



See our website www.AutomationDirect.com for complete Engineering drawings.

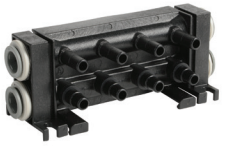
Manifolds for Modular Solenoid Valves – BVM-4 Series



BVM - 2-Station



BVM - 3-Station



BVM - 4-Station

NITRA pneumatic BVM-4 series modular manifolds simplify the mounting of BVS-4 series solenoid valves. Made of sturdy glass reinforced thermoplastic with DIN rail mounting clips included, they are available in 2, 3 and 4-station models. Push-to-connect inlet and outlet ports allow quick and easy tubing connections.

Features

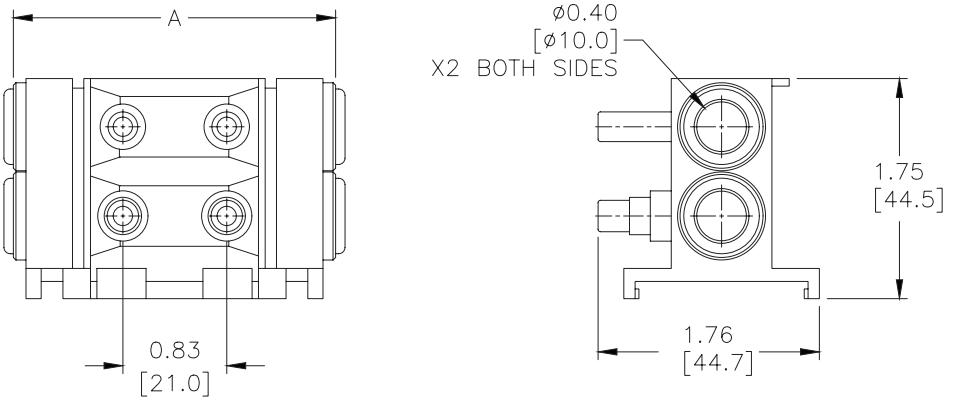
- No tools required to install/remove valves
- 2, 3 or 4-station manifolds available
- 3/8" or 10mm tube inlets and outlets
- 35 mm DIN rail mounting clips included
- 2-year warranty

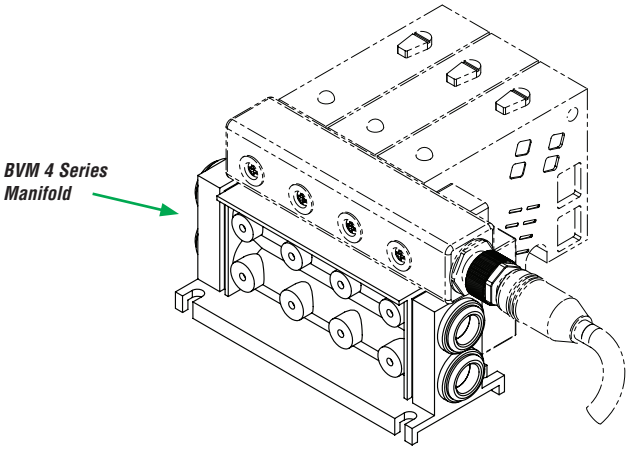
BVM Series Manifolds						
Part No.	*Stations*	*Inlet*	*Outlet*	*Dimension "A" in [mm]*	*Price*	*Weight (lbs)*
BVM-4225	2	3/8"	3/8"	2.71 [68.9]	$22.00	0.3
BVM-426M	2	10mm	10mm		$22.00	0.3
BVM-4325	3	3/8"	3/8"	3.54 [89.9]	$24.00	0.3
BVM-436M	3	10mm	10mm		$24.00	0.3
BVM-4425	4	3/8"	3/8"	4.37 [110.9]	$26.00	0.3
BVM-446M	4	10mm	10mm		$26.00	0.3

Dimensions

inches [mm]

2-Station Manifold





See our website www.AutomationDirect.com for complete Engineering drawings.

BVS-4 Series Control Distribution Blocks



Part No. BVPS-4

NITRA pneumatic control distribution blocks are a convenient way to connect a bank of valves to a controller. Replace a bundle of solenoid cables with one 5-pole M12 cable. Each block matches up with a manifold of two to four stations.

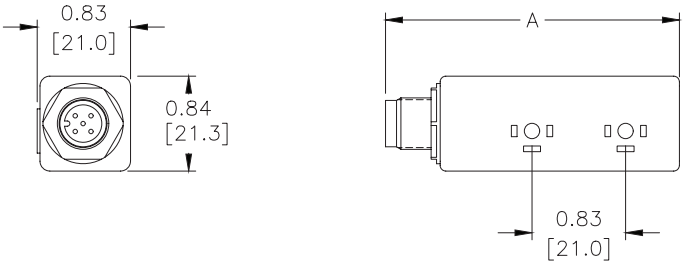
Features

- Single 5-pole M12 wiring connection
- IP 65 rating
- 2 to 4 stations

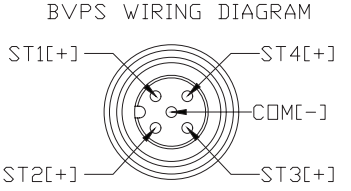
BVS-4 Series Control Distribution Blocks				
Part No.	***Description***	***Dimension "A" in [mm]***	***Price***	***Weight (lbs)***
BVPS-2	NITRA control distribution block, AC/DC, 2 stations, M12 connector. For use with BVS-4 series valves.	2.60 [66.0]	$44.00	0.2
BVPS-3	NITRA control distribution block, AC/DC, 3 stations, M12 connector. For use with BVS-4 series valves.	3.43 [87.0]	$66.00	0.3
BVPS-4	NITRA control distribution block, AC/DC, 4 stations, M12 connector. For use with BVS-4 series valves.	4.25 [108.0]	$88.00	0.3

Dimensions

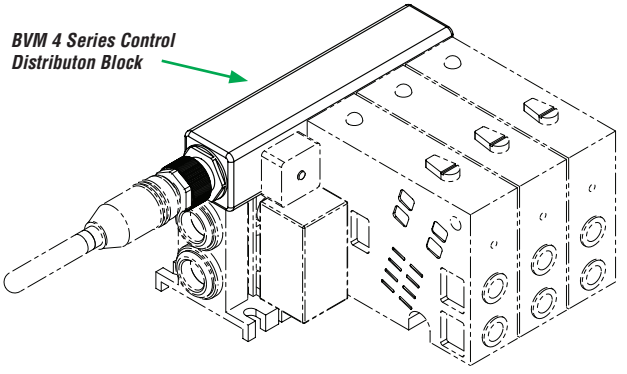
inches [mm]



Wiring







For the BVS-4 Control Distribution Block use one of the following cable part numbers:

7000-12241-2150300
7000-12361-2150300
7000-12241-2150500
7000-12361-2150500
7000-12241-2151000
7000-12361-2151000

For further details see the wiring-solutions section of our catalog or our website www.AutomationDirect.com

See our website www.AutomationDirect.com for complete Engineering drawings.

BVS-4 Series Control Distribution Blocks

BVS-4 Series Control Distribution Blocks Accessories



BVPS-BP

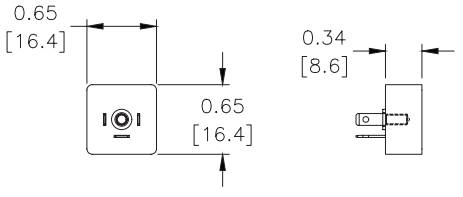


BVM-4BP1

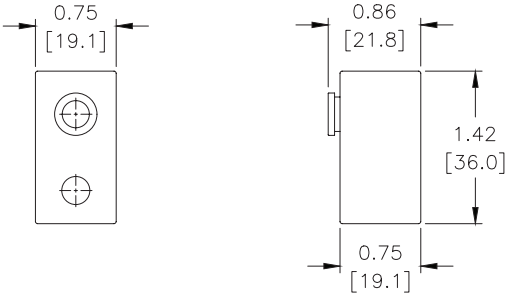
AVPS Series Control Distribution Blocks Accessories			
Part No.	***Description***	***Price***	***Weight (lbs)***
BVPS-BP	NITRA blanking plug, for use with BVPS series control distribution blocks.	$12.00	0.1
BVM-4BP1	NITRA blanking plug, fiberglass reinforced plastic. For use with BVM-4x25 manifolds.	$13.50	0.1
BVM-4BP2	NITRA blanking plug, fiberglass reinforced plastic. For use with BVM-4x6M manifolds.	$13.50	0.1

Dimensions

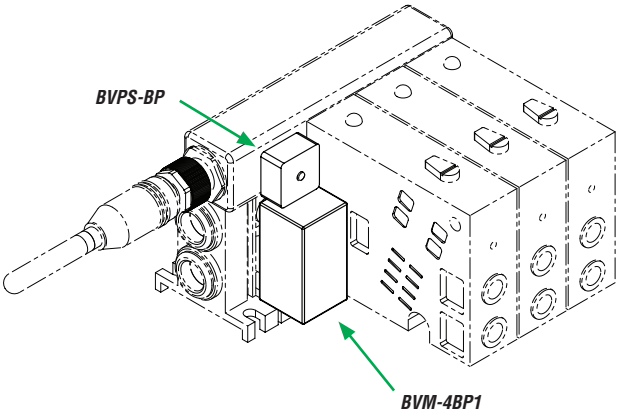
inches [mm]



Part No. BVPS-BP



Part No. BVM-4BPx



See our website www.AutomationDirect.com for complete Engineering drawings.

Pneumatic Modular Air Pilot Valves – BVS Series



BVS Single Air Pilot



BVS Double Air Pilot

NITRA pneumatic BVS series modular piloted valves are body ported 4-port (4-way) valves. Models are single pilot, spring return or double pilot operated.

Features

- Body ported 4-port (4-way) spool valves
- 1/4" or 6mm push-to-connect inlet/outlet ports
- 5/32" (4mm) push-to-connect pilot ports
- Flow coefficient (Cv) 0.8
- 2-position
- 2-year warranty

Valve Symbols

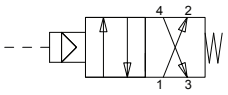


Diagram A

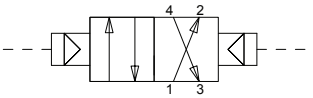


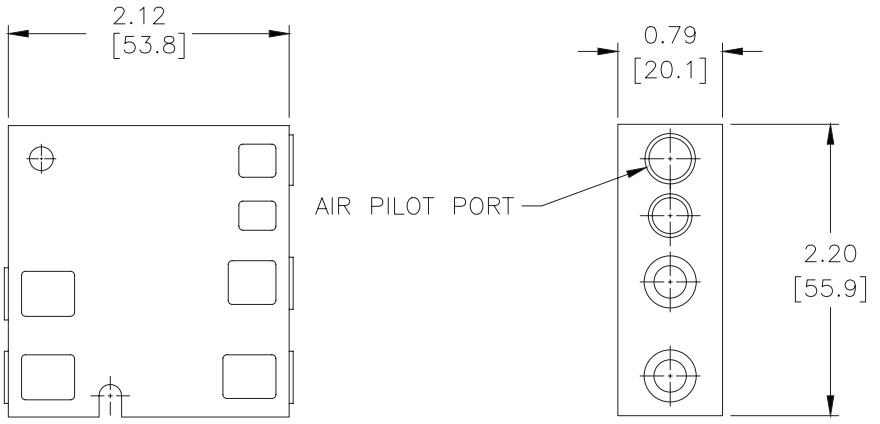
Diagram B

BVS 4-Way Air Pilot Specifications				
Model	***BVS-425-1P***	***BVS-46M-1P***	***BVS-425-2P***	***BVS-46M-2P***
Price	$31.00	$31.00	$34.00	$34.00
Weight (lbs)	0.13			
Acting	Spool (2-Position), spring return		Spool (2-Position), double air pilot	
Diagram	A		B	
Port Size	(1) 1/4" inlet (2) 1/4" outlet (1) 1/4" exhaust (1) 5/32" (4mm) pilot	(1) 6mm inlet (2) 6mm outlet (1) 6mm exhaust (1) 5/32" (4mm) pilot	(1) 1/4" inlet (2) 1/4" outlet (1) 1/4" exhaust (2) 5/32" (4mm) pilot	(1) 6mm inlet (2) 6mm outlet (1) 6mm exhaust (2) 5/32" (4mm) pilot
Orifice Size	0.2" [5.0 mm] (Cv = 0.8)			
Fluid	Air or Inert Gas (to be filtered by 40µ filter element)			
Min. / Max. Pressure	30psi (2bar) - 120psi (8.3 bar)			
Vacuum	Air pilot models can be used in vacuum applications with external air signal to pilot ports.			
Body	Glass Reinforced Thermoplastic			
Expected Life	20,000,000 cycles at max 3 cycles/second			
Temperature - Operation and Storage	0~120°F (-18~49°C)			
Lubrication	Not Required			
Protection	IP 65			

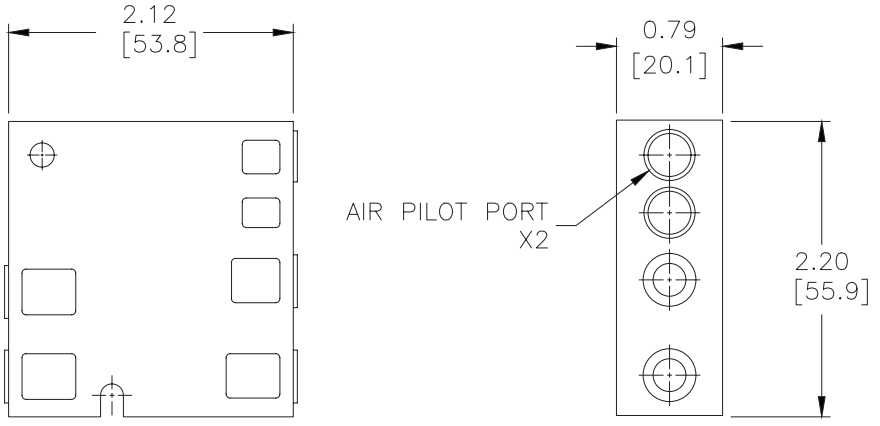
Pneumatic Modular Air Pilot Valves – BVS Series

Dimensions

inches [mm]



BVS Single Air Pilot



BVS Double Air Pilot

See our website www.AutomationDirect.com for complete Engineering drawings.

Pneumatic Directional Control Valves – AVS Air Pilot Valves



Single Pilot Valve



Double Pilot Valve

NITRA™ pneumatic AVS-5 series directional control air valves are body ported 5-port (4-way) spool valves. Available port sizes are 1/8", 1/4", 3/8" or 1/2" NPT with flow coefficients (Cv) from 0.67 to 2.79. Models are available with single pilot spring return or double pilot 2-position operation. In addition, double pilot models are available with 3-position center closed operation. The AVS series can be used in individual valve applications, or multiple valves can be field assembled on AM-5 series manifolds for simplifying piping connections (AVS-52 & AVS-53 series only). AM-5 series manifolds are available in 2, 4, 6 or 8 stations.

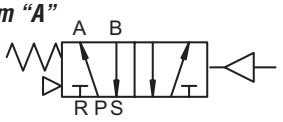
Features

- Body ported, 5-port (4-way) spool valves
- 1/8", 1/4", 3/8" or 1/2" NPT ports
- 2-position, single pilot normally closed, spring return; 2-position, double pilot; 3-position, double pilot center closed
- Single valve or multiple manifold mounted valve applications
- 2 year warranty



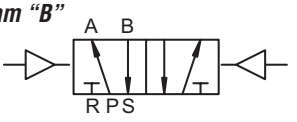
See www.AutomationDirect.com for a wide variety of fitting options

Diagram "A"



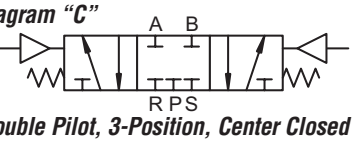
Single Pilot, Spring Return

Diagram "B"



Double Pilot, 2-Position

Diagram "C"



Double Pilot, 3-Position, Center Closed

AVS Series Air Pilot Valve Specifications

Model	AVS-5241	AVS-5251	AVS-526C1	AVS-5242	AVS-5252	AVS-526C2	AVS-5343	AVS-5353	AVS-536C3	AVS-5444	AVS-5454	AVS-546C4
Price	$16.00	$20.00	$32.00	$16.50	$23.00	$33.00	$23.00	$27.50	$35.50	$29.50	$35.50	$46.00
Weight (lbs)	0.3	0.4	0.5	0.3	0.4	0.5	0.5	0.6	0.7	1.1	1.2	1.4
Valve Type	5-port 2-position		5-port 3-position closed center	5-port 2-position		5-port 3-position closed	5-port 2-position		5-port 3-position closed	5-port 2-position		5-port 3-position closed center
Acting	single air pilot	double air pilot		single air pilot	double air pilot		single air pilot	double air pilot		single air pilot	double air pilot	
Diagram	A	B	C	A	B	C	A	B	C	A	B	C
Port Size	1/8" NPT			Inlet port 1/4" NPT - Exhaust 1/8" NPT			Inlet port 3/8" NPT - Exhaust 1/4" NPT			1/2" NPT		
Pilot Port Size	1/8 NPT											
Flow Cv	0.78		0.67	0.89		0.67	1.67		1.00	2.79		1.68
Fluid	Air (to be filtered by 40µ filter element)											
Min. / Max. Pressure	20-115Psi (Pilot must be at least 50% of inlet pressure)											
Max Activate Rate	5 cycles/sec		3 cycles/sec	5 cycles/sec		3 cycles/sec	5 cycles/sec		3 cycles/sec			
Temperature	-5~60°C (23~140°F)											
Lubrication	Not Required											
Body	Aluminum Alloy											
Drawing Figure	1	2	3	1	2	3	4	5	6	7	8	9

Pneumatic Directional Control - Foot Pedal Valve with Guard

NITRA™ pneumatic CVS series directional control foot pedal valves are 5-port (4-way) spool valves that are ideal for non-electrical operator control applications. Available in 1/4" NPT with a flow coefficient (Cv) of 0.80. Models are available with momentary or latching operation.



Foot Pedal Valve with Guard

Features

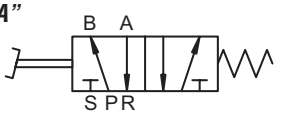
- Body ported, 5-port (4-way) spool valves
- 1/4" NPT ports
- Momentary or latching models
- Includes guard to prevent accidental actuation
- 2 year warranty





See www.AutomationDirect.com for a wide variety of fitting options

Diagram "A"



5-Port, 2-Pos. Foot Pedal Without Lock (Momentary)

Diagram "B"



5-Port, 2-Pos. Foot Pedal With Lock (Latching)

CVS Series Air Pilot Valve Specifications		
Model	***CVS-5272-FP (Momentary)***	***CVS-527D2-FP (Latching)***
Price	$29.00	$32.50
Weight (lbs)	2.3	2.4
Valve Type	5-port 2-position	
Acting	Direct Acting	
Diagram	A	B
Port Size	1/4" NPT	
Flow Cv	0.80	
Fluid	Air (to be filtered by 40µ filter element)	
Min. / Max. Pressure	0-115Psi	
Temperature	-5~60°C (23~140°F)	
Lubrication	Not Required	
Body	Aluminum Alloy	
Drawing Figure	10	

Pneumatic Directional Control – Manual Valves

NITRA™ pneumatic directional control manual valves are body ported spool or ball valves. Available port sizes are 1/8", 1/4" or 1/2 NPT with flow coefficients (Cv) from 0.78 to 5.29. Models are available in 2-position or 3-position detented operation styles.

Features

- Body ported, 5-port spool or 4-port rotary valves
- 2-position or 3-position detented operation
- 2 year warranty



Side View



See www.AutomationDirect.com for a wide variety of fitting options

Toggle Style Hand Lever Valve

Diagram "A"



5-Port, 2-Pos. Toggle Detented

Push-Pull Valves

Diagram "B"



5-Port, 2-Pos. Push-Pull Detented

Toggle Style Hand Lever Valve Specifications		
Model	***AVS-527D1-HL***	***AVS-537D2-HL***
Price	$16.50	$23.50
Weight (lbs)	0.4	0.6
Valve Type	5-port 2-position detented	
Acting	Direct Action Hand Lever	
Diagram	A	
Port Size	1/8" NPT	1/4" NPT
Flow Cv	0.78	1.39
Fluid	Air (to be filtered by 40µ filter element)	
Min. / Max. Pressure	0-115Psi	
Temperature	-5~60°C (23~140°F)	
Lubrication	Not Required	
Body	Aluminum Alloy	
Drawing Figure	11	

Push-Pull Valve Specifications		
Model	***AVS-527D1-PP***	***AVS-537D2-PP***
Price	$16.00	$22.00
Weight (lbs)	0.3	0.6
Valve Type	5-port 2-position detented	
Acting	Direct Acting Push-Pull	
Diagram	B	
Port Size	1/8" NPT	1/4" NPT
Flow Cv	0.78	1.39
Fluid	Air (to be filtered by 40µ filter element)	
Min. / Max. Pressure	0-115Psi	
Temperature	-5~60°C (23~140°F)	
Lubrication	Not Required	
Body	Aluminum Alloy	
Drawing Figure	12	

Pneumatic Directional Control – Manual Valves

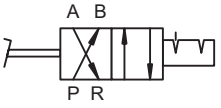




See www.AutomationDirect.com for a wide variety of fitting options

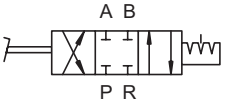
Rotary Style Hand Lever Valve

Diagram "A"



4-Port, 2-Pos.

Diagram "B"



4-Port, 3-Pos. Detented Closed Center Solenoid

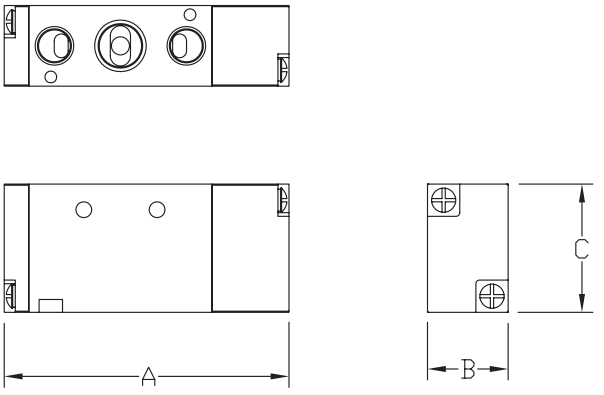
Rotary Style Hand Lever Valve Specifications				
Model	***CVR-437D2-HL***	***CVR-438D2-HL***	***CVR-447D4-HL***	***CVR-448D4-HL***
Price	$17.00	$17.00	$20.50	$20.50
Weight (lbs)	1.5	1.5	3.1	3.1
Valve Type	4-port 2-position	4-port 3-position detented closed center	4-port 2-position	4-port 3-position detented closed center
Acting	Rotary Style Hand Lever			
Diagram	A	B	A	B
Port Size	1/4" NPT	1/4" NPT	1/2" NPT	1/2" NPT
Flow Cv	0.89	0.89	5.29	5.29
Fluid	Air (to be filtered by 40µ filter element)			
Min. / Max. Pressure	0-145Psi			
Temperature	-5~63°C (23~145°F)			
Lubrication	Not Required			
Body	Aluminum Alloy			
Drawing Figure	13			

Pneumatic Directional Control – Manual Valve Dimensions

Dimensions

mm [inches]

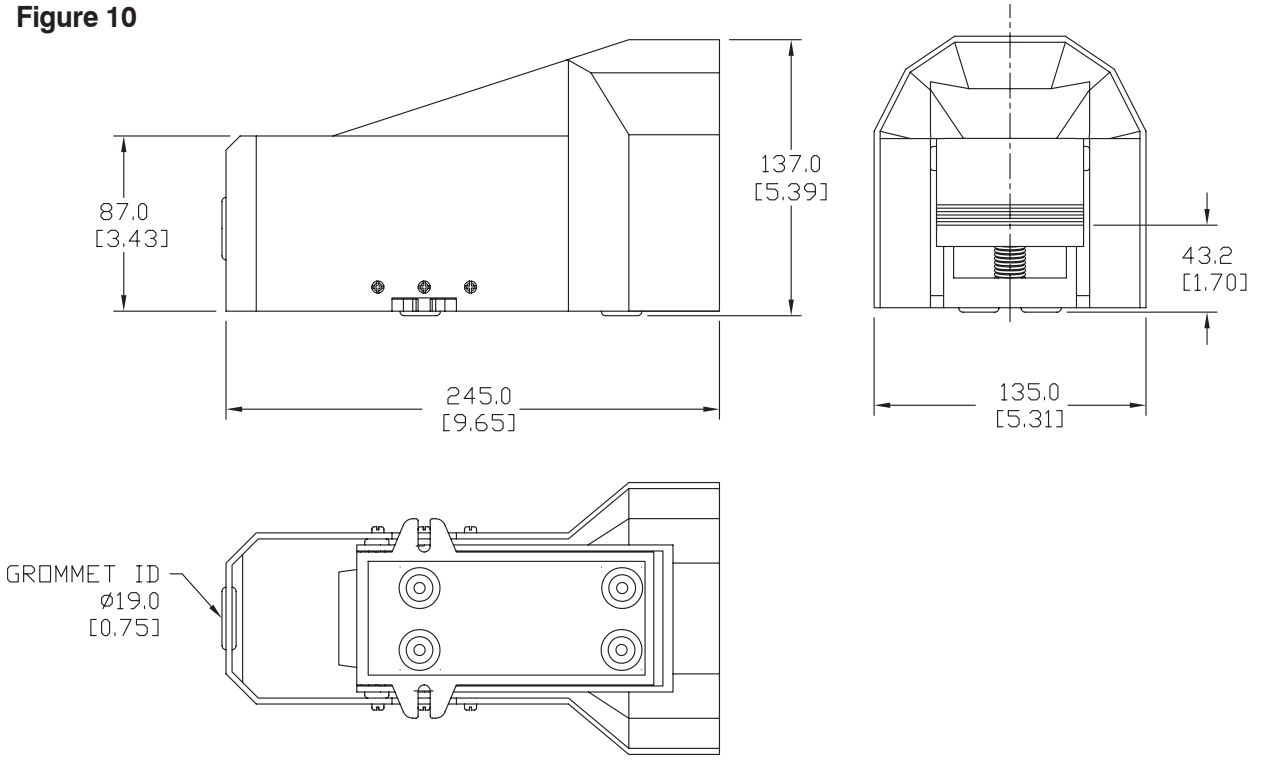
Figures 1-9



PILOT VALVE DIMENSIONS									
DWG FIGURE	1	2	3	4	5	6	7	8	9
DIM. A	77.7 [3.06]	92.0 [3.62]	111.0 [4.37]	95.5 [3.76]	111.0 [4.37]	130.0 [5.12]	128.0 [5.04]	142.0 [5.51]	163.0 [6.42]
DIM. B	22.0 [0.87]	22.0 [0.87]	22.0 [0.87]	27.0 [1.06]	27.0 [1.06]	27.0 [1.06]	34.0 [1.34]	34.0 [1.34]	34.0 [1.34]
DIM. C	35.0 [1.38]	35.0 [1.38]	35.0 [1.38]	40.0 [1.57]	40.0 [1.57]	40.0 [1.57]	50.0 [1.97]	50.0 [1.97]	50.0 [1.97]

See our website www.AutomationDirect.com for complete Engineering drawings

Figure 10



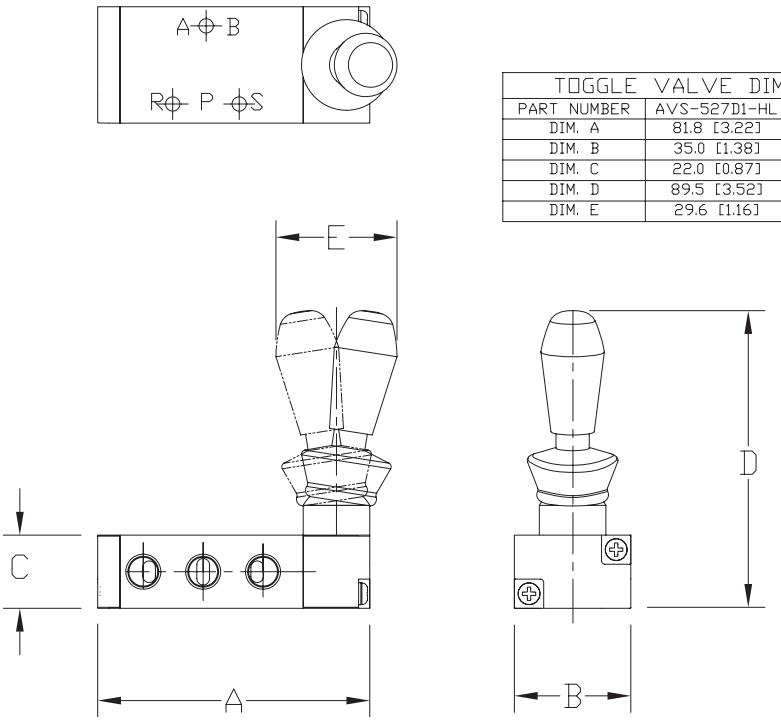
See our website www.AutomationDirect.com for complete Engineering drawings

Pneumatic Directional Control - Manual Valve Dimensions

Dimensions

mm [inches]

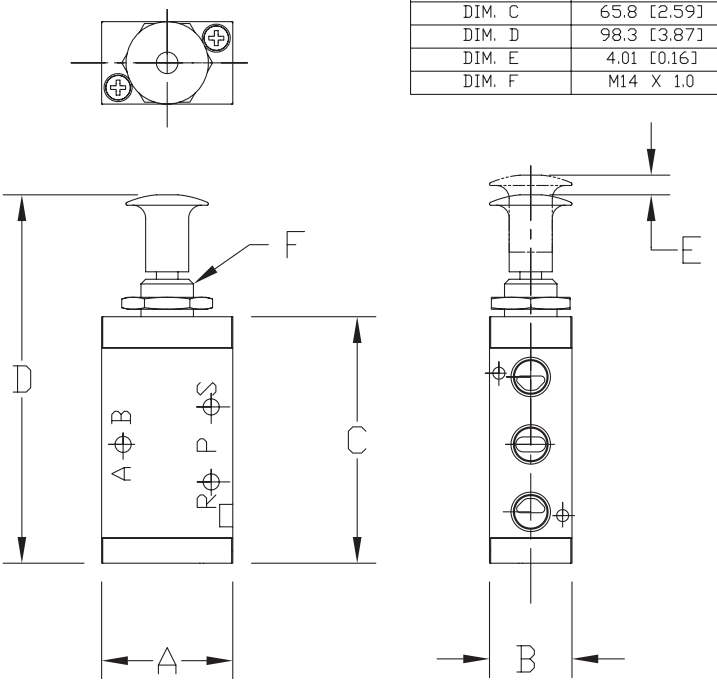
Figure 11



TOGGLE VALVE DIMENSIONS		
PART NUMBER	AVS-527D1-HL	AVS-537D2-HL
DIM. A	81.8 [3.22]	100.9 [3.97]
DIM. B	35.0 [1.38]	40.2 [1.58]
DIM. C	22.0 [0.87]	27.1 [1.07]
DIM. D	89.5 [3.52]	91.6 [3.61]
DIM. E	29.6 [1.16]	31.5 [1.24]

See our website www.AutomationDirect.com for complete Engineering drawings

Figure 12



PUSH-PULL VALVE DIMENSIONS		
PART NUMBER	AVS-527D1-PP	AVS-537D2-PP
DIM. A	35.0 [4.96]	40.0 [1.57]
DIM. B	22.0 [0.87]	27.0 [1.06]
DIM. C	65.8 [2.59]	80.8 [3.18]
DIM. D	98.3 [3.87]	115.8 [4.56]
DIM. E	4.01 [0.16]	5.08 [0.20]
DIM. F	M14 X 1.0	M16 X 1.0

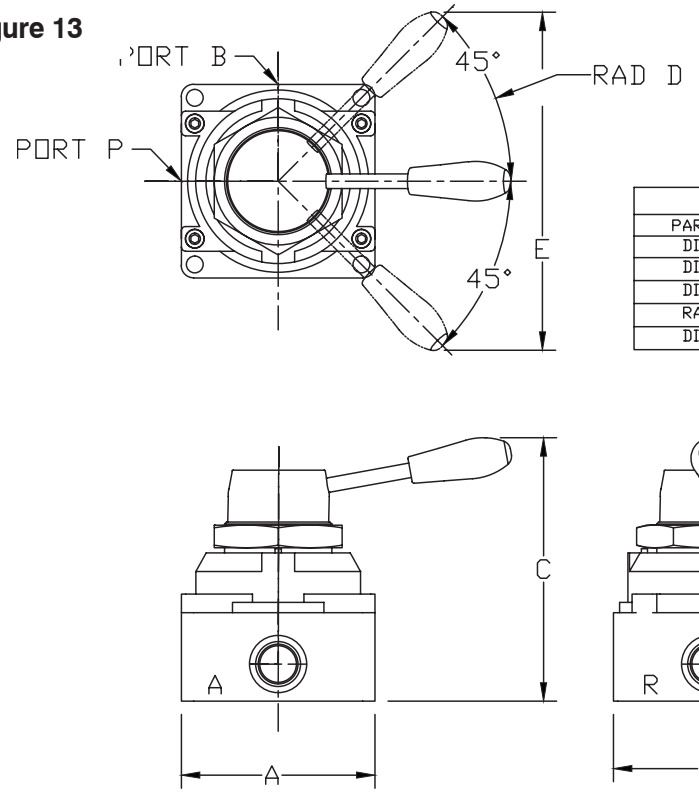
See our website www.AutomationDirect.com for complete Engineering drawings

Pneumatic Directional Control – Manual Valve Dimensions

Dimensions

mm [inches]

Figure 13



ROTARY VALVE DIMENSIONS		
PART NO	CRV-43_D2-HL	CRV-44_D4-HL
DIM. A	73.7 [2.90]	94.0 [3.70]
DIM. B	73.7 [2.90]	102.0 [4.02]
DIM. C	100.3 [3.95]	126.0 [4.96]
RAD D	101.6 [4.00]	113.0 [4.45]
DIM. E	144.8 [5.70]	160.0 [6.30]

See our website www.AutomationDirect.com for complete Engineering drawings

Exhaust Silencers

NITRA™ exhaust silencers are available in three styles and nine popular NPT and BSPT sizes. Add these to the exhaust ports of NITRA directional control solenoid valves to reduce noise.



SBC Series



SBF Series

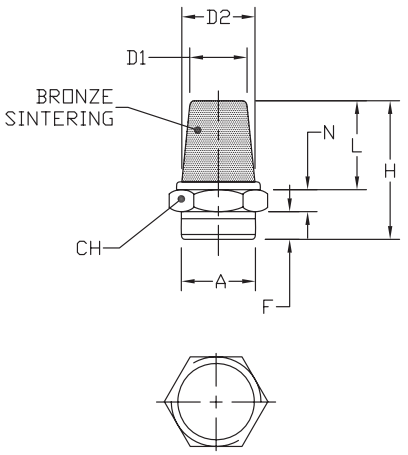


SPL Series

Features

- Inch and metric sizes available
- Bronze cone and flat styles
- Plastic cylindrical
- Maximum pressure = 150 psi

SBC Silencers

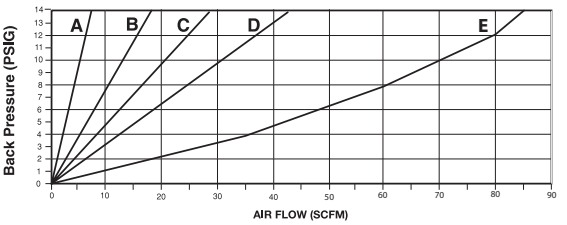


NITRA™ Bronze Cone Silencers											
Inch Sizes - dimensions in inches [mm]											
Part No.	*Price*	*A*	*CH*	*D1*	*D2*	*F*	*H*	*L*	*N*	*Package Weight (lb)*	*Qty. per pack*
SBC-18N	$2.50	MNPT 1/8	0.47 [12.0]	0.32 [8.0]	0.28 [7.0]	0.24 [6.0]	0.94 [24.0]	0.55 [14.0]	0.16 [4.0]	0.01	2
SBC-14N	$3.00	MNPT 1/4	0.63 [16.0]	0.47 [12.0]	0.40 [10.0]	0.32 [8.0]	1.18 [30.0]	0.71 [18.0]	0.16 [4.0]	0.01	
SBC-38N	$4.00	MNPT 3/8	0.71 [18.0]	0.55 [14.0]	0.39 [11.0]	0.35 [9.0]	1.38 [35.0]	0.83 [21.0]	0.197 [5.0]	0.05	
SBC-12N	$6.25	MNPT 1/2	0.94 [24.0]	0.75 [19.0]	0.59 [15.0]	0.40 [10.0]	1.73 [44.0]	1.10 [28.0]	0.24 [6.0]	0.15	
Metric Sizes - dimensions in inches [mm]											
SBC-M5	$2.00	M5	0.31 [8.0]	0.20 [5.0]	0.16 [4.0]	0.20 [5.0]	0.79 [20.0]	0.47 [12.0]	0.12 [3.0]	0.01	2
SBC-18R	$2.50	R 1/8	0.47 [12.0]	0.32 [8.0]	0.28 [7.0]	0.24 [6.0]	0.94 [24.0]	0.55 [14.0]	0.16 [4.0]	0.01	
SBC-14R	$3.00	R 1/4	0.63 [16.0]	0.47 [12.0]	0.40 [10.0]	0.32 [8.0]	1.18 [30.0]	0.71 [18.0]	0.16 [4.0]	0.01	
SBC-38R	$4.00	R 3/8	0.71 [18.0]	0.55 [14.0]	0.39 [11.0]	0.35 [9.0]	1.38 [35.0]	0.83 [21.0]	0.197 [5.0]	0.05	
SBC-12R	$6.25	R 1/2	0.94 [24.0]	0.75 [19.0]	0.59 [15.0]	0.40 [10.0]	1.73 [44.0]	1.10 [28.0]	0.24 [6.0]	0.15	

Flow Characteristics

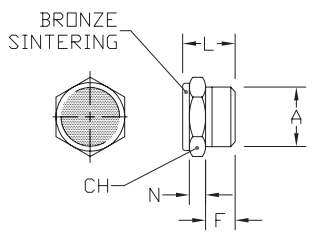
Bronze Cone Silencers

A: SBC-M5
B: SBC-18N; SBC-18R
C: SBC-14N; SBC-14R
D: SBC-38N; SBC-38R
E: SBC-12N; SBC-12R



Noise Elimilation = > 20db
Filtered Element = 40 micron

SBF Silencers



NITRA™ Bronze Flat Silencers								
Inch Sizes - dimensions in inches [mm]								
Part No.	*Price*	*A*	*CH*	*F*	*L*	*N*	*Package Weight (lb)*	*Qty. per pack*
SBF-18N	$2.50	MNPT 1/8	0.47 [12.0]	0.24 [6.0]	0.47 [12.0]	0.16 [4.0]	0.01	2
SBF-14N	$3.00	MNPT 1/4	0.67 [17.0]	0.32 [8.0]	0.59 [15.0]	0.16 [4.0]	0.01	
SBF-38N	$4.00	MNPT 3/8	0.75 [19.0]	0.35 [9.0]	0.67 [17.0]	0.20 [5.0]	0.05	
SBF-12N	$6.25	MNPT 1/2	0.94 [24.0]	0.40 [10.0]	0.71 [18.0]	0.24 [6.0]	0.15	
Metric Sizes - dimensions in inches [mm]								
SBF-M5	$2.00	M5	0.31 [8.0]	0.20 [5.0]	0.35 [9.0]	0.12 [3.0]	0.01	2
SBF-18R	$2.50	R 1/8	0.47 [12.0]	0.24 [6.0]	0.47 [12.0]	0.16 [4.0]	0.01	
SBF-14R	$3.00	R 1/4	0.67 [17.0]	0.32 [8.0]	0.59 [15.0]	0.16 [4.0]	0.01	
SBF-38R	$4.00	R 3/8	0.75 [19.0]	0.35 [9.0]	0.67 [17.0]	0.20 [5.0]	0.05	
SBF-12R	$6.25	R 1/2	0.94 [24.0]	0.40 [10.0]	0.71 [18.0]	0.24 [6.0]	0.15	

Exhaust Silencers

Flow Characteristics

Bronze Flat Silencers

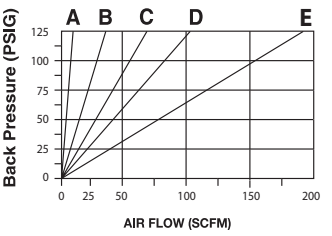
A: SBF-M5

B: SBF-18N; SBF-18R

C: SBF-14N; SBF-14R

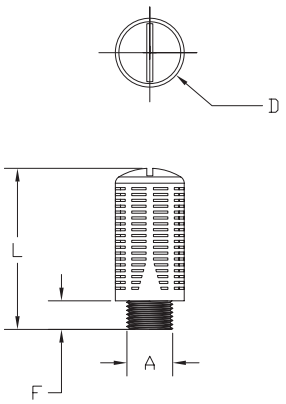
D: SBF-28N; SBF-38R

E: SBF-12N; SBF-12R



Noise Elimilation = > 30db
Filtered Element = 40 micron

SPL Silencers



Note: SPL series plastic exhaust silencers have a maximum pressure of 150 PSI.

NITRA™ Plastic Exhaust Silencers							
Inch Sizes - dimensions in inches [mm]							
Part No.	*Price*	*A*	*D*	*L*	*F*	*Package Weight (lbs)*	*Qty. per pack*
SPL-18N	$2.00	MNPT 1/8	0.55 [13.8]	1.28 [32.4]	0.33 [8.3]	0.02	2
SPL-14N	$2.25	MNPT 1/4	0.68 [17.3]	1.68 [42.5]	0.39 [9.9]	0.03	
SPL-38N	$2.50	MNPT 3/8	0.87 [22.0]	2.10 [53.4]	0.40 [10.0]	0.06	
SPL-12N	$2.50	MNPT 1/2	1.00 [25.4]	2.66 [67.6]	0.44 [11.1]	0.08	
Metric Sizes - dimensions in inches [mm]							
SPL-18R	$2.00	R 1/8	0.60 [15.2]	1.33 [33.7]	0.24 [6.1]	0.02	2
SPL-14R	$2.25	R 1/4	0.60 [18.8]	1.60 [40.6]	0.31 [7.7]	0.03	
SPL-38R	$2.50	R 3/8	0.94 [24.0]	2.20 [55.9]	0.39 [9.9]	0.06	
SPL-12R	$2.50	R 1/2	0.94 [24.0]	2.20 [55.9]	0.39 [9.9]	0.08	

Flow Characteristics

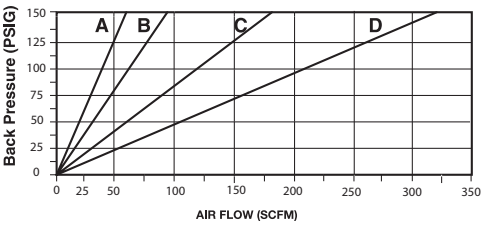
Plastic Silencers

A: SPL-18N; SPL-18R

B: SPL-14N; SPL-14R

C: SPL-38N; SPL-38R

D: SPL-12N; SPL-12R



Noise Elimilation = > 30db
Filtered Element = 40 micron

Pneumatic Cylinders - A-Series

Nitra A-Series Pneumatic Stainless Steel Round Body Air Cylinders

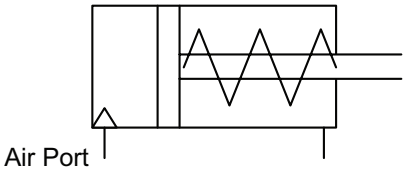
The NITRA Pneumatics A-Series non-repairable stainless steel round body cylinders includes bore sizes from 7/16″ to 2″ and stroke lengths from 1/2″ to 18″ to meet a broad range of applications. These high quality cylinders are constructed with stainless steel bodies and double rolled-in high strength aluminum end caps with full flow ports. To minimize friction the inside of the cylinder body is polished to a mirror finish and all cylinders are factory lubricated for optimum performance and long, reliable life. The high strength aluminum alloy piston is securely threaded and sealed to a piston rod that is ground and roller burnished 303 stainless steel (7/16″ and 9/16″ bores) or ground and polished high strength steel (3/4″ – 2″ bores) with roll-formed threads for exceptional strength. Low friction wear compensating Buna N U-cup rod and piston seals, sintered bronze rod guide bushing (except 7/16″ and 9/16″ bores), and end caps with slots all combine for smooth breakaway even at low pressures.

Features

- Interchangeable with other common brands of round body cylinders
- Available bore sizes: 7/16”, 9/16”, 3/4”, 7/8”, 1-1/16”, 1-1/4”, 1-1/2”, 2”
- Excellent selection of stroke lengths
- Single-acting (spring return) and double-acting models
- Nose, pivot and double-end mounting options
- Type 304 stainless steel body with high-strength aluminum alloy end caps
- Factory lubricated for long, maintenance-free operation
- 250 psi operating pressure
- Models available with magnetic piston for position indication
- All models are available for same-day shipment
- Made in North America
- 3-year warranty

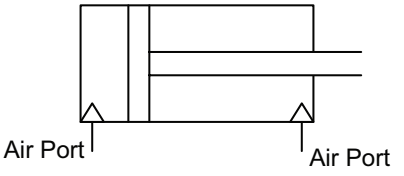
Operation

Single-acting cylinders with spring return have one compressed air port to extend the rod in the “push” direction. The internal spring retracts in the “pull” direction.



Single-Acting Cylinder with Spring Return
(Force in Push Direction)

Double-acting cylinders have two compressed air ports. One of the ports will extend the rod in the “push” direction and the other port will retract the rod in the “pull” directon.



Double-Acting Cylinder
(Force in Push and Pull Direction)

Mounting Options



Nose mount uses one AMB bracket and one AN nut.



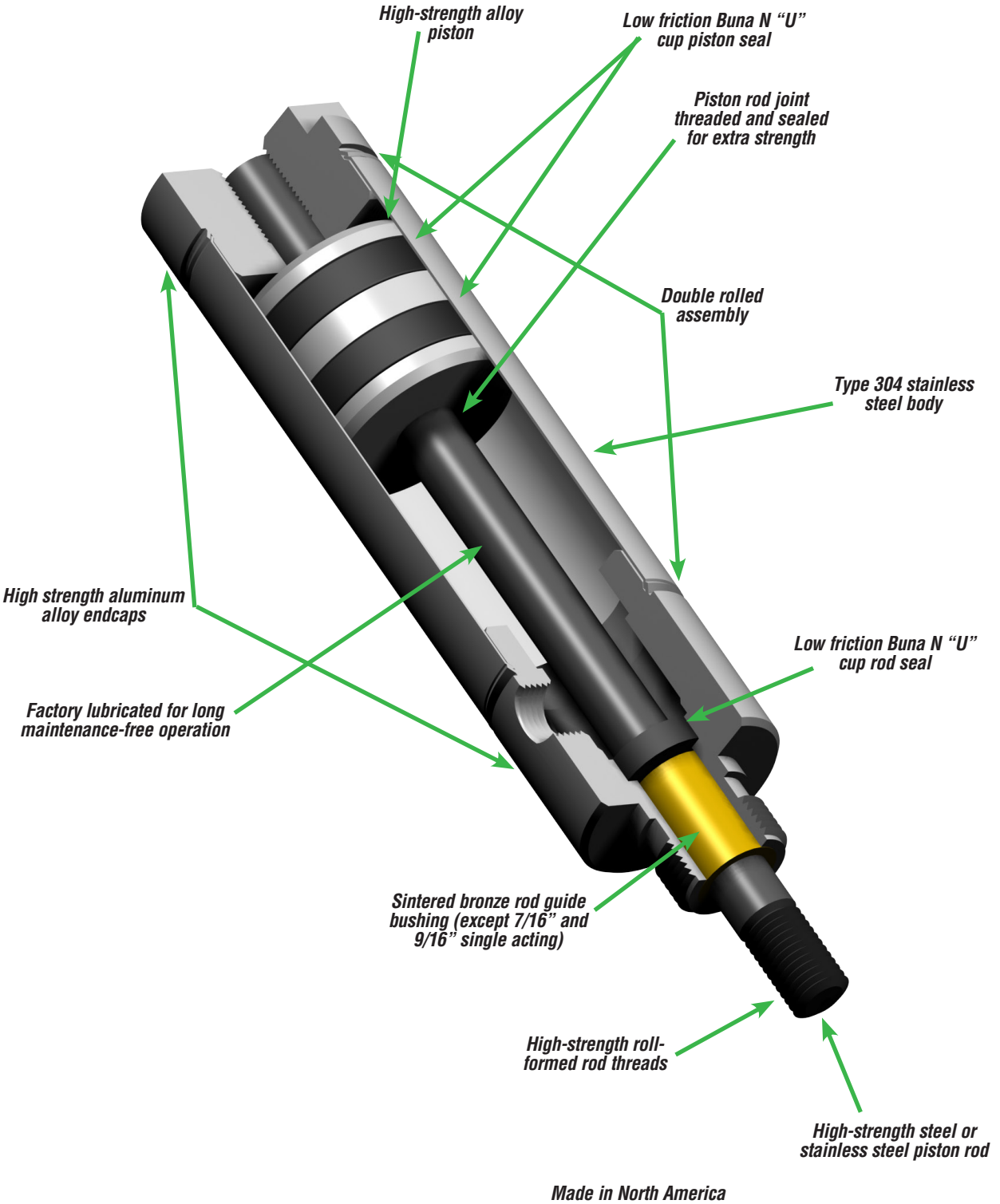
Pivot mount uses one APB or one APBP bracket.



Double end mount uses two AMB brackets and two AN nuts.

Pneumatic Cylinders - A-Series

Cylinder Features



Made in North America

A-Series Pneumatic Cylinders 7/16 inch Bore

7/16 in. Bore, Single-acting, Spring Return, Front Nose Mount



Part no. A07020SN

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 7/16 inch bore, #10-32 port, single acting, spring return, front nose mount.

Cylinder, 7/16 in bore, single-acting, spring return, front nose mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A07005SN	0.5	2.25	0.1	$11.00
A07010SN	1.0	3.19	0.1	$12.00
A07015SN	1.5	4.13	0.1	$13.00
A07020SN	2	5.07	0.1	$14.00

Specifications	
304 SS cylinder body	0.15 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 15.0 lb.	Spring force = 1 lb. relaxed, 2 lb. compressed

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-3	AN-38-24*
Rear Pivot Mount		–	–
Double End Mount	Front	–	–
	Rear	–	–

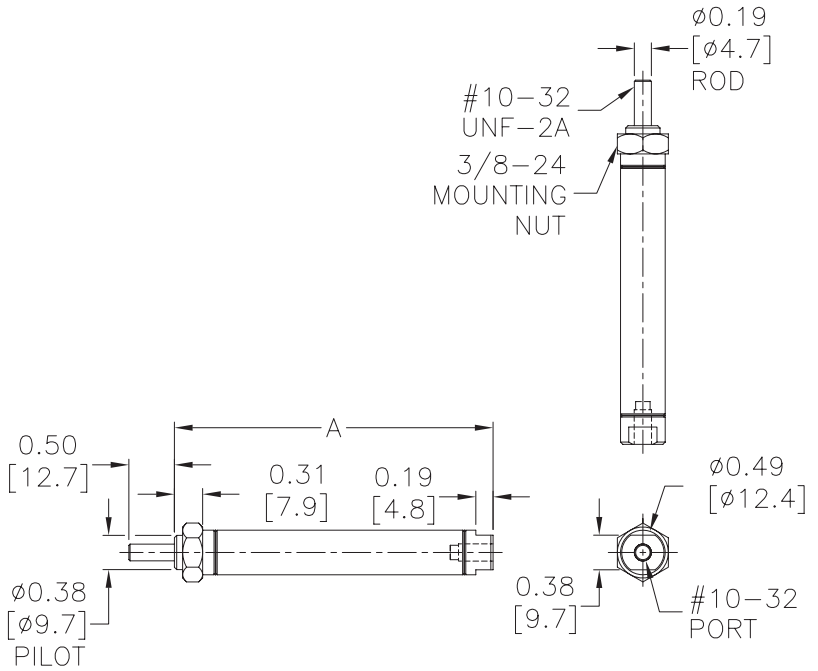
**** (1) Nut included with cylinder***

Cylinder rod clevis ARC-10-32

See end of 7/16" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 7/16 inch Bore

7/16 in. Bore, Single-acting, Spring Return, Rear Pivot Mount



Part no. A07020SP

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 7/16 inch bore, #10-32 port, single acting, spring return, rear pivot mount (pivot pin included).

Cylinder, 7/16 in bore, single acting, spring return, rear pivot mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A07005SP	0.5	2.69	0.1	$14.00
A07010SP	1.0	3.63	0.1	$15.00
A07015SP	1.5	4.57	0.1	$16.50
A07020SP	2	5.51	0.1	$17.50

Specifications	
304 SS cylinder body	0.15 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 15.0 lb.	Spring force = 1 lb. relaxed, 2 lb. compressed

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-3	AN-38-24
Rear Pivot Mount		APB-1	–
Double End Mount	Front	AMB-3	AN-38-24
	Rear	AMB-4	AN-716-24

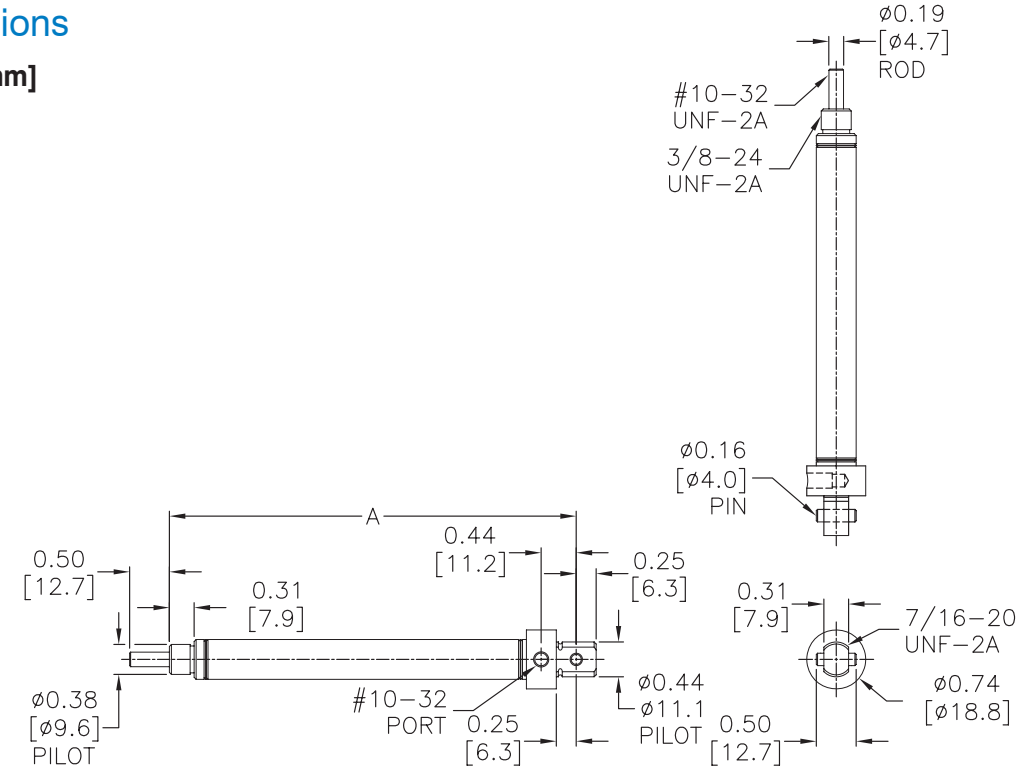
Cylinder rod clevis ARC-10-32

See end of 7/16" bore section for Accessories

Note: Drive pin out for double end mounting

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 7/16 inch Bore

7/16 in. Bore, Double-acting, Front Nose Mount



Part no. A07020DN

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 7/16 inch bore, #10-32 ports, double acting, front nose mount.

Cylinder, 7/16 in bore, double acting, front nose mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A07005DN	0.5	2.62	0.1	$14.50
A07010DN	1.0	3.12	0.1	$16.00
A07015DN	1.5	3.62	0.1	$16.50
A07020DN	2.0	4.12	0.1	$17.00
A07030DN	3.0	5.12	0.1	$18.50
A07040DN	4.0	6.12	0.2	$19.50
A07060DN	6.0	8.12	0.2	$23.00

Specifications	
304 SS cylinder body	0.15 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 15.0 lb.	Retract force at 100 psi = 13.8 lb.

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-4	AN-716-20*
Rear Pivot Mount		–	–
Double End Mount	Front	–	–
	Rear	–	–

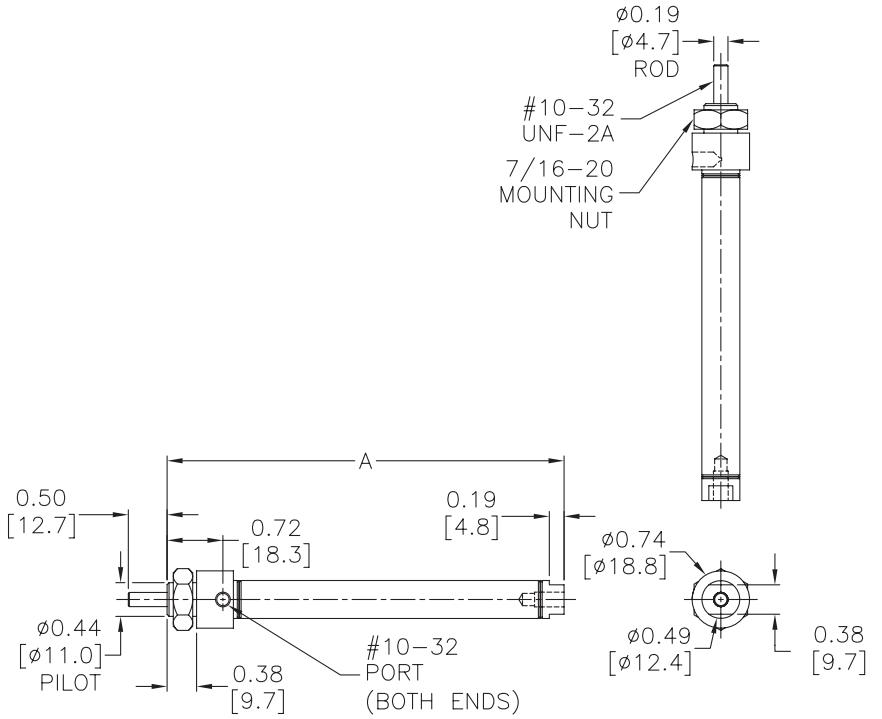
**** (1) Nut included with cylinder***

Cylinder rod clevis ARC-10-32

See end of 7/16" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 7/16 inch Bore

7/16 in. Bore, Double-acting, Rear Pivot Mount



Part no. A07020DP

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 7/16 inch bore, #10-32 ports, double acting, rear pivot mount (pivot pin included).

Cylinder, 7/16 in bore, double acting, rear pivot mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A07005DP	0.5	3.06	0.1	$18.00
A07010DP	1.0	3.56	0.1	$18.50
A07015DP	1.5	4.06	0.1	$19.50
A07020DP	2.0	4.56	0.1	$20.00
A07030DP	3.0	5.56	0.1	$21.50

Specifications	
304 SS cylinder body	0.15 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 15.0 lb.	Retract force at 100 psi = 13.8 lb.

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-4	AN-716-20
Rear Pivot Mount		APB-1	–
Double End Mount	Front	AMB-4	AN-716-20
	Rear	AMB-4	AN-716-20

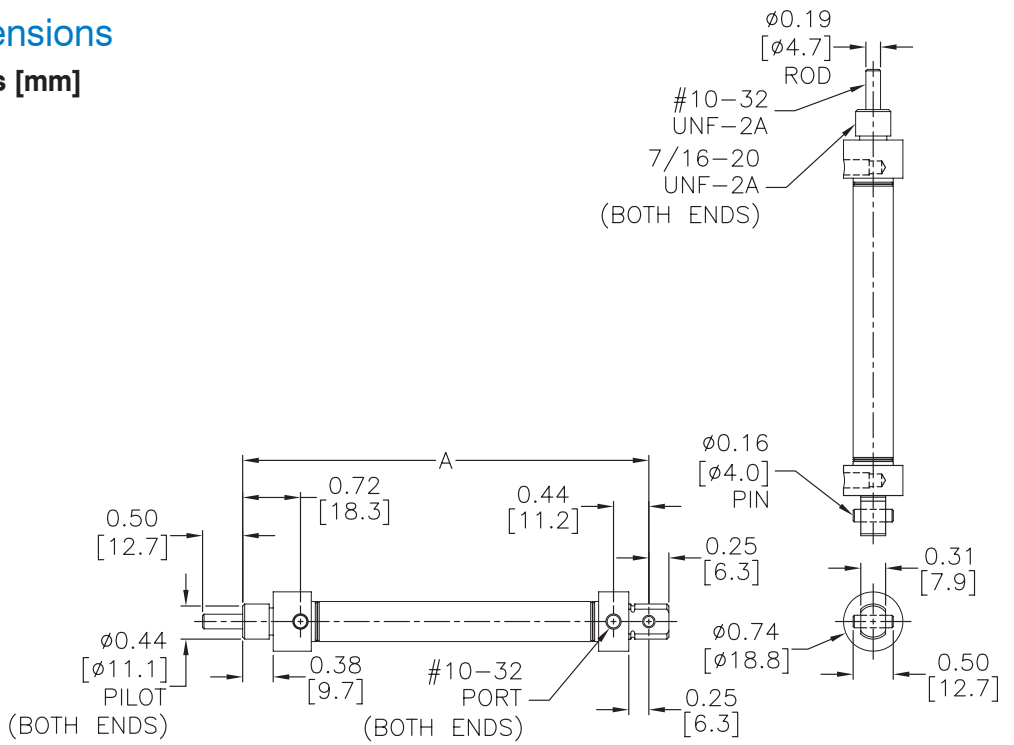
Cylinder rod clevis ARC-10-32

See end of 7/16" bore section for Accessories

Note: Drive pin out for double end mounting

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 7/16 inch Bore Accessories

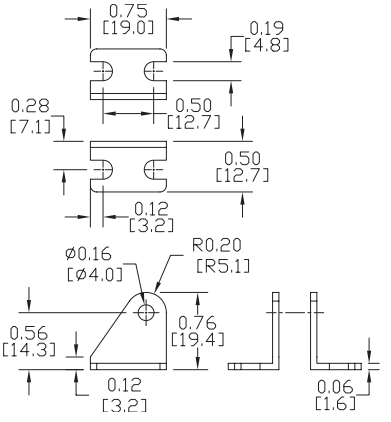
A-Series Pneumatic Cylinder 7/16 inch Bore Accessories				
Part Number	***Description***	***Pcs/Pkg***	***Wt (lb)***	***Price***
APB-1	Cylinder pivot mounting bracket without pivot pin used to mount 7/16 and 9/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	$3.00
AMB-3	Cylinder mounting bracket used to mount 7/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	$2.75
AMB-4	Cylinder mounting bracket used to mount 7/16 and 9/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	$2.75
ARC-10-32	Cylinder rod clevis and hex nut, #10-32 thread, for use with 7/16 and 9/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	$3.00
AN-38-24	Cylinder mounting nut with 3/8-24 UNF-2B threads used to mount 7/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	$1.00
AN-716-20	Cylinder mounting nut with 7/16-20 UNF-2B threads used to mount 7/16 inch and 9/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.2	$1.00

Dimensions

inches [mm]

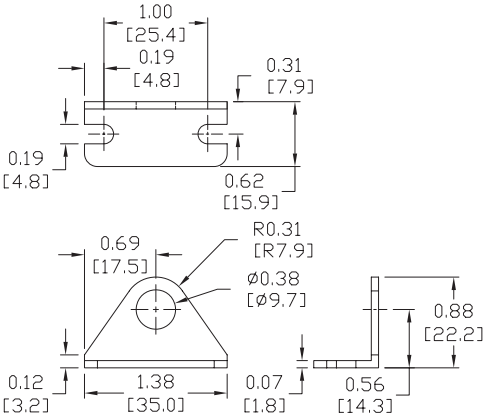
APB-1





AMB-3





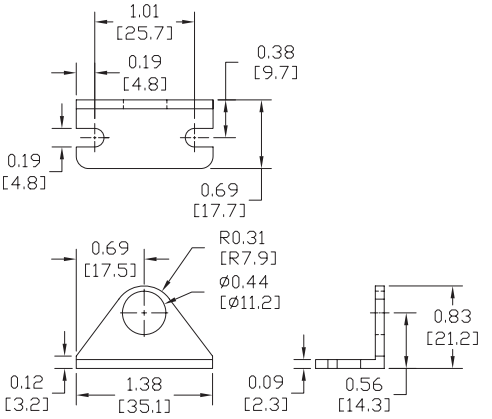
A-Series Pneumatic Cylinders
7/16 inch Bore Accessories

Dimensions

inches [mm]

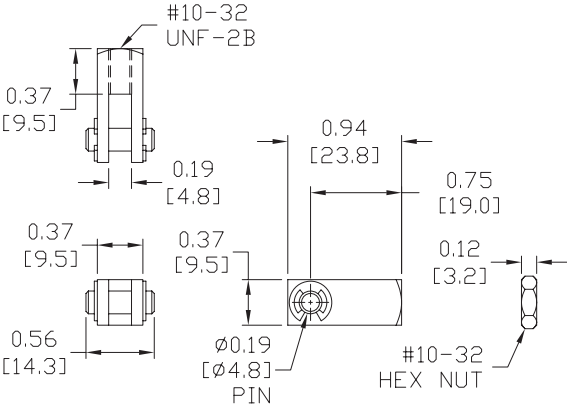
AMB-4





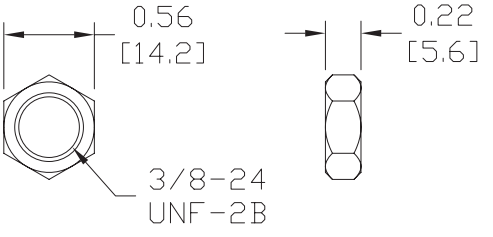
ARC-10-32





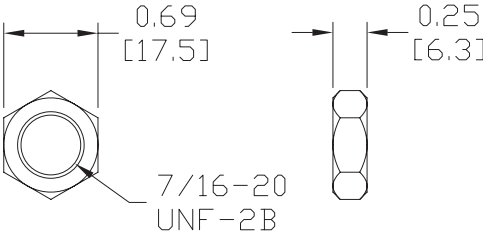
AN-38-24





AN-716-20





A-Series Pneumatic Cylinders 9/16 inch Bore

9/16 in. Bore, Single-acting, Spring Return, Front Nose Mount



Part no. A09020SN

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 9/16 inch bore, #10-32 port, single acting, spring return, front nose mount.

Cylinder, 9/16 in bore, single acting, spring return, front nose mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A09005SN	0.5	2.34	0.1	$11.50
A09010SN	1.0	3.15	0.1	$12.50
A09020SN	2.0	4.77	0.2	$14.50
A09030SN	3.0	6.39	0.2	$17.00

Specifications	
304 SS cylinder body	0.25 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 25.0 lb.	Spring force = 2 lb. relaxed, 4 lb. compressed

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-4	AN-716-20*
Rear Pivot Mount		–	–
Double End Mount	Front	–	–
	Rear	–	–

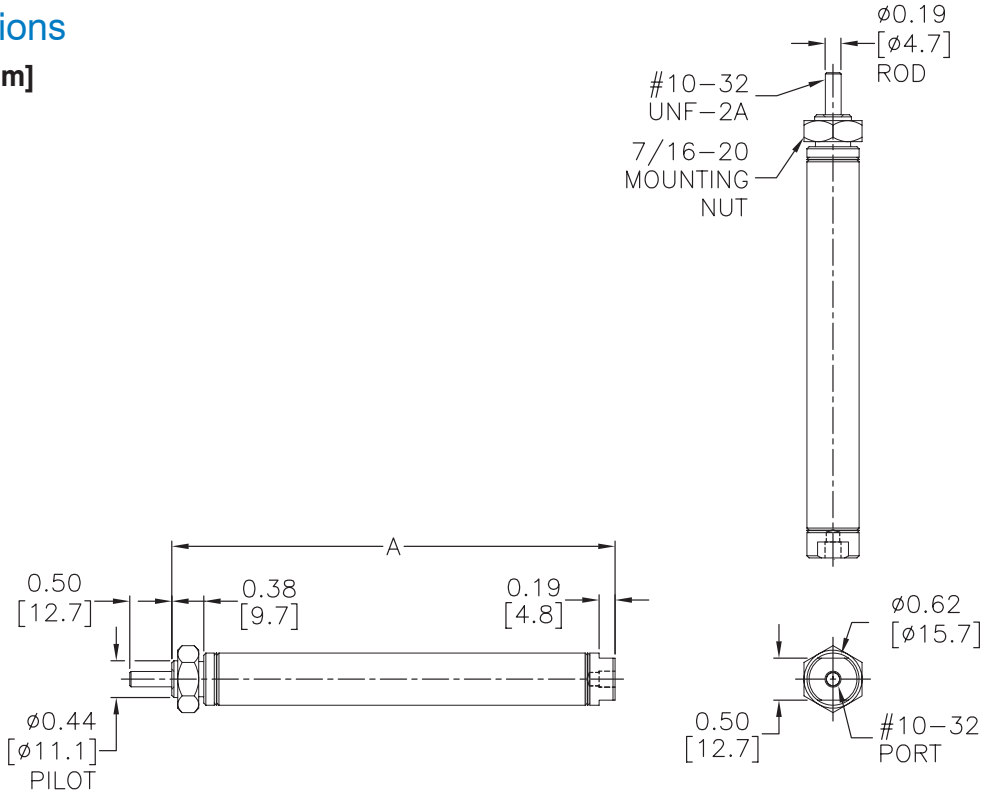
**** (1) Nut included with cylinder***

Cylinder rod clevis ARC-10-32

See end of 9/16" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 9/16 inch Bore

9/16 in. Bore, Single-acting, Spring Return, Double End Mount



Part no. A09020SD

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 9/16 inch bore, #10-32 port, single acting, spring return, double end mount.

Cylinder, 9/16 in bore, single acting, spring return, double end mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A09005SD	0.5	2.62	0.1	$15.00
A09010SD	1.0	3.43	0.1	$16.00
A09020SD	2.0	5.05	0.2	$18.00
A09030SD	3.0	6.67	0.2	$20.00

Specifications	
304 SS cylinder body	0.25 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 25.0 lb.	Spring force = 2 lb. relaxed, 4 lb. compressed

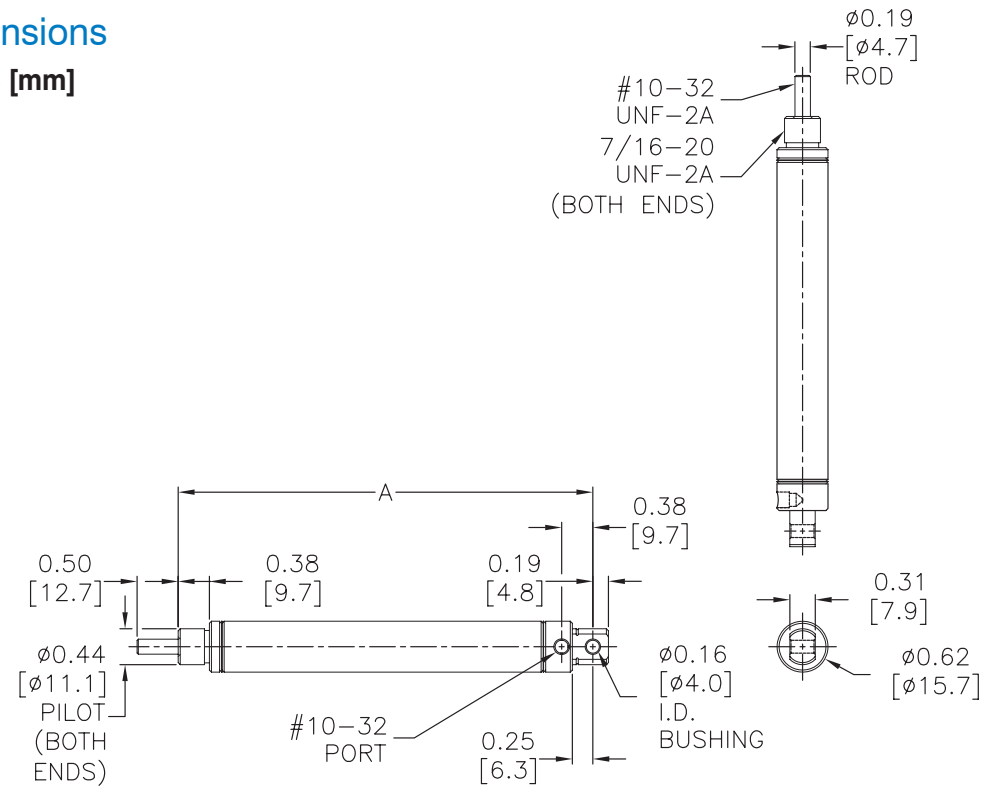
Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-4	AN-716-20
Rear Pivot Mount		APBP-2	–
Double End Mount	Front	AMB-4	AN-716-20
	Rear	AMB-4	AN-716-20

Cylinder rod clevis ARC-10-32

See end of 9/16" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 9/16 inch Bore

9/16 in. Bore, Double-acting, Front Nose Mount



Part no. A09020DN

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 9/16 inch bore, #10-32 ports, double acting, front nose mount.

Cylinder, 9/16 in bore, double acting, front nose mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A09005DN	0.5	2.78	0.1	$15.00
A09010DN	1.0	3.28	0.1	$16.00
A09020DN	2.0	4.28	0.1	$17.50
A09030DN	3.0	5.28	0.2	$19.00
A09040DN	4.0	6.28	0.2	$20.50
A09060DN	6.0	8.28	0.2	$23.00

Specifications	
304 SS cylinder body	0.25 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 25.0 lb.	Retract force at 100 psi = 22.2 lb.

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-4	AN-716-20*
Rear Pivot Mount		–	–
Double End Mount	Front	–	–
	Rear	–	–

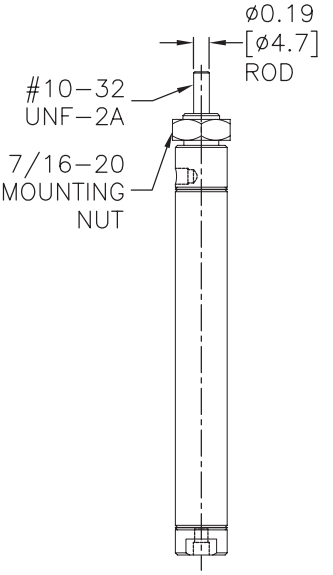
**** (1) Nut included with cylinder***

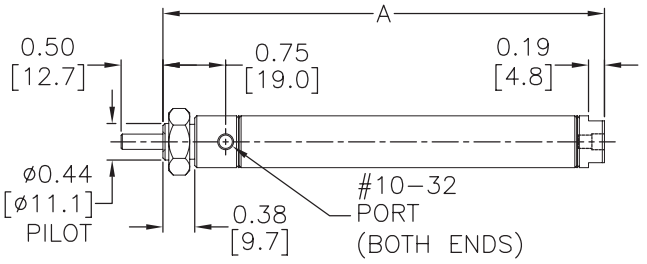
Cylinder rod clevis ARC-10-32

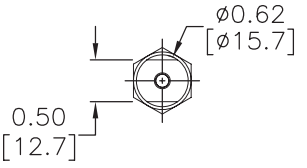
See end of 9/16" bore section for Accessories

Dimensions

inches [mm]







A-Series Pneumatic Cylinders 9/16 inch Bore

9/16 in. Bore, Double-acting, Double End Mount



Part no. A09020DD

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 9/16 inch bore, #10-32 ports, double acting, double end mount.

Cylinder, 9/16 in bore, double acting, double end mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A09005DD	0.5	3.06	0.1	$18.50
A09010DD	1.0	3.56	0.1	$19.00
A09020DD	2.0	4.56	0.1	$20.50
A09030DD	3.0	5.56	0.2	$22.00
A09040DD	4.0	6.56	0.2	$23.50
A09060DD	6.0	8.56	0.2	$27.00

Specifications	
304 SS cylinder body	0.25 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 25.0 lb.	Retract force at 100 psi = 22.2 lb.

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-4	AN-716-20*
Rear Pivot Mount		APBP-2	–
Double End Mount	Front	AMB-4	AN-716-20*
	Rear	AMB-4	AN-716-20*

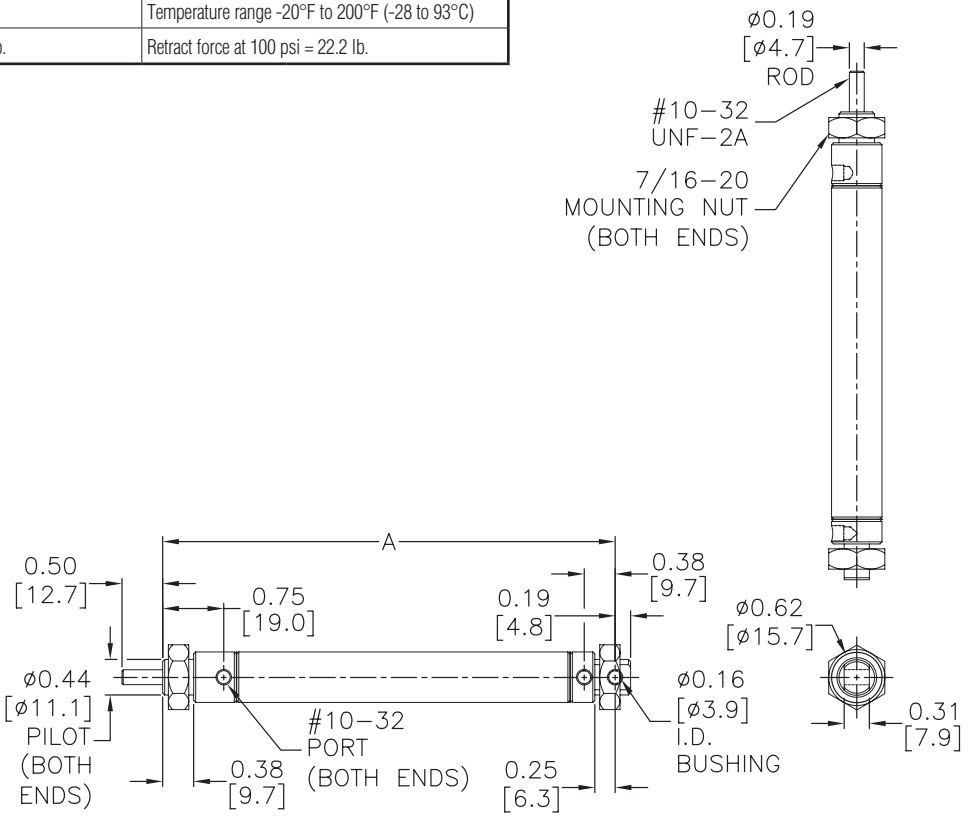
**** (2) Nuts included with cylinder***

Cylinder rod clevis ARC-10-32

See end of 9/16" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 9/16 inch Bore

9/16 in. Bore, Double-acting, Double End Mount, Magnetic Piston



Part no. A09020DD-M

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 9/16 inch bore, #10-32 ports, double acting, double end mount, magnetic piston.

Cylinder, 9/16 in bore, double acting, double end mount, magnetic piston				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A09010DD-M	1.0	3.56	0.1	$28.00
A09020DD-M	2.0	4.56	0.1	$29.50
A09030DD-M	3.0	5.56	0.2	$31.00
A09040DD-M	4.0	6.56	0.2	$32.00
A09060DD-M	6.0	8.56	0.2	$35.00

Specifications	
304 SS cylinder body	0.25 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 25.0 lb.	Retract force at 100 psi = 22.2 lb.

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-4	AN-716-20*
Rear Pivot Mount		APBP-2	–
Double End Mount	Front	AMB-4	AN-716-20*
	Rear	AMB-4	AN-716-20*

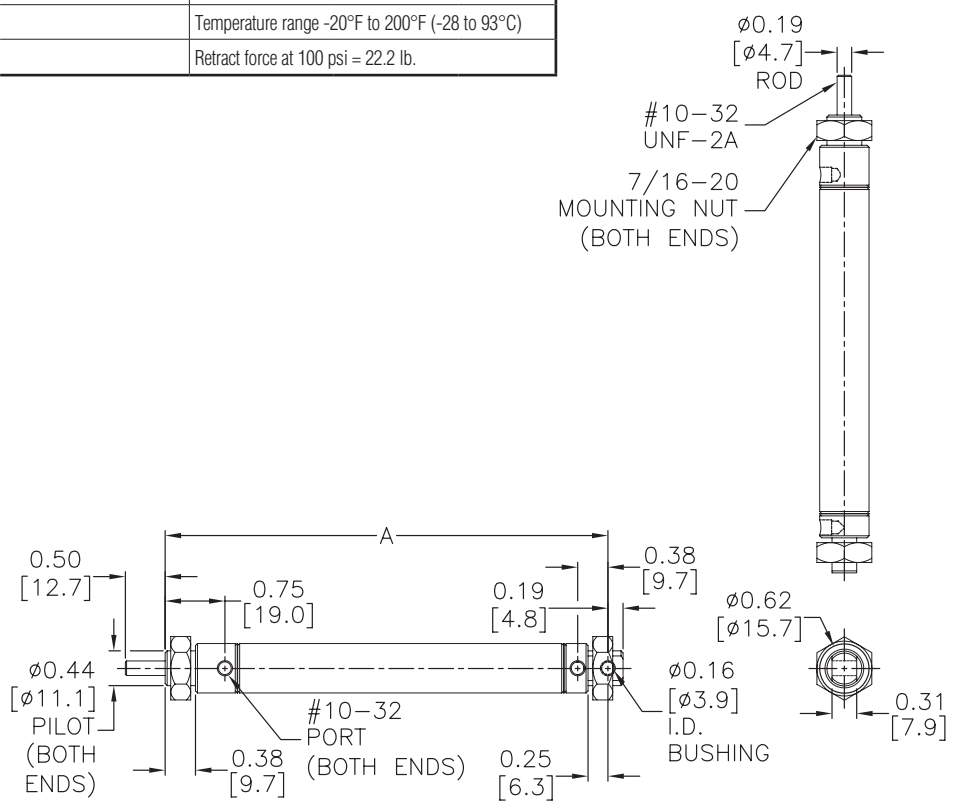
**** (2) Nuts included with cylinder***

Cylinder rod clevis ARC-10-32

See end of 9/16" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 9/16 inch Bore Accessories

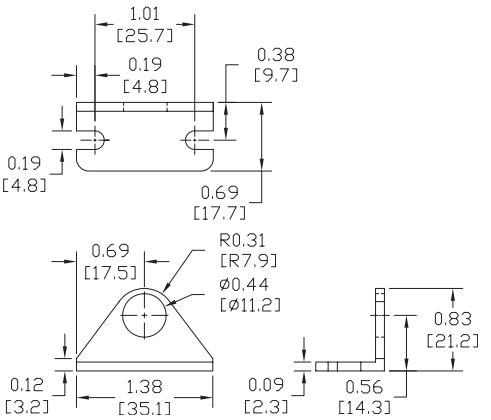
A-Series Pneumatic Cylinder 9/16 inch Bore Accessories				
Part Number	***Description***	***Pcs/Pkg***	***Wt (lb)***	***Price***
AMB-4	Cylinder mounting bracket used to mount 7/16 and 9/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	$2.75
ARC-10-32	Cylinder rod clevis and hex nut, #10-32 thread, for use with 7/16 and 9/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	$3.00
APBP-2	Cylinder pivot mounting bracket with pivot pin used to mount 9/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	$3.50
AN-716-20	Cylinder mounting nut with 7/16-20 UNF-2B threads used to mount 7/16 inch and 9/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.2	$1.00

Dimensions

inches [mm]

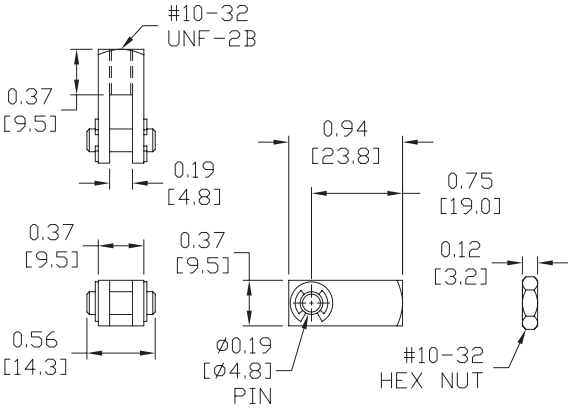
AMB-4





ARC-10-32





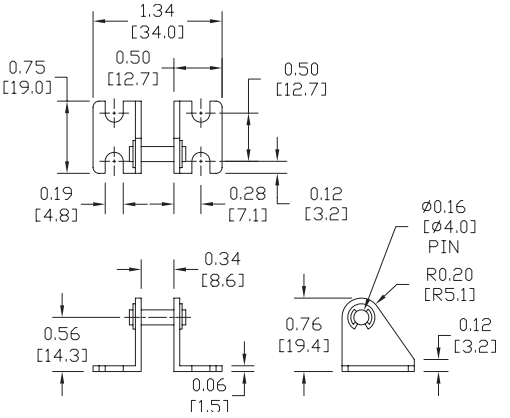
A-Series Pneumatic Cylinders
9/16 inch Bore Accessories

Dimensions

inches [mm]

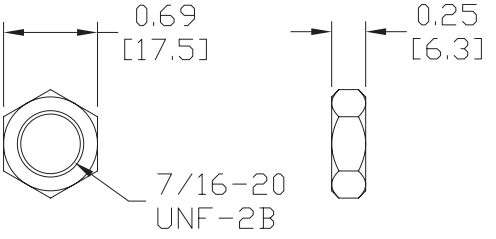
APBP-2





AN-716-20





A-Series Pneumatic Cylinders 3/4 inch Bore

3/4 in. Bore, Single-acting, Spring Return, Front Nose Mount



Part no. A12020SN

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 3/4 inch bore, 1/8 NPT port, single acting, spring return, front nose mount.

Cylinder, 3/4 in bore, single acting, spring return, front nose mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A12005SN	0.5	2.69	0.1	$12.00
A12010SN	1.0	3.19	0.2	$13.00
A12015SN	1.5	4.38	0.2	$14.00
A12020SN	2.0	4.88	0.3	$15.00
A12030SN	3.0	6.57	0.3	$17.50
A12040SN	4.0	8.26	0.4	$19.00
A12050SN	5.0	9.95	0.5	$21.00
A12060SN	6.0	11.64	0.6	$23.00

Specifications	
304 SS cylinder body	0.40 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High-strength carbon-steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 40.0 lb.	Spring force = 3 lb. relaxed, 6 lb. compressed

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-5	AN-12-20*
Rear Pivot Mount		–	–
Double End Mount	Front	–	–
	Rear	–	–

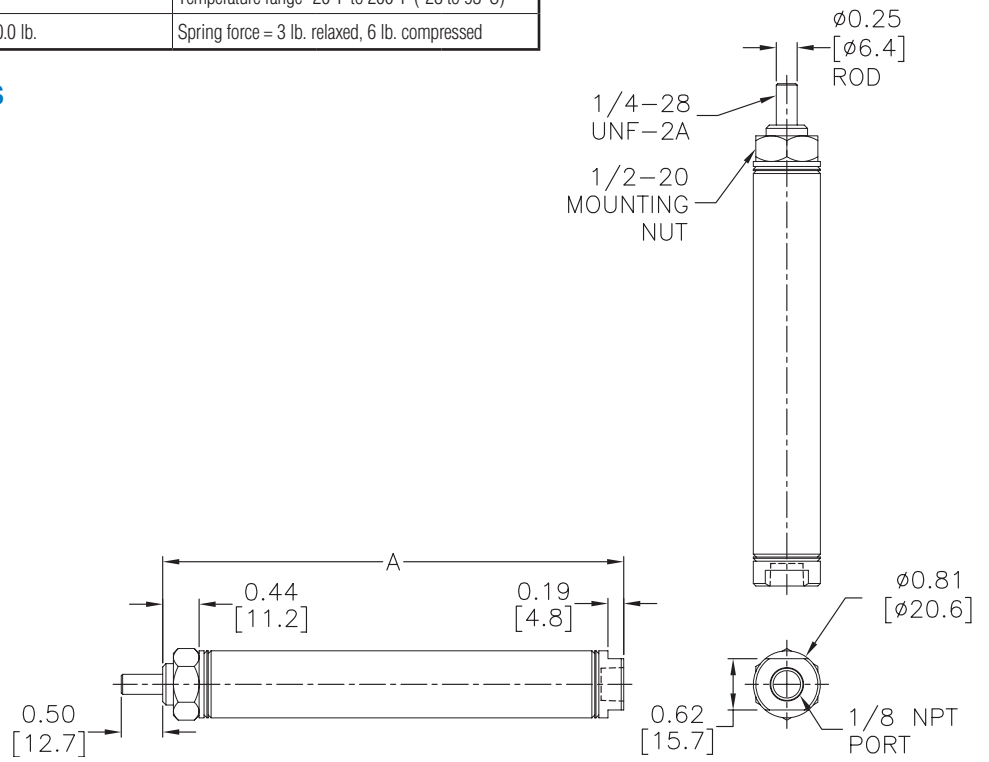
**** (1) Nut included with cylinder***

Cylinder rod clevis ARC-14-28

See end of 3/4" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 3/4 inch Bore

3/4 in. Bore, Single-acting, Spring Return, Rear Pivot Mount



Part no. A12020SP

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 3/4 inch bore, 1/8 NPT port, single acting, spring return, rear pivot mount (pivot pin included).

Cylinder, 3/4 in bore, single acting, spring return, rear pivot mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A12005SP	0.5	3.13	0.2	$15.00
A12010SP	1.0	3.97	0.2	$16.50
A12015SP	1.5	4.82	0.3	$17.50
A12020SP	2.0	5.66	0.3	$18.50
A12030SP	3.0	7.35	0.4	$20.50
A12040SP	4.0	9.04	0.5	$22.00
A12050SP	5.0	10.73	0.5	$24.00
A12060SP	6.0	12.42	0.6	$27.00

Specifications	
304 SS cylinder body	0.40 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High-strength carbon-steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 40.0 lb.	Spring force = 3 lb. relaxed, 6 lb. compressed

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-5	AN-12-20
Rear Pivot Mount		APB-2	–
Double End Mount	Front	AMB-5	AN-12-20
	Rear	AMB-6	AN-58-18

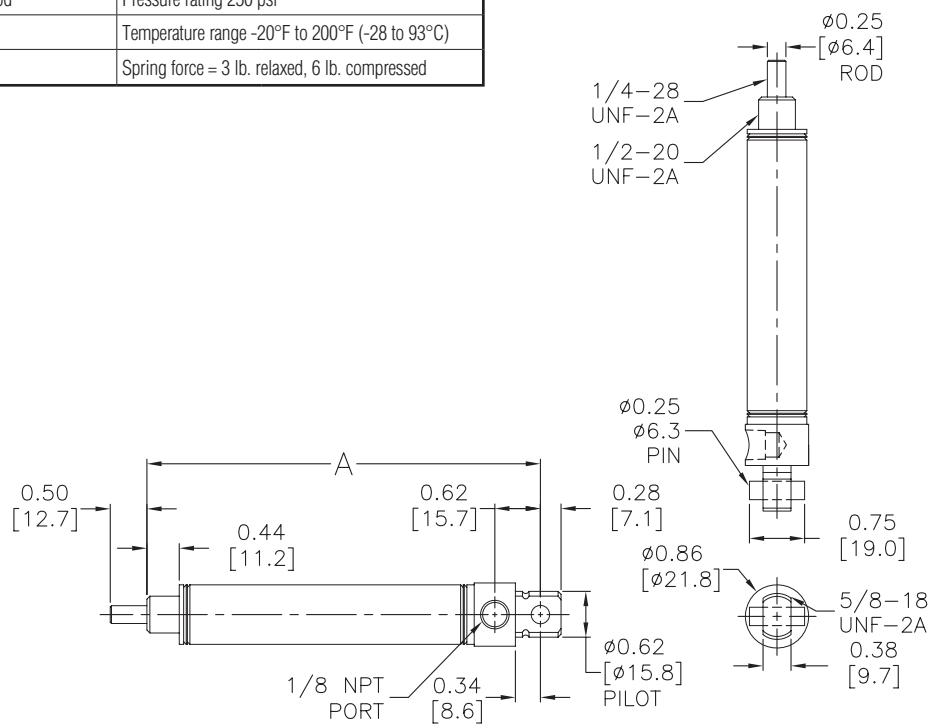
Cylinder rod clevis ARC-14-28

See end of 3/4" bore section for Accessories

Note: Drive pin out for double end mounting

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 3/4 inch Bore

3/4 in. Bore, Double-acting, Front Nose Mount



Part no. A12020DN

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 3/4 inch bore, 1/8 NPT ports, double acting, front nose mount.

Cylinder, 3/4 in bore, double acting, front nose mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A12005DN	0.5	3.47	0.2	$18.50
A12010DN	1.0	3.97	0.2	$16.00
A12015DN	1.5	4.47	0.3	$19.50
A12020DN	2.0	4.97	0.3	$17.50
A12030DN	3.0	5.97	0.3	$19.00
A12040DN	4.0	6.97	0.3	$20.50
A12050DN	5.0	7.97	0.4	$22.00
A12060DN	6.0	8.97	0.4	$23.00
A12080DN	8.0	10.97	0.5	$27.00
A12100DN	10.0	12.97	0.5	$30.00
A12120DN	12.0	14.97	0.6	$32.50

Specifications	
304 SS cylinder body	0.40 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High-strength carbon-steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 40.0 lb.	Retract force at 100 psi = 35.1 lb.

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-6	AN-58-18*
Rear Pivot Mount		–	–
Double End Mount	Front	–	–
	Rear	–	–

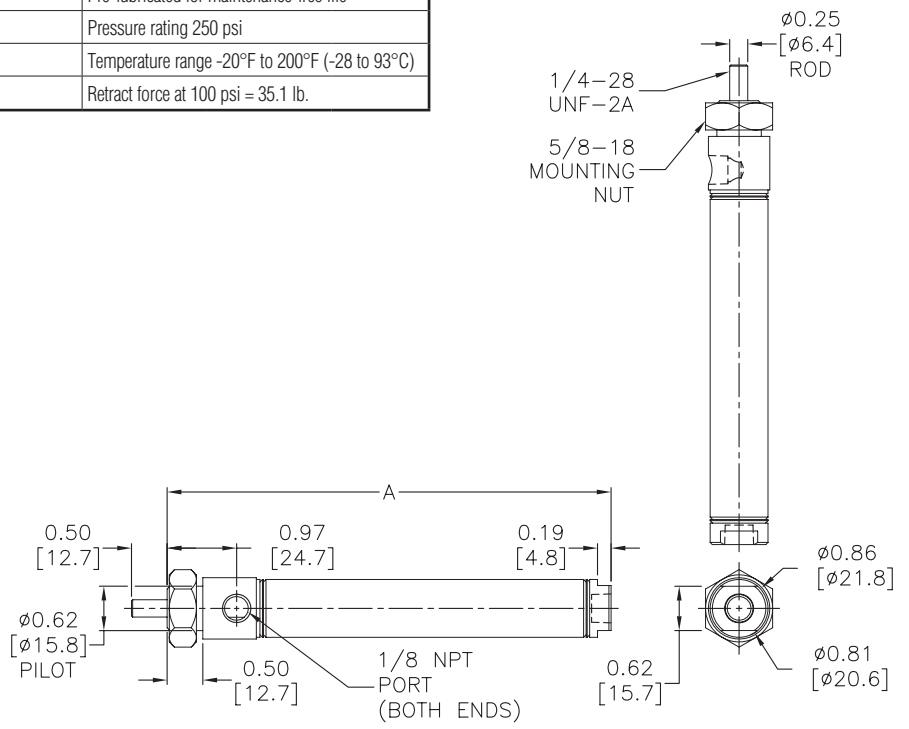
**** (1) Nut included with cylinder***

Cylinder rod clevis ARC-14-28

See end of 3/4" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 3/4 inch Bore

3/4 in. Bore, Double-acting, Rear Pivot Mount



Part no. A12020DP

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 3/4 inch bore, 1/8 NPT ports, double acting, rear pivot mount (pivot pin included).

Cylinder, 3/4 in bore, double acting, rear pivot mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A12005DP	0.5	4.25	0.2	$18.50
A12010DP	1.0	4.75	0.2	$19.00
A12020DP	2.0	5.75	0.3	$20.50
A12030DP	3.0	6.75	0.3	$22.00
A12040DP	4.0	7.75	0.3	$23.00
A12050DP	5.0	8.75	0.4	$24.50
A12060DP	6.0	9.75	0.4	$27.00
A12080DP	8.0	11.75	0.5	$30.00
A12100DP	10.0	13.75	0.5	$32.50
A12120DP	12.0	15.75	0.6	$35.50

Specifications	
304 SS cylinder body	0.40 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High-strength carbon-steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 40.0 lb.	Retract force at 100 psi = 35.1 lb.

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-6	AN-58-18
Rear Pivot Mount		APB-2	–
Double End Mount	Front	AMB-6	AN-58-18
	Rear	AMB-6	AN-58-18

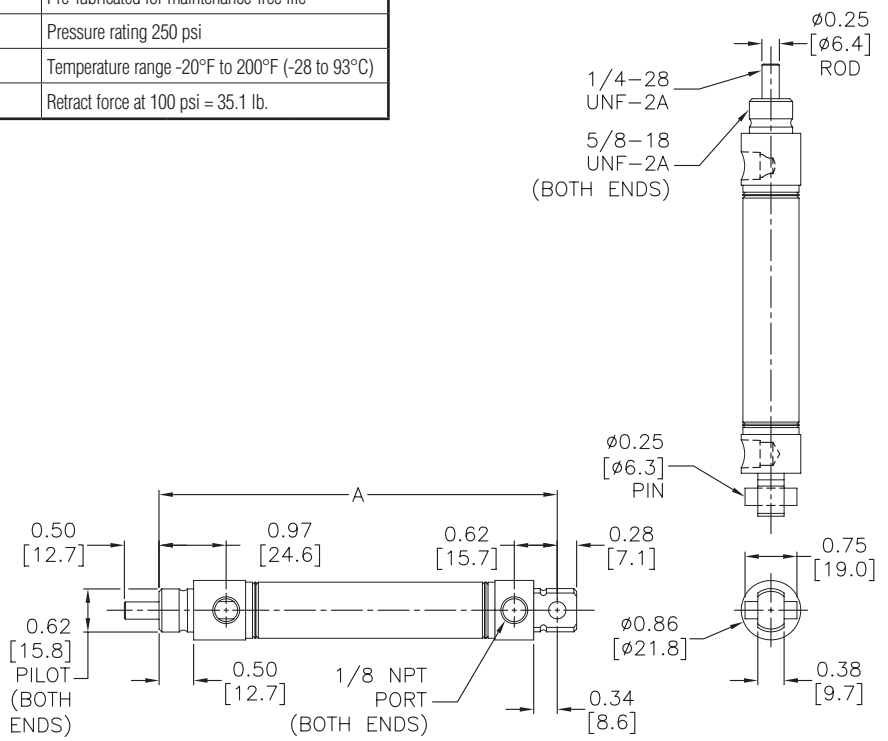
Cylinder rod clevis ARC-14-28

See end of 3/4" bore section for Accessories

Note: Drive pin out for double end mounting

Dimensions

inches [mm]



A-Series Pneumatic Cylinders
3/4 inch Bore

3/4 in. Bore, Double-acting, Rear Pivot Mount, Magnetic Piston



Part no. A12020DP-M

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 3/4 inch bore, 1/8 NPT ports, double acting, rear pivot mount (pivot pin included), magnetic piston.

Cylinder, 3/4 in bore, double acting, rear pivot mount, Magnetic Piston				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A12010DP-M	1.0	4.75	0.2	$28.00
A12020DP-M	2.0	5.75	0.3	$29.50
A12030DP-M	3.0	6.75	0.3	$30.50
A12040DP-M	4.0	7.75	0.3	$32.00
A12050DP-M	5.0	8.75	0.4	$33.50
A12060DP-M	6.0	9.75	0.4	$35.00
A12080DP-M	8.0	11.75	0.5	$38.00
A12100DP-M	10.0	13.75	0.5	$41.00
A12120DP-M	12.0	15.75	0.6	$44.00

Specifications	
304 SS cylinder body	0.40 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 40.0 lb.	Retract force at 100 psi = 35.1 lb.

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-6	AN-58-18
Rear Pivot Mount		APB-2	–
Double End Mount	Front	AMB-6	AN-58-18
	Rear	AMB-6	AN-58-18

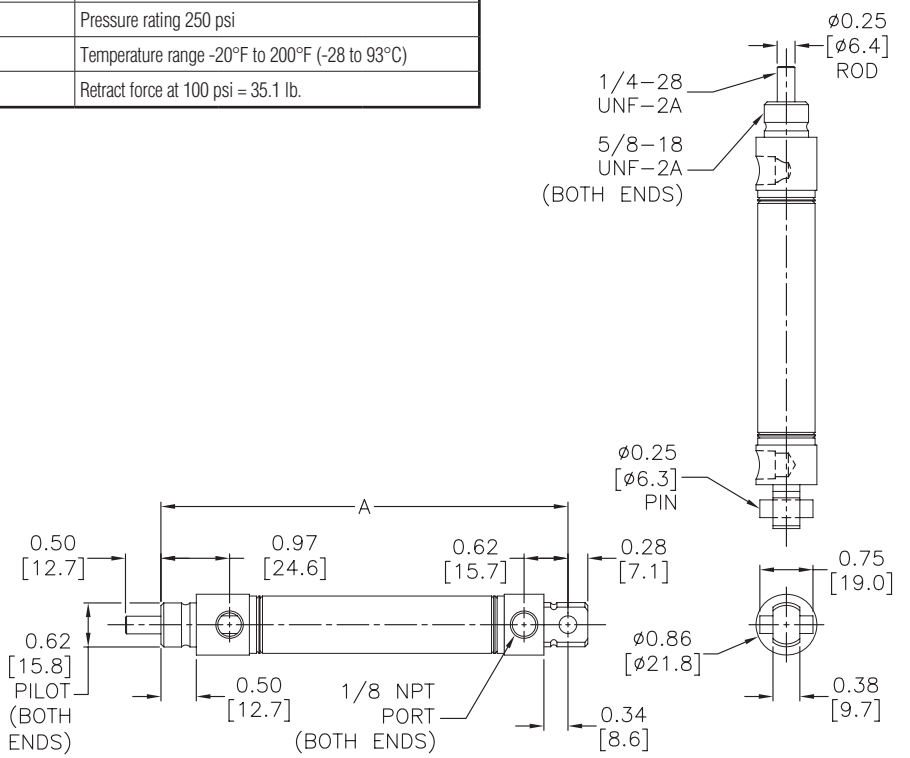
Cylinder rod clevis ARC-14-28

See end of 3/4" bore section for Accessories

Note: Drive pin out for double end mounting

Dimensions

inches [mm]



A-Series Pneumatic Cylinders
3/4 inch Bore Accessories

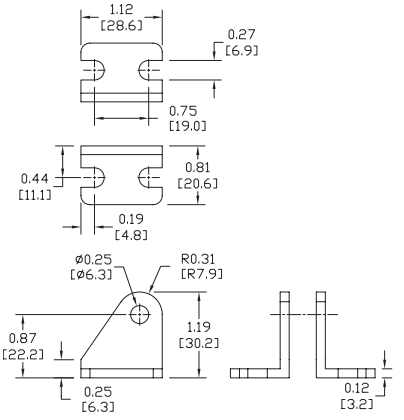
A-Series Pneumatic Cylinder 3/4 inch Bore Accessories				
Part Number	***Description***	***Pcs/Pkg***	***Wt (lb)***	***Price***
APB-2	Cylinder pivot mounting bracket without pivot pin used to mount 3/4, 7/8, and 1-1/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	$3.00
AMB-5	Cylinder mounting bracket used to mount 3/4 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	$2.50
AMB-6	Cylinder mounting bracket used to mount 3/4, 7/8, and 1-1/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	$3.00
ARC-14-28	Cylinder rod clevis and hex nut, 1/4-28 thread, for use with 3/4 and 7/8 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	$3.25
AN-58-18	Cylinder mounting nut with 5/8-18 UNF-2B threads used to mount 3/4, 7/8 and 1-1/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	$1.00
AN-12-20	Cylinder mounting nut with 1/2-10 UNF-2B threads used to mount 3/4 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.2	$1.00

Dimensions

inches [mm]

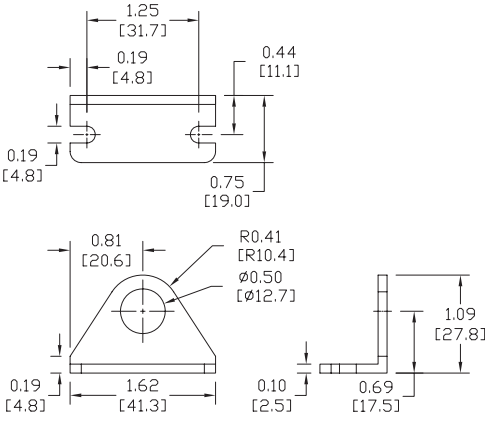
APB-2





AMB-5





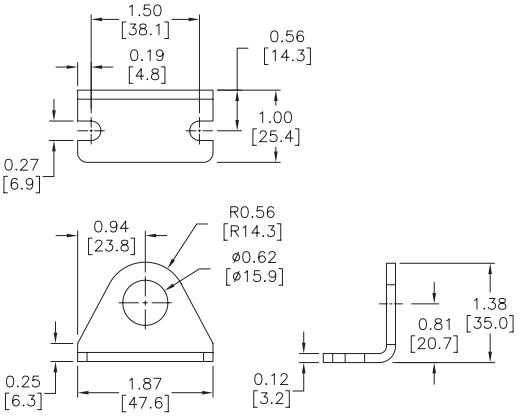
A-Series Pneumatic Cylinders
3/4 inch Bore Accessories

Dimensions

inches [mm]

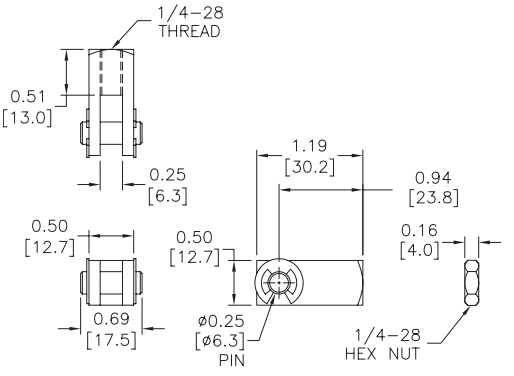
AMB-6





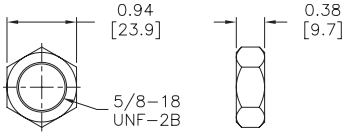
ARC-14-28





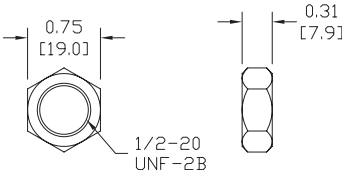
AN-58-18





AN-12-20





A-Series Pneumatic Cylinders 7/8 inch Bore

7/8 in. Bore, Single-acting, Spring Return, Front Nose Mount



Part no. A14020SN

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 7/8 inch bore, 1/8 NPT port, single acting, spring return, front nose mount.

Cylinder, 7/8 in. bore, single acting, spring return, front nose mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A14010SN	1.0	3.40	0.3	$14.00
A14020SN	2.0	4.96	0.4	$16.50
A14030SN	3.0	6.52	0.4	$19.00

Specifications	
304 SS cylinder body	0.60 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High strength carbon steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 60.0 lb.	Spring force = 3 lb. relaxed, 6 lb. compressed

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-6	AN-58-18*
Rear Pivot Mount		–	–
Double End Mount	Front	–	–
	Rear	–	–

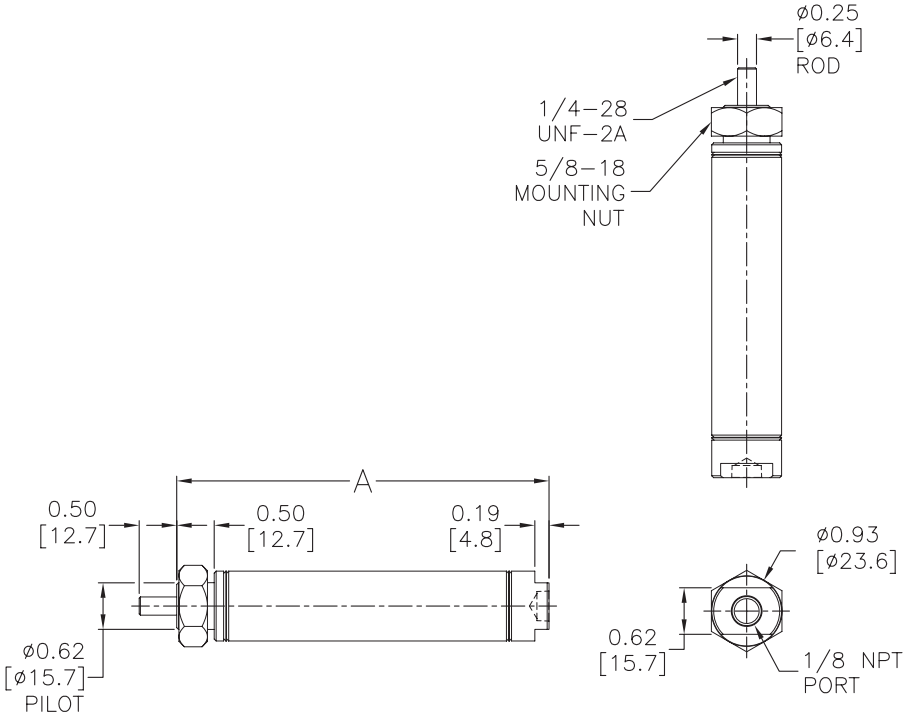
**** (1) Nut included with cylinder***

Cylinder rod clevis ARC-14-28

See end of 7/8" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 7/8 inch Bore

7/8 in. Bore, Single-acting, Spring Return, Rear Pivot Mount



Part no. A14020SP

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 7/8 inch bore, 1/8 NPT port, single acting, spring return, rear pivot mount (pivot pin included).

Cylinder, 7/8 in bore, single acting, spring return, rear pivot mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A14010SP	1.0	4.03	0.3	$17.50
A14020SP	2.0	5.59	0.4	$20.00
A14030SP	3.0	7.15	0.4	$22.00

Specifications	
304 SS cylinder body	0.60 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High strength carbon steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 60.0 lb.	Spring force = 3 lb. relaxed, 6 lb. compressed

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-6	AN-58-18
Rear Pivot Mount		APB-2	–
Double End Mount	Front	AMB-6	AN-58-18
	Rear	AMB-6	AN-58-18

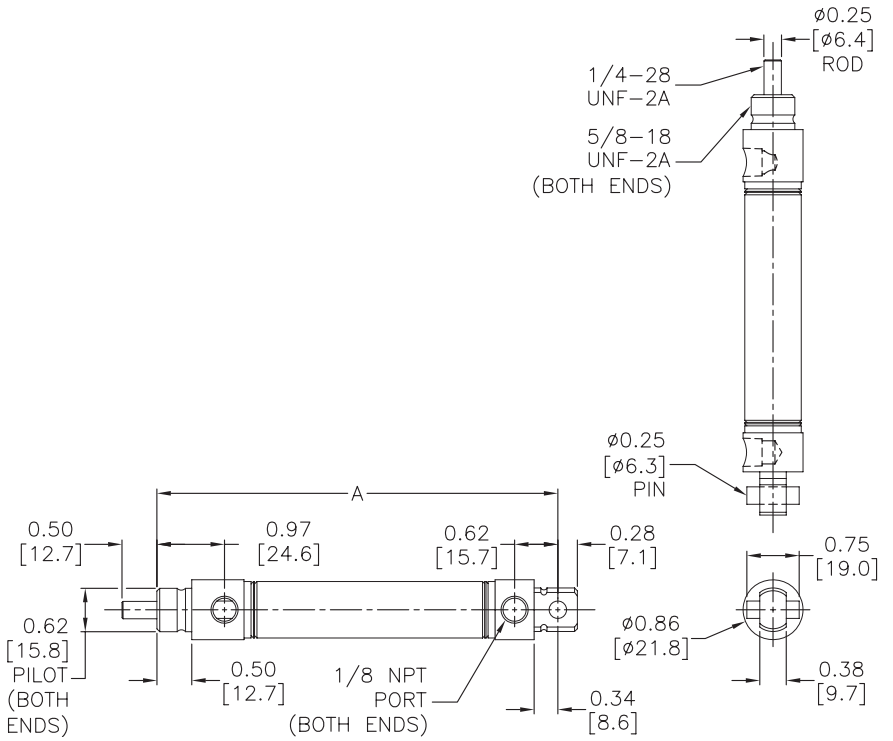
Cylinder rod clevis ARC-14-28

See end of 7/8" bore section for Accessories

Note: Drive pin out for double end mounting

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 7/8 inch Bore

7/8 in. Bore, Double-acting, Front Nose Mount



Part no. A14020DN

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 7/8 inch bore, 1/8 NPT ports, double acting, front nose mount.

Cylinder, 7/8 in bore, double acting, front nose mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A14010DN	1.0	3.94	0.3	$17.50
A14020DN	2.0	4.94	0.3	$19.00
A14030DN	3.0	5.94	0.3	$20.50
A14040DN	4.0	6.94	0.4	$21.50

Specifications	
304 SS cylinder body	0.60 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High strength carbon steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 60.0 lb.	Retract force at 100 psi = 55.1 lb.

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-6	AN-58-18*
Rear Pivot Mount		–	–
Double End Mount	Front	–	–
	Rear	–	–

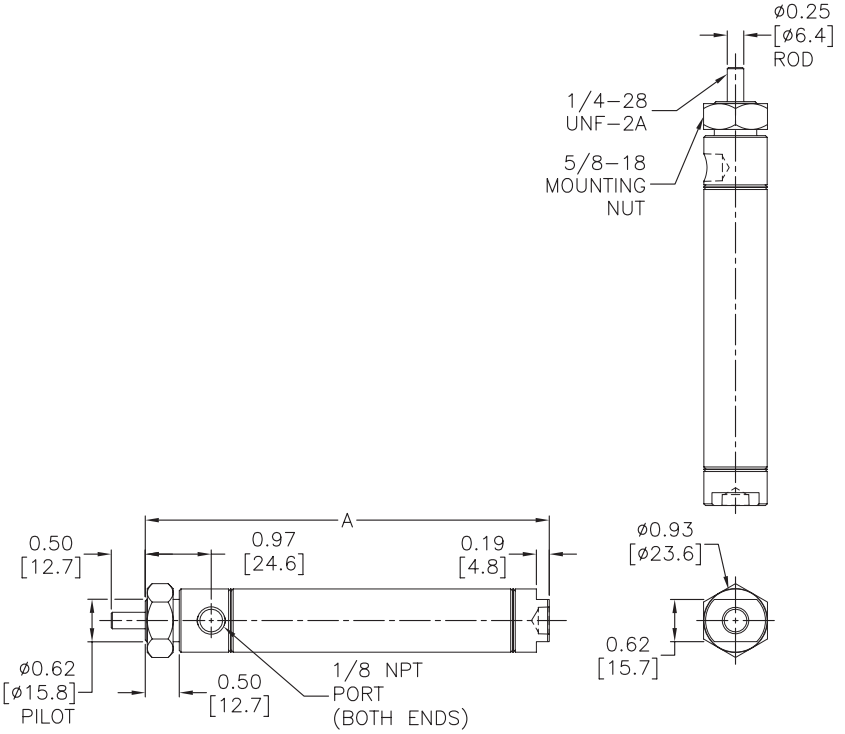
**** (1) Nut included with cylinder***

Cylinder rod clevis ARC-14-28

See end of 7/8" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 7/8 inch Bore

7/8 in. Bore, Double-acting, Double End Mount



Part no. A14020DD

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 7/8 inch bore, 1/8 NPT ports, double acting, double end mount.

Cylinder, 7/8 in bore, double acting, double end mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A14010DD	1.0	4.56	0.4	$22.50
A14020DD	2.0	5.56	0.4	$24.00
A14030DD	3.0	6.56	0.4	$25.00
A14040DD	4.0	7.56	0.4	$27.50

Specifications	
304 SS cylinder body	0.60 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 60.0 lb.	Retract force at 100 psi = 55.1 lb.

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-6	AN-58-18*
Rear Pivot Mount		APBP-3	–
Double End Mount	Front	AMB-6	AN-58-18*
	Rear	AMB-6	AN-58-18*

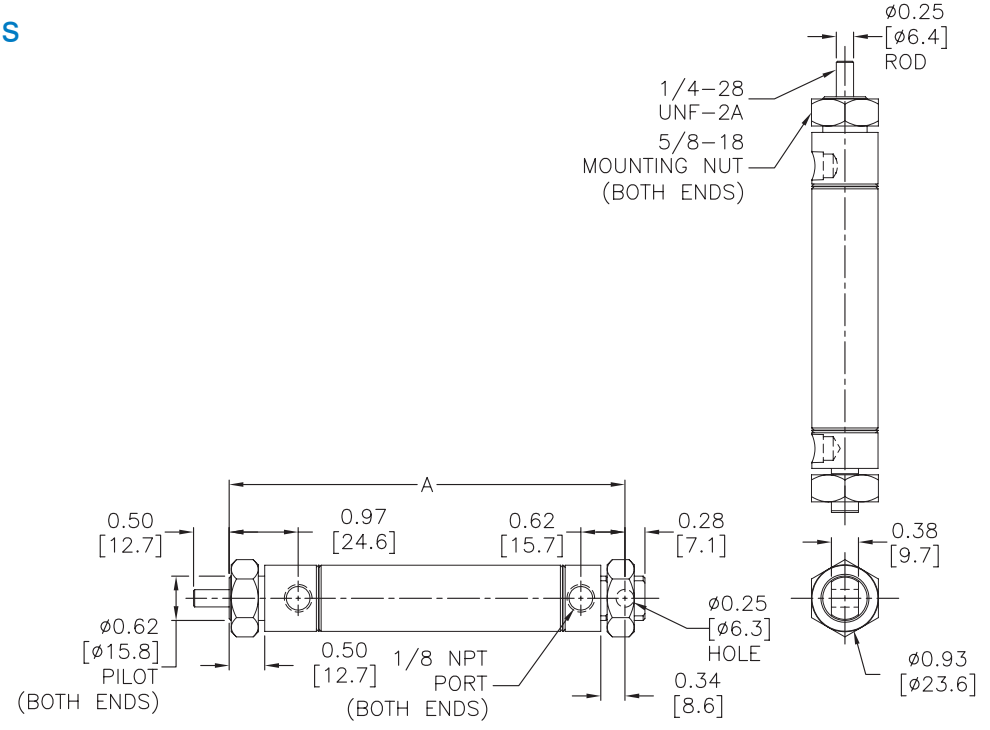
**** (2) Nut included with cylinder***

Cylinder rod clevis ARC-14-28

See end of 7/8" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 7/8 inch Bore

7/8 in. Bore, Double-acting, Double end Mount, Magnetic Piston



Part no. A14020DD-M

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 7/8 inch bore, 1/8 NPT ports, double acting, double end mount, magnetic piston.

Cylinder, 7/8 in bore, double acting, double end mount, magnetic piston				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A14010DD-M	1.0	4.56	0.4	$31.00
A14020DD-M	2.0	5.56	0.4	$32.50
A14030DD-M	3.0	6.56	0.4	$34.00
A14040DD-M	4.0	7.56	0.4	$35.50

Specifications	
304 SS cylinder body	0.60 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 60.0 lb.	Retract force at 100 psi = 55.1 lb.

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-6	AN-58-18*
Rear Pivot Mount		APBP-3	–
Double End Mount	Front	AMB-6	AN-58-18*
	Rear	AMB-6	AN-58-18*

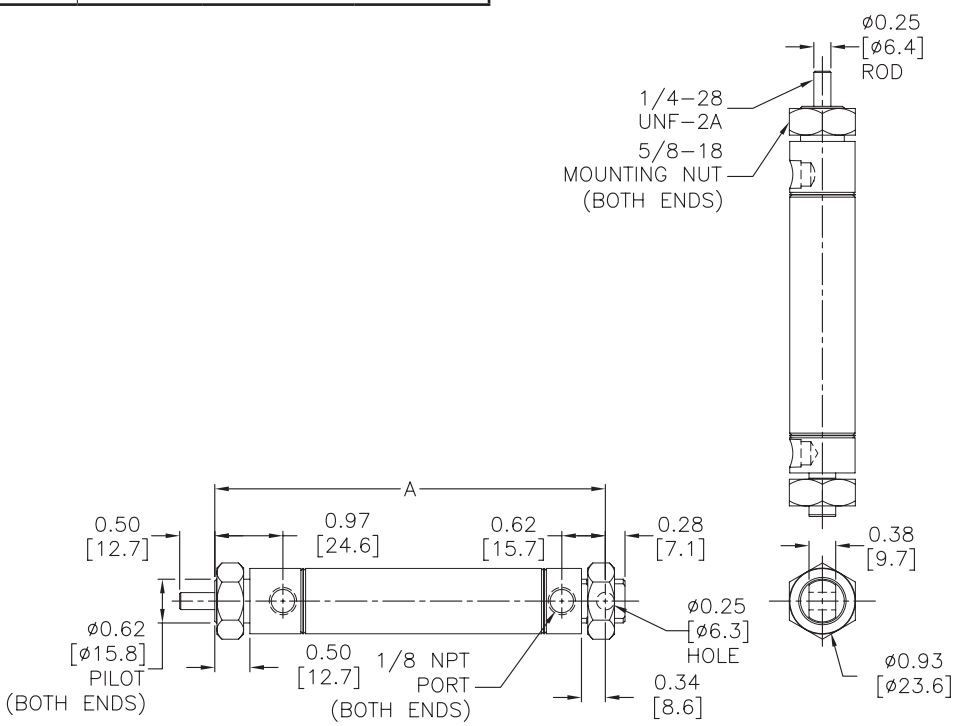
**** (2) Nuts included with cylinder***

Cylinder rod clevis ARC-14-28

See end of 7/8" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 7/8 inch Bore Accessories

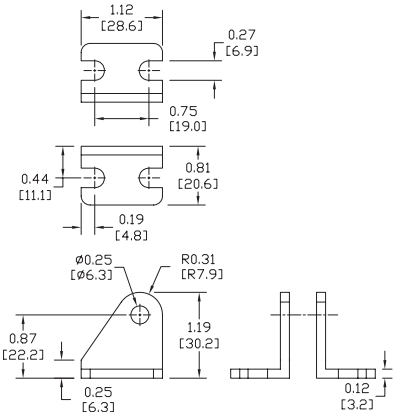
A-Series Pneumatic Cylinder 7/8 inch Bore Accessories				
Part Number	***Description***	***Pcs/Pkg***	***Wt (lb)***	***Price***
APB-2	Cylinder pivot mounting bracket without pivot pin used to mount 3/4, 7/8, and 1-1/16 inch bore, NITRA pneumatic, stainless stee,l round body, interchangeable, non-repairable cylinders.	1	0.1	$3.00
AMB-6	Cylinder mounting bracket used to mount 3/4, 7/8, and 1-1/16 inch bore NITRA pneumatic, stainless steel, round body, interchangeable, non-repairable cylinders.	1	0.1	$3.00
APBP-3	Cylinder pivot mounting bracket with pivot pin used to mount 7/8 inch bore NITRA pneumatic, stainless steel, round body, interchangeable, non-repairable cylinders.	1	0.1	$3.25
ARC-14-28	Cylinder rod clevis and hex nut, 1/4-28 thread, for use with 3/4 and 7/8 inch bore NITRA pneumatic, stainless steel, round body, interchangeable, non-repairable cylinders.	1	0.1	$3.25
AN-58-18	Cylinder mounting nut with 5/8-18 UNF-2B threads used to mount 3/4, 7/8 and 1-1/16 inch bore NITRA pneumatic, stainless steel, round body, interchangeable, non-repairable cylinders.	1	0.1	$1.00

Dimensions

inches [mm]

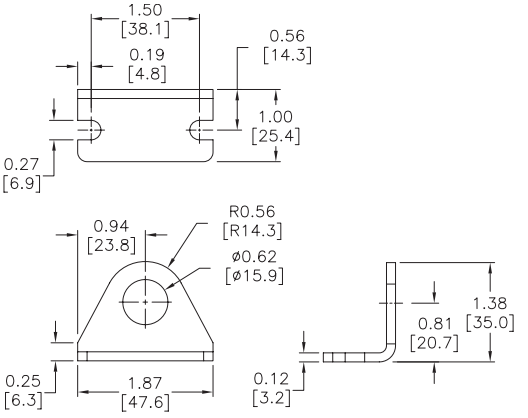
APB-2





AMB-6





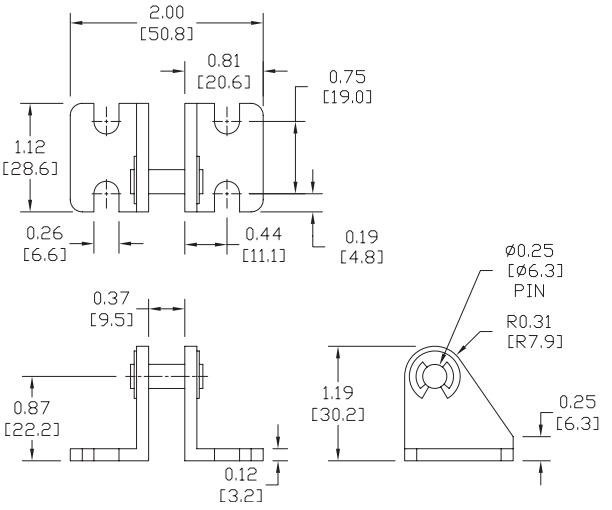
A-Series Pneumatic Cylinders 7/8 inch Bore Accessories

Dimensions

inches [mm]

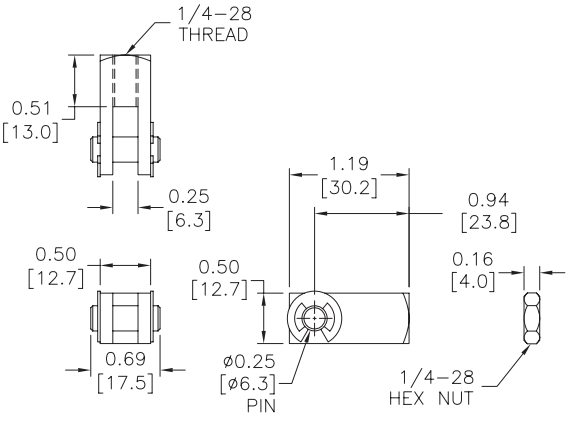
APBP-3





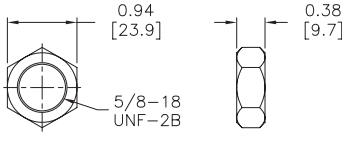
ARC-14-28





AN-58-18





A-Series Pneumatic Cylinders 1-1/16 inch Bore

1-1/16 in. Bore, Single-Acting, Spring Return, Front Nose Mount



Part no. A17020SN

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/16 inch bore, 1/8 NPT port, single acting, spring return, front nose mount.

Cylinder, 1-1/16 in bore, single acting, spring return, front nose mount				
Part Number	***Stroke Length (in)***	***"A" (in)***	***Weight (lbs)***	***Price***
A17010SN	1.0	3.50	0.3	$15.00
A17020SN	2.0	5.06	0.5	$17.50
A17030SN	3.0	6.62	0.6	$20.00

Specifications	
304 SS cylinder body	0.90 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High strength carbon steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 90.0 lb.	Spring force = 3 lb. relaxed, 6 lb. compressed

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-6	AN-58-18*
Rear Pivot Mount		–	–
Double End Mount	Front	–	–
	Rear	–	–

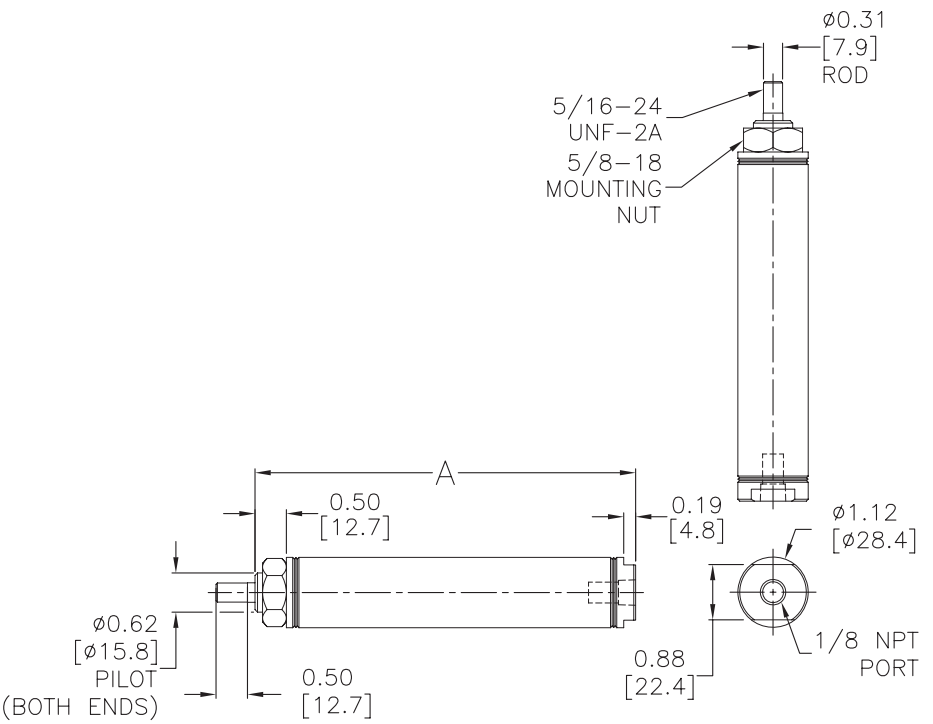
**** (1) Nut included with cylinder***

Cylinder rod clevis ARC-516-24

See end of 1-1/16" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 1-1/16 inch Bore

1-1/16 in. Bore, Single-acting, Spring Return, Rear Pivot Mount



Part no. A17020SP

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/16 inch bore, 1/8 NPT port, single acting, spring return, rear pivot mount (pivot pin included).

Cylinder, 1-1/16 in bore, single acting, spring return, rear pivot mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A17010SP	1.0	4.22	0.4	$18.50
A17020SP	2.0	5.78	0.5	$20.50
A17030SP	3.0	7.34	0.6	$23.00

Specifications	
304 SS cylinder body	0.90 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High strength carbon steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 90.0 lb.	Spring force = 3 lb. relaxed, 6 lb. compressed

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-6	AN-58-18
Rear Pivot Mount		APB-2	–
Double End Mount	Front	AMB-6	AN-58-18
	Rear	AMB-6	AN-58-18

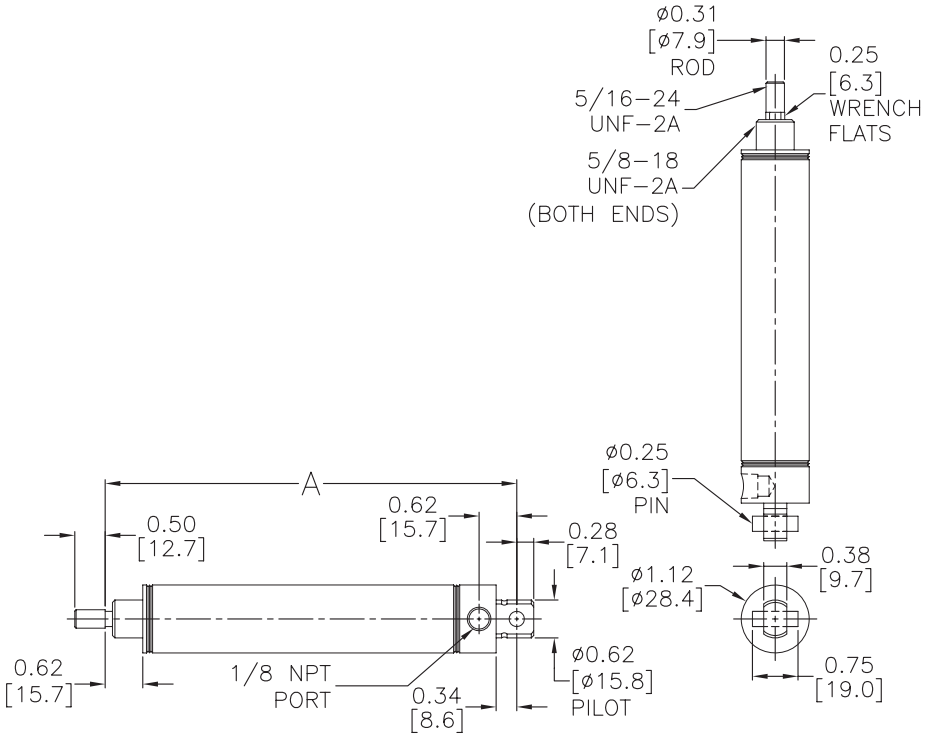
Cylinder rod clevis ARC-516-24

See end of 1-1/16" bore section for Accessories

Note: Drive pin out for double end mounting

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 1-1/16 inch Bore

1-1/16 in. Bore, Double-acting, Front Nose Mount



Part no. A17020DN

NITRA pneumatic stainless steel round body, interchangeable, 1-1/16 inch bore, 1/8 NPT ports, double acting, front nose mount.

Cylinder, 1-1/16 in bore, double acting, front nose mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A17005DN	0.5	3.62	0.4	$18.00
A17010DN	1.0	4.12	0.4	$18.50
A17020DN	2.0	5.12	0.4	$20.00
A17030DN	3.0	6.12	0.5	$21.50
A17040DN	4.0	7.12	0.5	$22.50
A17050DN	5.0	8.12	0.6	$24.00
A17060DN	6.0	9.12	0.6	$25.50
A17080DN	8.0	11.12	0.7	$29.50
A17100DN	10.0	13.12	0.8	$32.00
A17120DN	12.0	15.12	0.9	$35.00

Specifications	
304 SS cylinder body	0.90 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High Strength carbon steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 90.0 lb.	Retract force at 100 psi = 82.3 lb.

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-6	AN-58-18*
Rear Pivot Mount		–	–
Double End Mount	Front	–	–
	Rear	–	–

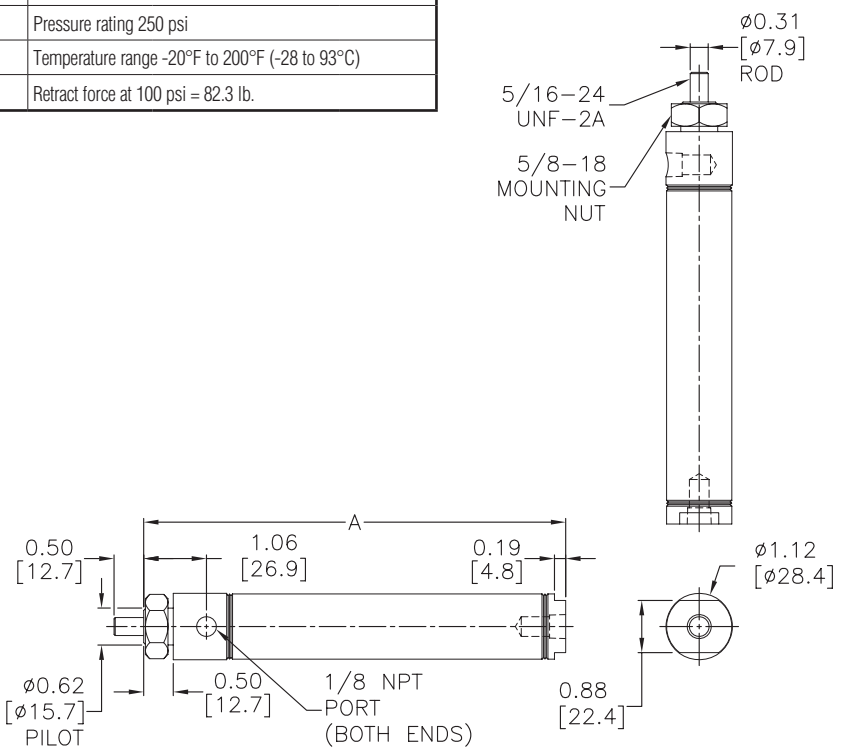
**** (1) Nut included with cylinder***

Cylinder rod clevis ARC-516-24

See end of 1-1/16" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 1-1/16 inch Bore

1-1/16 in. Bore, Double-acting, Rear Pivot Mount



Part no. A17020DP

NITRA pneumatic stainless steel round body, interchangeable, 1-1/16 inch bore, 1/8 NPT ports, double acting, rear pivot mount (pivot pin included).

Cylinder, 1-1/16 in bore, double acting, rear pivot mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A17010DP	1.0	4.84	0.4	$21.50
A17020DP	2.0	5.84	0.4	$23.00
A17030DP	3.0	6.84	0.5	$24.50
A17040DP	4.0	7.84	0.5	$27.00
A17050DP	5.0	8.84	0.6	$28.50
A17060DP	6.0	9.84	0.6	$29.50
A17080DP	8.0	11.84	0.7	$32.50
A17100DP	10.0	13.84	0.8	$35.50
A17120DP	12.0	15.84	0.9	$38.50

Specifications	
304 SS cylinder body	0.90 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High strength carbon steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 90.0 lb.	Retract force at 100 psi = 82.3 lb.

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-6	AN-58-18
Rear Pivot Mount		APB-2	–
Double End Mount	Front	AMB-6	AN-58-18
	Rear	AMB-6	AN-58-18

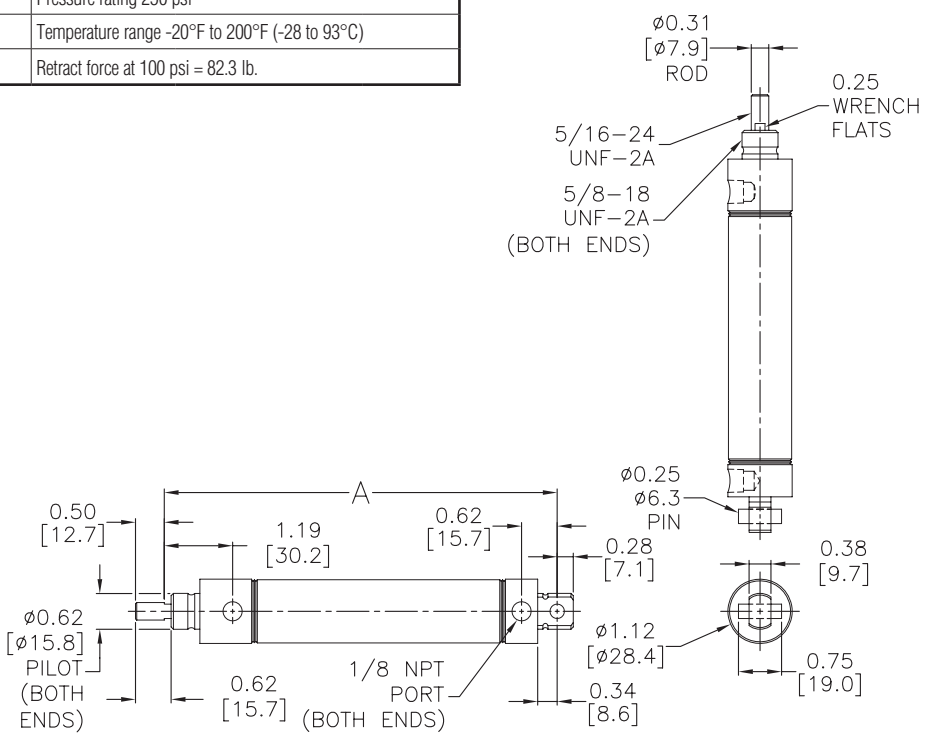
Cylinder rod clevis ARC-516-24

See end of 1-1/16" bore section for Accessories

Note: Drive pin out for double end mounting

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 1-1/16 inch Bore

1-1/16 in. Bore, Double-acting, Rear Pivot Mount, Magnetic Piston



Part no. A17020DP-M

NITRA pneumatic stainless steel round body, interchangeable, 1-1/16 inch bore, 1/8 NPT ports, double acting, rear pivot mount, magnetic piston (pivot pin included).

Cylinder, 1-1/16 in bore, double acting, rear pivot mount, magnetic piston				
Part Number	***Stroke Length (in)***	***"A" (in)***	***Weight (lbs)***	***Price***
A17010DP-M	1.0	4.84	0.4	$32.50
A17020DP-M	2.0	5.84	0.4	$34.00
A17030DP-M	3.0	6.84	0.5	$35.50
A17040DP-M	4.0	7.84	0.5	$37.00
A17050DP-M	5.0	8.84	0.6	$38.50
A17060DP-M	6.0	9.84	0.6	$40.00
A17080DP-M	8.0	11.84	0.7	$43.00
A17100DP-M	10.0	13.84	0.8	$45.50
A17120DP-M	12.0	15.84	0.9	$49.00

Specifications	
304 SS cylinder body	0.90 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 90.0 lb.	Retract force at 100 psi = 82.3 lb.

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-6	AN-58-18
Rear Pivot Mount		APB-2	–
Double End Mount	Front	AMB-6	AN-58-18
	Rear	AMB-6	AN-58-18

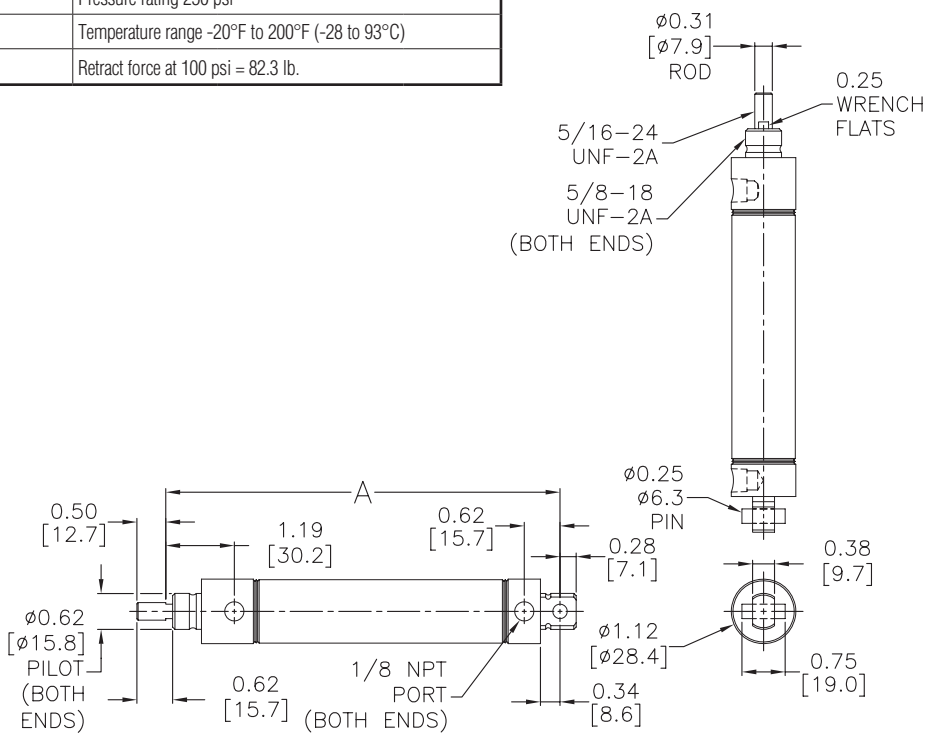
Cylinder rod clevis ARC-516-24

See end of 1-1/16" bore section for Accessories

Note: Drive pin out for double end mounting

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 1-1/16 inch Bore Accessories

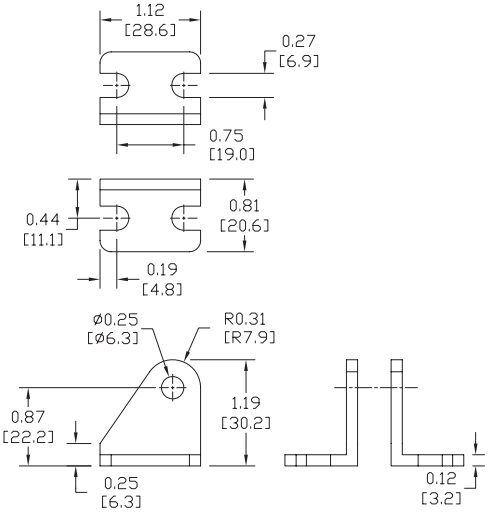
A-Series Pneumatic Cylinder 1-1/16 inch Bore Accessories				
Part Number	***Description***	***Pcs/Pkg***	***Wt (lb)***	***Price***
APB-2	Cylinder pivot mounting bracket without pivot pin used to mount 3/4, 7/8, and 1-1/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.2	$3.00
AMB-6	Cylinder mounting bracket used to mount 3/4, 7/8, and 1-1/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	$3.00
ARC-516-24	Cylinder rod clevis and hex nut, 5/16-24 thread, for use with 1-1/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	$3.25
AN-58-18	Cylinder mounting nut with 5/8-18 UNF-2B threads used to mount 3/4, 7/8 and 1-1/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	$1.00

Dimensions

inches [mm]

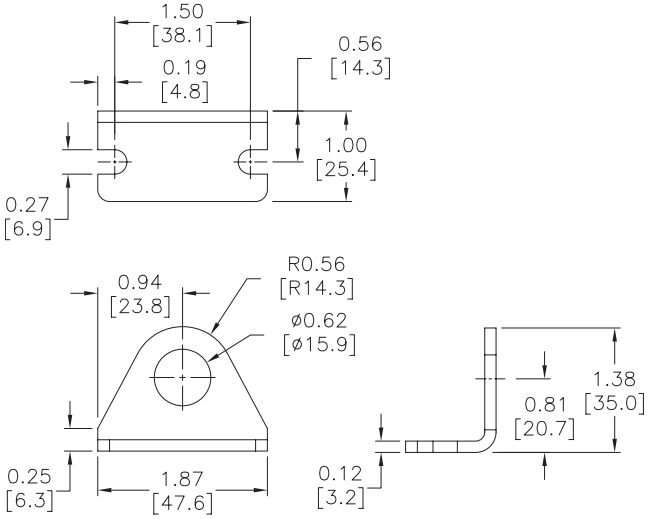
APB-2





AMB-6





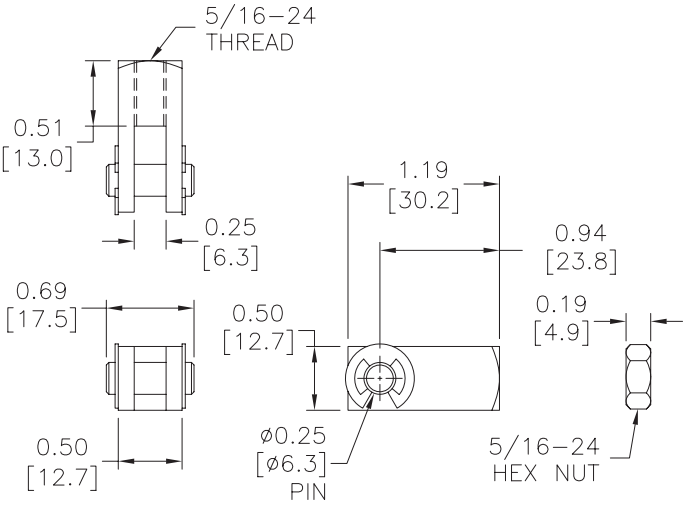
A-Series Pneumatic Cylinders
1-1/16 inch Bore Accessories

Dimensions

inches [mm]

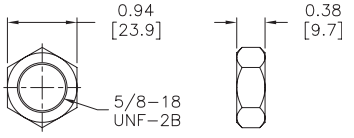
ARC-516-24





AN-58-18





A-Series Pneumatic Cylinders 1-1/4 inch Bore

1-1/4 in. Bore, Single-acting, Spring Return, Front Nose Mount



Part no. A20020SN

NITRA pneumatic stainless steel round body interchangeable, non-repairable cylinder, 1-1/4 inch bore, 1/8 NPT port, single acting, spring return, front nose mount.

Cylinder, 1-1/4 in bore, single acting, spring return, front nose mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A20010SN	1.0	4.47	0.6	$23.50
A20020SN	2.0	6.28	0.8	$27.50
A20030SN	3.0	8.09	1.0	$30.00

Specifications	
304 SS cylinder body	1.2 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High strength carbon steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 120.0 lb.	Spring force = 7.5 lb. relaxed, 15 lb. compressed.

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-7	AN-34-16*
Rear Pivot Mount		–	–
Double End Mount	Front	–	–
	Rear	–	–

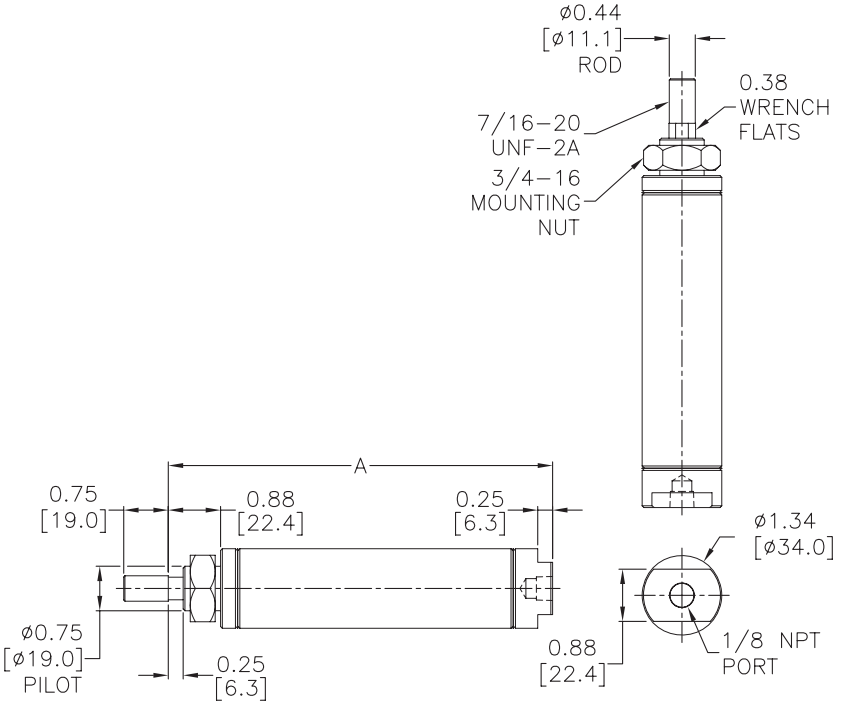
**** (1) Nut included with cylinder***

Cylinder rod clevis ARC-716-20

See end of 1-1/4" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 1-1/4 inch Bore

1-1/4 in. Bore, Single-acting, Spring Return, Double End Mount



Part no. A20020SD

NITRA pneumatic stainless steel round body interchangeable, non-repairable cylinder, 1-1/4 inch bore, 1/8 NPT port, single acting, spring return, double end mount.

Cylinder, 1-1/4 in bore, single acting, spring return, double end mount				
Part Number	***Stroke Length (in)***	***"A" (in)***	***Weight (lbs)***	***Price***
A20010SD	1.0	5.19	0.7	$29.00
A20020SD	2.0	7.00	1.0	$32.00
A20030SD	3.0	8.81	1.2	$35.00

Specifications	
304 SS cylinder body	1.2 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High strength carbon steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 120.0 lb.	Spring force = 7.5 lb. relaxed, 15 lb. compressed

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-7	AN-34-16*
Rear Pivot Mount		APBP-4	–
Double End Mount	Front	AMB-7	AN-34-16*
	Rear	AMB-7	AN-34-16*

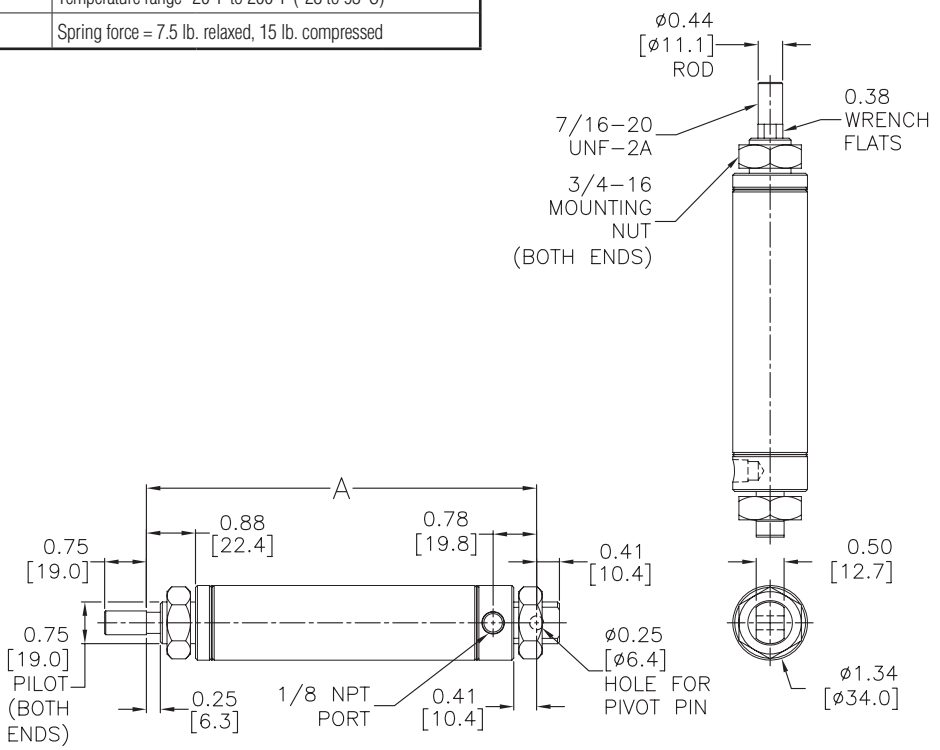
**** (2) Nuts included with cylinder***

Cylinder rod clevis ARC-716-20

See end of 1-1/4" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 1-1/4 inch Bore

1-1/4 in. Bore, Double-acting, Front Nose Mount



Part no. A20020DN

NITRA pneumatic stainless steel round body interchangeable, non-repairable cylinder, 1-1/4 inch bore, 1/8 NPT ports, double acting, front nose mount.

Cylinder, 1-1/4 in bore, double acting, front nose mount				
Part Number	***Stroke Length (in)***	***"A" (in)***	***Weight (lbs)***	***Price***
A20010DN	1.0	5.00	0.7	$28.50
A20020DN	2.0	6.00	0.7	$30.00
A20030DN	3.0	7.00	0.8	$32.00
A20040DN	4.0	8.00	0.9	$34.00
A20050DN	5.0	9.00	1.0	$35.50
A20060DN	6.0	10.0	1.1	$38.00
A20080DN	8.0	12.0	1.2	$41.50

Specifications	
304 SS cylinder body	1.2 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High strength carbon steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 120.0 lb.	Retract force at 100 psi = 105.0 lb.

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-7	AN-34-16*
Rear Pivot Mount		–	–
Double End Mount	Front	–	–
	Rear	–	–

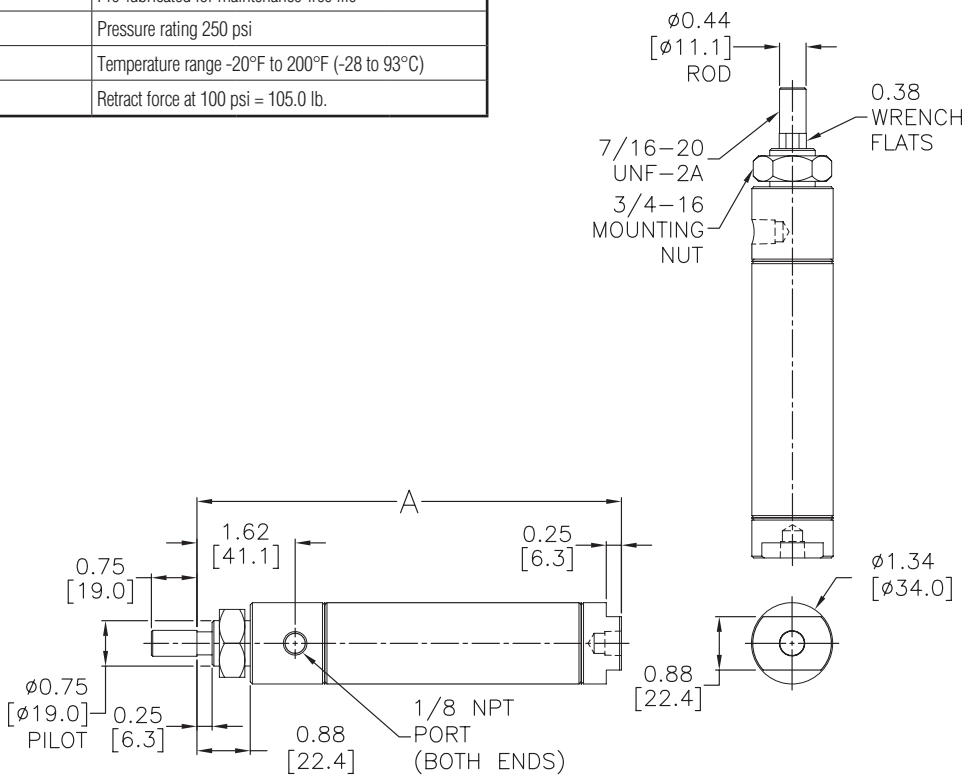
**** (1) Nut included with cylinder***

Cylinder rod clevis ARC-716-20

See end of 1-1/4" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 1-1/4 inch Bore

1-1/4 in. Bore, Double-acting, Double End Mount



Part no. A20020DD

NITRA pneumatic stainless steel round body interchangeable, non-repairable cylinder, 1-1/4 inch bore, 1/8 NPT ports, double acting, double end mount.

Cylinder, 1-1/4 in bore, double acting, double end mount				
Part Number	***Stroke Length (in)***	***"A" (in)***	***Weight (lbs)***	***Price***
A20010DD	1.0	5.72	0.8	$33.00
A20020DD	2.0	6.72	0.9	$35.00
A20030DD	3.0	7.72	1.0	$37.00
A20040DD	4.0	8.72	1.0	$39.00
A20050DD	5.0	9.72	1.1	$41.00
A20060DD	6.0	10.72	1.2	$42.50
A20080DD	8.0	12.72	1.4	$46.00
A20100DD	10.0	14.72	1.5	$50.50
A20120DD	12.0	16.72	1.7	$55.00

Specifications	
304 SS cylinder body	1.2 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High strength carbon steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 120.0 lb.	Retract force at 100 psi = 105.0 lb.

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-7	AN-34-16*
Rear Pivot Mount		APBP-4	–
Double End Mount	Front	AMB-7	AN-34-16*
	Rear	AMB-7	AN-34-16*

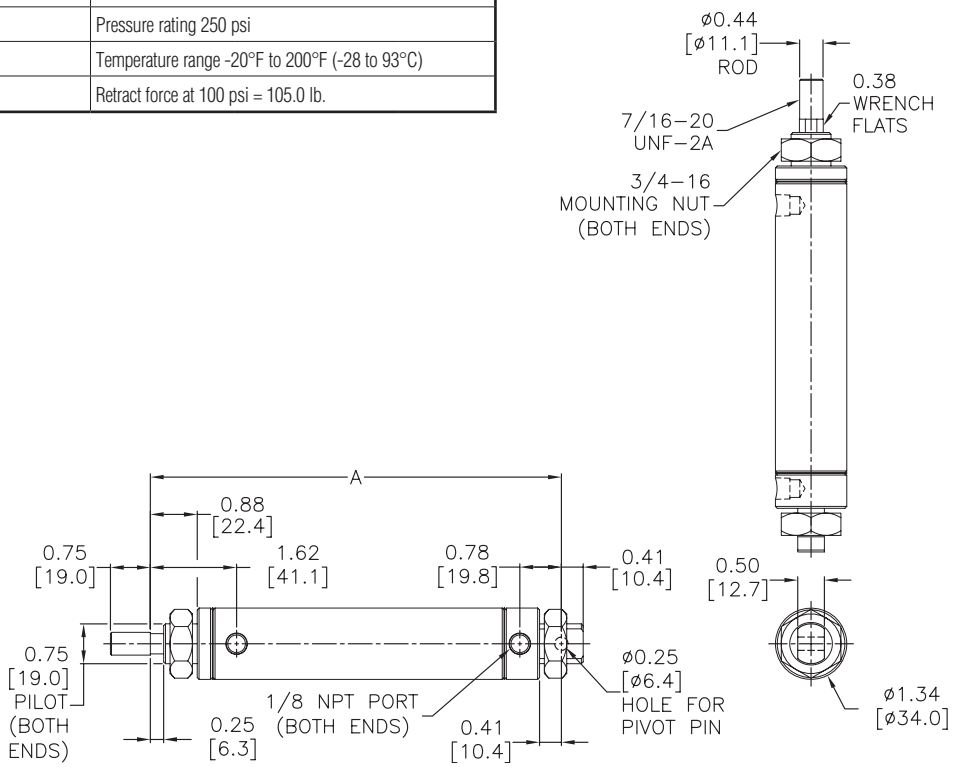
**** (2) Nuts included with cylinder***

Cylinder rod clevis ARC-716-20

See end of 1-1/4" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders
1-1/4 inch Bore

1-1/4 in. Bore, Double-acting, Double End Mount, Magnetic Piston



Part no. A20020DD-M

NITRA pneumatic stainless steel round body interchangeable, non-repairable cylinder, 1-1/4 inch bore, 1/8 NPT ports, double acting, double end mount, magnetic piston.

Cylinder, 1-1/4 in bore, double acting, double end mount, magnetic piston				
Part Number	***Stroke Length (in)***	***"A" (in)***	***Weight (lbs)***	***Price***
A20010DD-M	1.0	5.72	0.8	$43.50
A20020DD-M	2.0	6.72	0.9	$45.50
A20030DD-M	3.0	7.72	1.0	$47.50
A20040DD-M	4.0	8.72	1.0	$49.50
A20050DD-M	5.0	9.72	1.1	$51.00
A20060DD-M	6.0	10.72	1.2	$54.00
A20080DD-M	8.0	12.72	1.4	$57.00
A20100DD-M	10.0	14.72	1.5	$61.00
A20120DD-M	12.0	16.72	1.7	$64.00

Specifications	
304 SS cylinder body	1.2 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 120.0 lb.	Retract force at 100 psi = 105.0 lb.

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-7	AN-34-16*
Rear Pivot Mount		APBP-4	–
Double End Mount	Front	AMB-7	AN-34-16*
	Rear	AMB-7	AN-34-16*

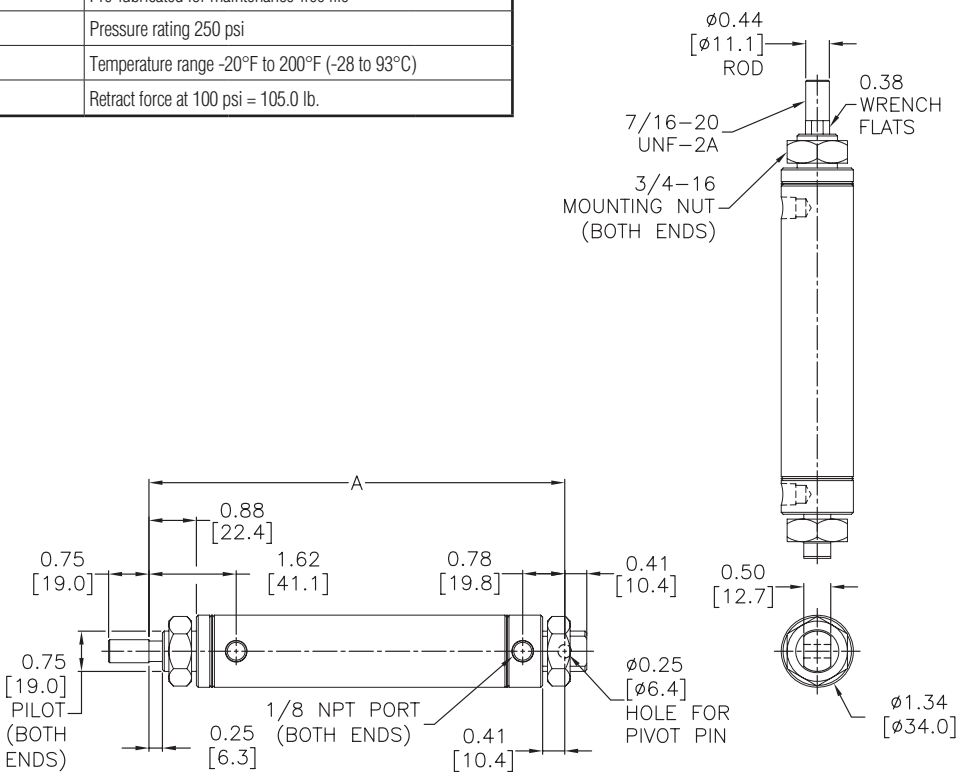
**** (2) Nuts included with cylinder***

Cylinder rod clevis ARC-716-20

See end of 1-1/4" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 1-1/4 inch Bore Accessories

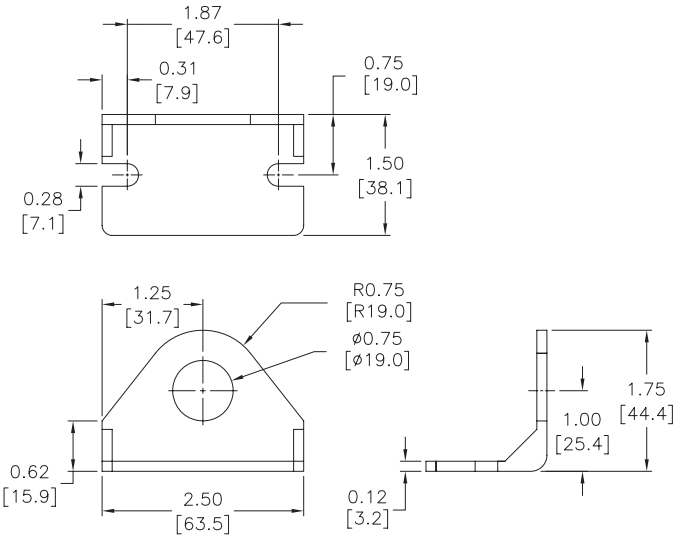
A-Series Pneumatic Cylinder 1-1/4 inch Bore Accessories				
Part Number	**Description**	**Pcs/Pkg**	**Wt (lb)**	**Price**
AMB-7	Cylinder mounting bracket used to mount 1-1/4 and 1-1/2 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.2	$4.50
APBP-4	Cylinder pivot mounting bracket with pivot pin used to mount 1-1/4 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	$6.00
ARC-716-20	Cylinder rod clevis and hex nut, 7/16-20 thread, for use with 1-1/4 and 1-1/2 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	$5.25
AN-34-16	Cylinder mounting nut with 3/4-16 UNF-2B threads used to mount 1-1/4 and 1-1/2 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	$1.00

Dimensions

inches [mm]

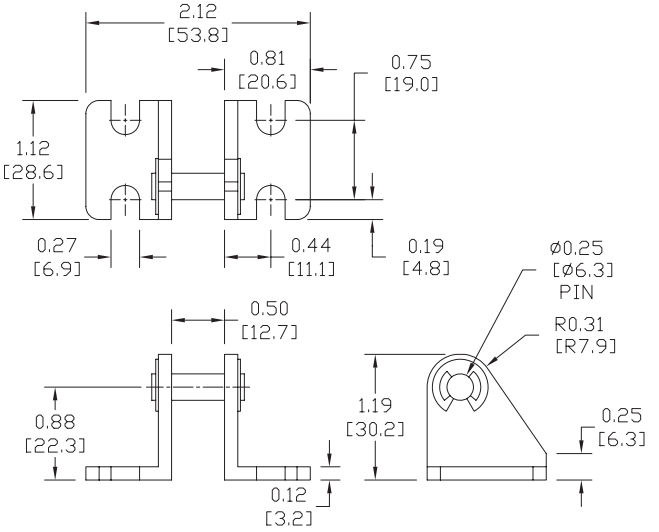
AMB-7





APBP-4





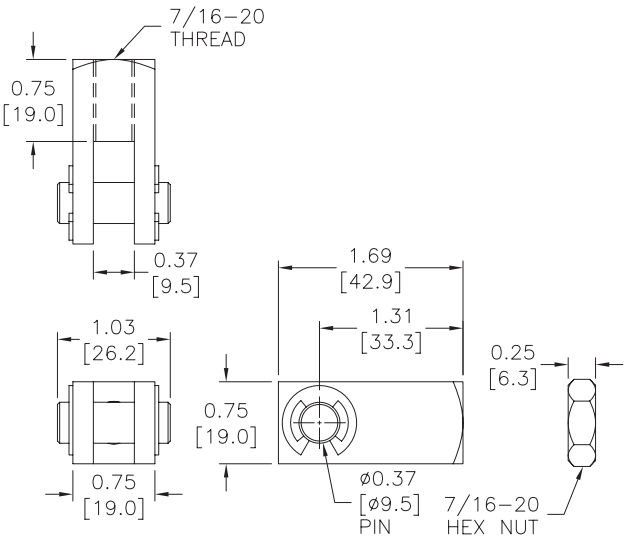
A-Series Pneumatic Cylinders
1-1/4 inch Bore Accessories

Dimensions

inches [mm]

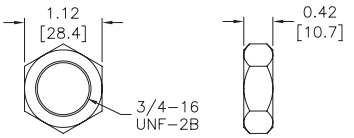
ARC-716-20





AN-34-16





A-Series Pneumatic Cylinders 1-1/2 inch Bore

1-1/2 in. Bore, Single-acting, Spring Return, Front Nose Mount



Part no. A24020SN

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/2 inch bore, 1/8 NPT port, single acting, spring return, front nose mount.

Cylinder, 1-1/2 in bore, single acting, spring return, front nose mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A24010SN	1.0	4.13	0.7	$27.00
A24020SN	2.0	5.82	0.9	$30.50
A24030SN	3.0	7.51	1.1	$34.00
A24040SN	4.0	9.20	1.3	$38.00
A24050SN	5.0	10.89	1.5	$41.50
A24060SN	6.0	12.58	1.8	$45.00

Specifications	
304 SS cylinder body	1.7 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High strength carbon steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 170.0 lb.	Spring force = 7.5 lb. relaxed, 14 lb. compressed

Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-7	AN-34-16*
Rear Pivot Mount		–	–
Double End Mount	Front	–	–
	Rear	–	–

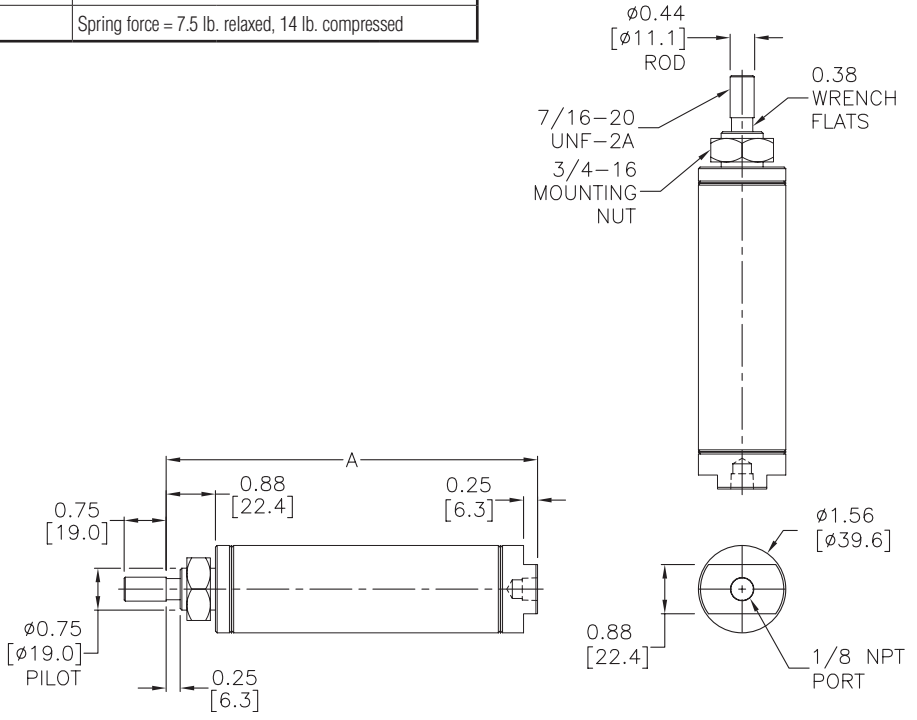
**** (1) Nut included with cylinder***

Cylinder rod clevis ARC-716-20

See end of 1-1/2" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders
1-1/2 inch Bore

1-1/2 in. Bore, Single-acting, Spring Return, Rear Pivot Mount



Part no. A24020SP

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/2 inch bore, 1/8 NPT port, single acting, spring return, rear pivot mount (pivot pin included). Cylinder cannot be double end mounted.

Cylinder, 1-1/2 in bore, single acting, spring return, rear pivot mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A24010SP	1.0	4.81	0.7	$31.00
A24020SP	2.0	6.50	0.9	$34.50
A24030SP	3.0	8.19	1.1	$38.50
A24040SP	4.0	9.88	1.3	$42.00
A24050SP	5.0	11.57	1.6	$45.50
A24060SP	6.0	13.26	1.8	$49.50

Specifications	
304 SS cylinder body	1.7 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High strength carbon steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 170.0 lb.	Spring force = 7.5 lb. relaxed, 14 lb. compressed

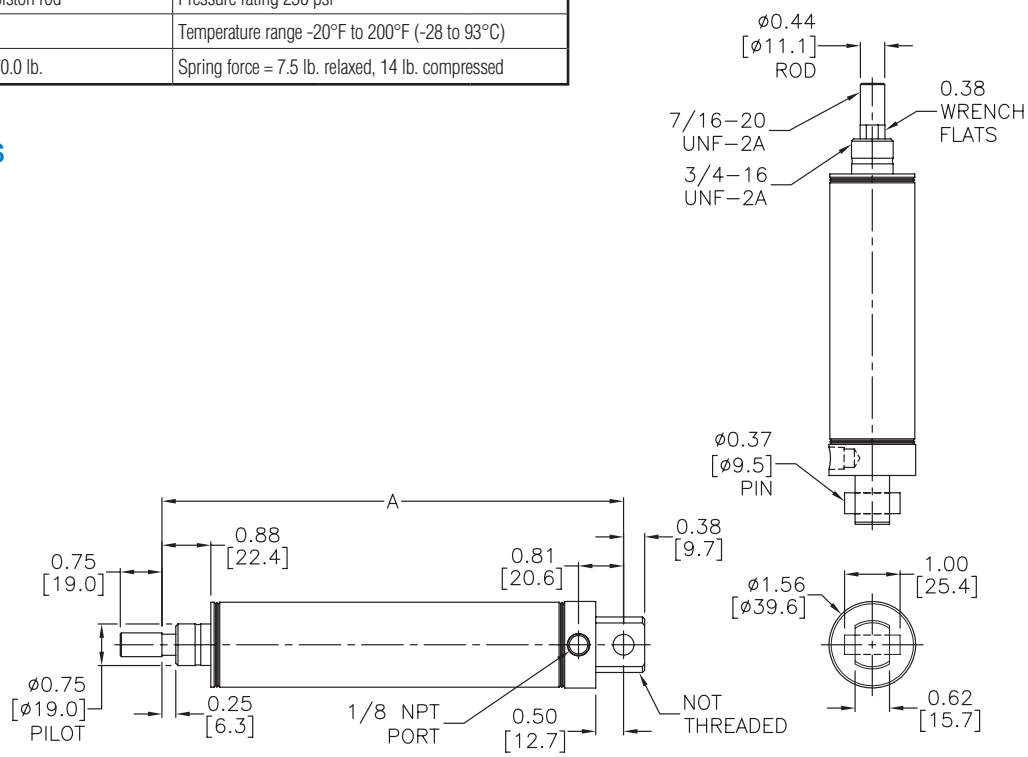
Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-7	AN-34-16
Rear Pivot Mount		APB-3	–
Double End Mount	Front	–	–
	Rear	–	–

Cylinder rod clevis ARC-716-20

See end of 1-1/2" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 1-1/2 inch Bore

1-1/2 in. Bore, Double-acting, Front Nose Mount



Part no. A24020DN

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/2 inch bore, 1/8 NPT ports, double acting, front nose mount.

Cylinder, 1-1/2 in bore, double acting, front nose mount				
Part Number	*Stroke Length (in.)*	*"A" (in)*	*Weight (lbs)*	*Price*
A24010DN	1.0	4.69	0.8	$30.50
A24015DN	1.5	5.19	0.8	$31.50
A24020DN	2.0	5.69	0.9	$32.50
A24030DN	3.0	6.69	0.9	$35.00
A24040DN	4.0	7.69	1.0	$37.50
A24050DN	5.0	8.69	1.1	$39.50
A24060DN	6.0	9.69	1.2	$42.00
A24070DN	7.0	10.69	1.3	$44.00
A24080DN	8.0	11.69	1.3	$46.00
A24090DN	9.0	12.69	1.4	$49.00
A24100DN	10.0	13.69	1.5	$51.00
A24110DN	11.0	14.69	1.6	$54.00
A24120DN	12.0	15.69	1.7	$56.00

Specifications	
304 SS cylinder body	1.7 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High strength carbon steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 170.0 lb.	Retract force at 100 psi = 155.0 lb.

Mount Style		*Bracket*	*Nut*
Front Nose Mount		AMB-7	AN-34-16*
Rear Pivot Mount		–	–
Double End Mount	Front	–	–
	Rear	–	–

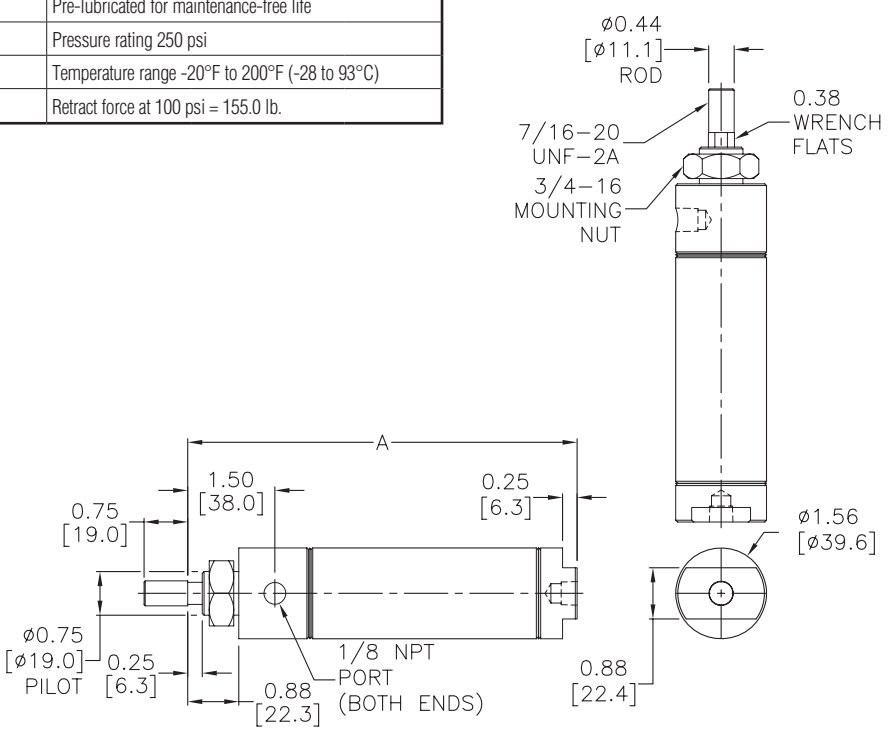
(1) Nut included with cylinder

Cylinder rod clevis ARC-716-20

See end of 1-1/2" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 1-1/2 inch Bore

1-1/2 in. Bore, Double-acting, Rear Pivot Mount



Part no. A24020DP

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/2 inch bore, 1/8 NPT ports, double acting, rear pivot mount (pivot pin included). Cylinder cannot be double end mounted.

Cylinder, 1-1/2 in bore, double acting, rear pivot mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A24010DP	1.0	5.38	0.8	$34.50
A24020DP	2.0	6.38	0.9	$37.00
A24030DP	3.0	7.38	1.0	$39.00
A24040DP	4.0	8.38	1.1	$41.50
A24050DP	5.0	9.38	1.1	$43.50
A24060DP	6.0	10.38	1.2	$45.50
A24070DP	7.0	11.38	1.3	$48.50
A24080DP	8.0	12.38	1.4	$50.50
A24090DP	9.0	13.38	1.5	$53.00
A24100DP	10.0	14.38	1.5	$56.00
A24120DP	12.0	16.38	1.7	$60.00

Specifications	
304 SS cylinder body	1.7 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High strength carbon steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 170.0 lb.	Retract force at 100 psi = 155.0 lb.

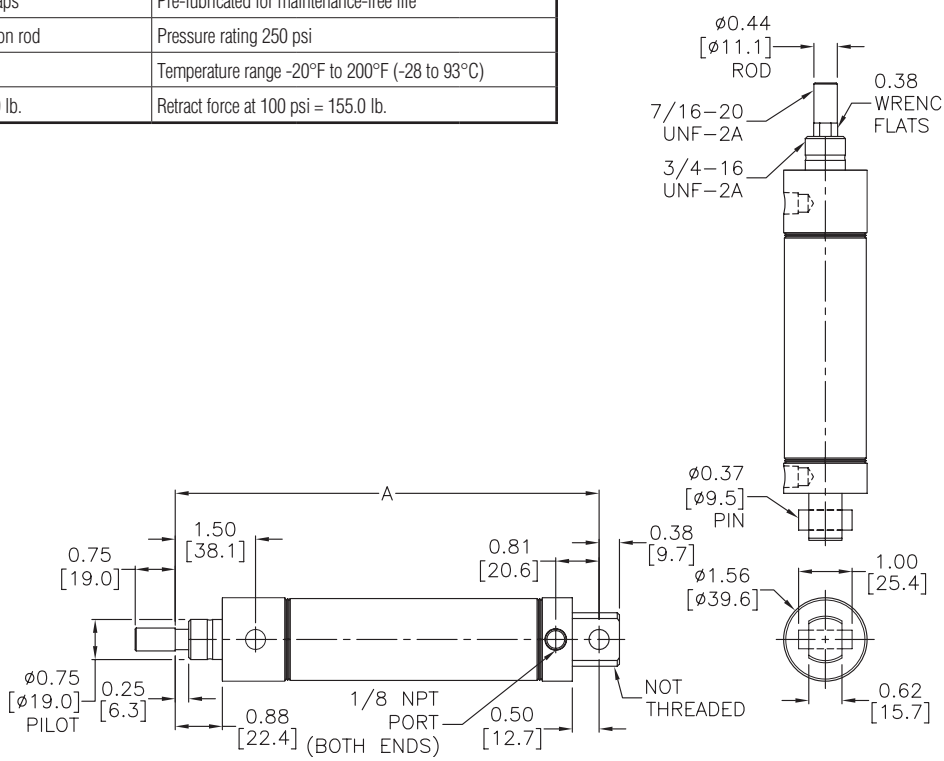
Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-7	AN-34-16
Rear Pivot Mount		APB-3	–
Double End Mount	Front	–	–
	Rear	–	–

Cylinder rod clevis ARC-716-20

See end of 1-1/2" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 1-1/2 inch Bore

1-1/2 in. Bore, Double-acting, Rear Pivot Mount, Magnetic Piston



Part no. A24020DP-M

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/2 inch bore, 1/8 NPT ports, double acting, rear pivot mount, magnetic piston (pivot pin included). Cylinder cannot be double end mounted.

Cylinder, 1-1/2 in bore, double acting, rear pivot mount, magnetic piston				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A24010DP-M	1.0	5.38	0.8	$46.50
A24020DP-M	2.0	6.38	0.9	$49.50
A24030DP-M	3.0	7.38	1.0	$51.50
A24040DP-M	4.0	8.38	1.1	$54.00
A24050DP-M	5.0	9.38	1.1	$57.00
A24060DP-M	6.0	10.38	1.2	$59.00
A24070DP-M	7.0	11.38	1.3	$54.00
A24080DP-M	8.0	12.38	1.4	$63.00
A24090DP-M	9.0	13.38	1.5	$65.00
A24100DP-M	10.0	14.38	1.5	$64.00
A24120DP-M	12.0	16.38	1.7	$72.00

Specifications	
304 SS cylinder body	1.7 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 170.0 lb.	Retract force at 100 psi = 155.0 lb.

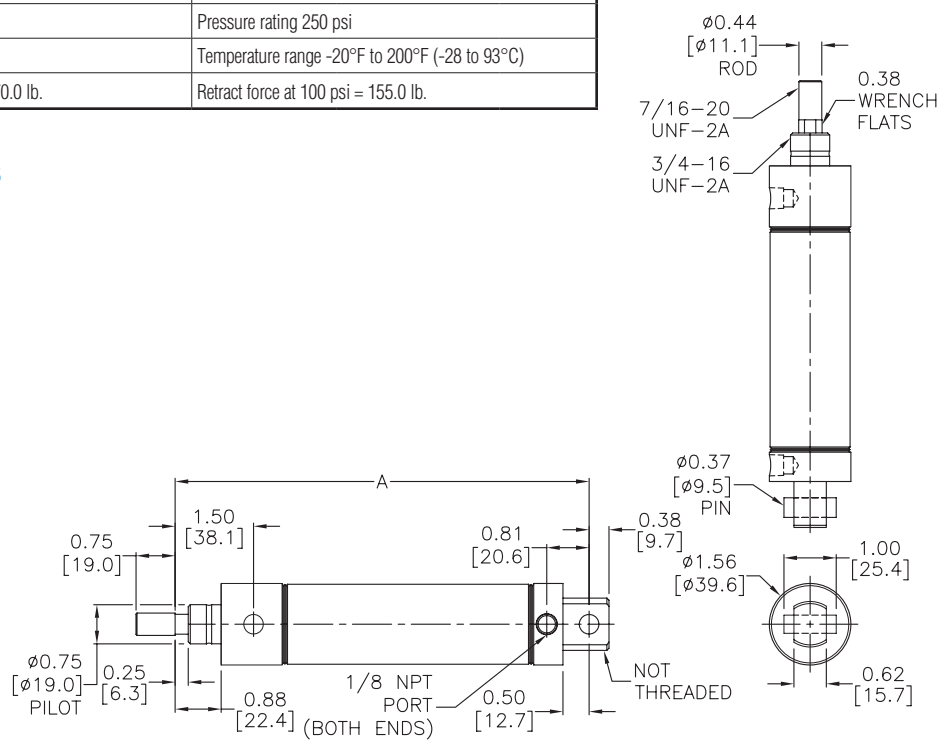
Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-7	AN-34-16
Rear Pivot Mount		APB-3	–
Double End Mount	Front	–	–
	Rear	–	–

Cylinder rod clevis ARC-716-20

See end of 1-1/2" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 1-1/2 inch Bore Accessories

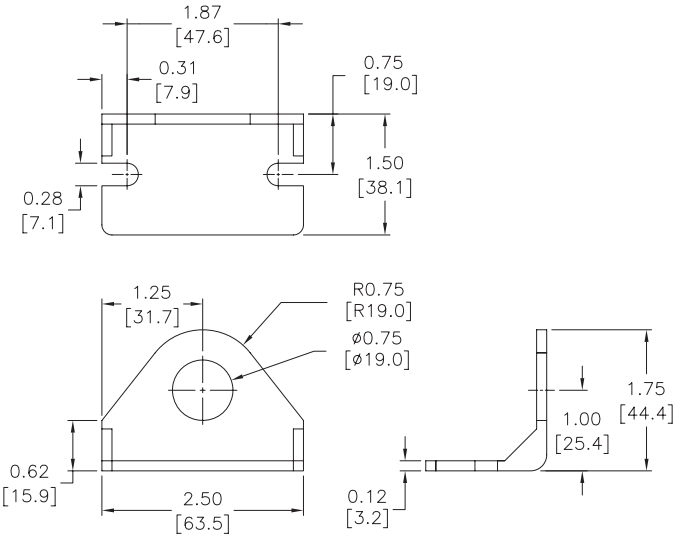
A-Series Pneumatic Cylinder 1-1/2 inch Bore Accessories				
Part Number	***Description***	***Pcs/Pkg***	***Wt (lb)***	***Price***
AMB-7	Cylinder mounting bracket used to mount 1-1/4 and 1-1/2 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.2	$4.50
APB-3	Cylinder pivot mounting bracket without pivot pin used to mount 1-1/2 bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.2	$5.75
ARC-716-20	Cylinder rod clevis and hex nut, 7/16-20 thread, for use with 1-1/4 and 1-1/2 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	$5.25
AN-34-16	Cylinder mounting nut with 3/4-16 UNF-2B threads used to mount 1-1/4 and 1-1/2 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	$1.00

Dimensions

inches [mm]

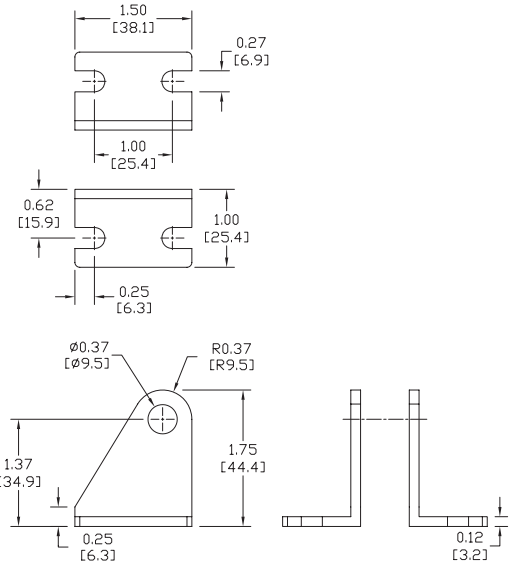
AMB-7





APB-3





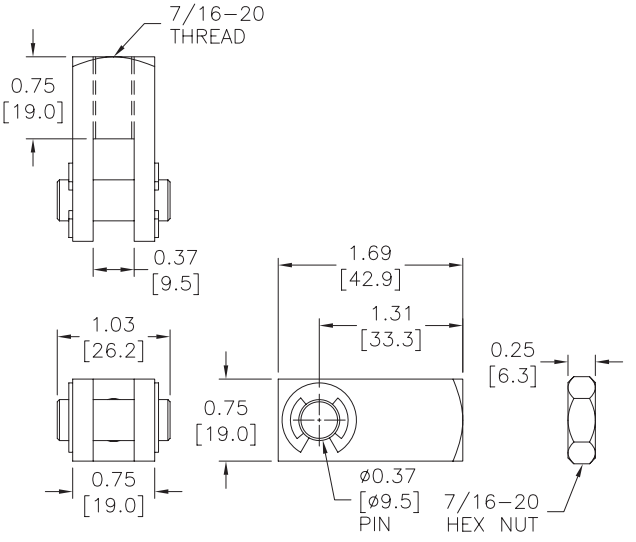
A-Series Pneumatic Cylinders
1-1/2 inch Bore Accessories

Dimensions

inches [mm]

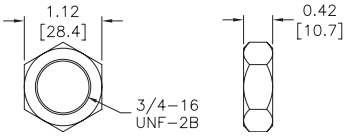
ARC-716-20





AN-34-16





A-Series Pneumatic Cylinders 2 inch Bore

2 in. Bore, Single-acting, Spring Return, Front Nose Mount



Part no. A32020SN

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 2 inch bore, 1/4 NPT port, single acting, spring return, front nose mount.

Cylinder, 2 in bore, single acting, spring return, front nose mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A32010SN	1.0	5.41	1.5	$51.50
A32020SN	2.0	7.41	1.9	$57.00
A32030SN	3.0	8.66	2.3	$62.00

Specifications	
304 SS cylinder body	3.1 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High strength carbon steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 310.0 lb.	Spring force = 15 lb. relaxed, 30 lb. compressed

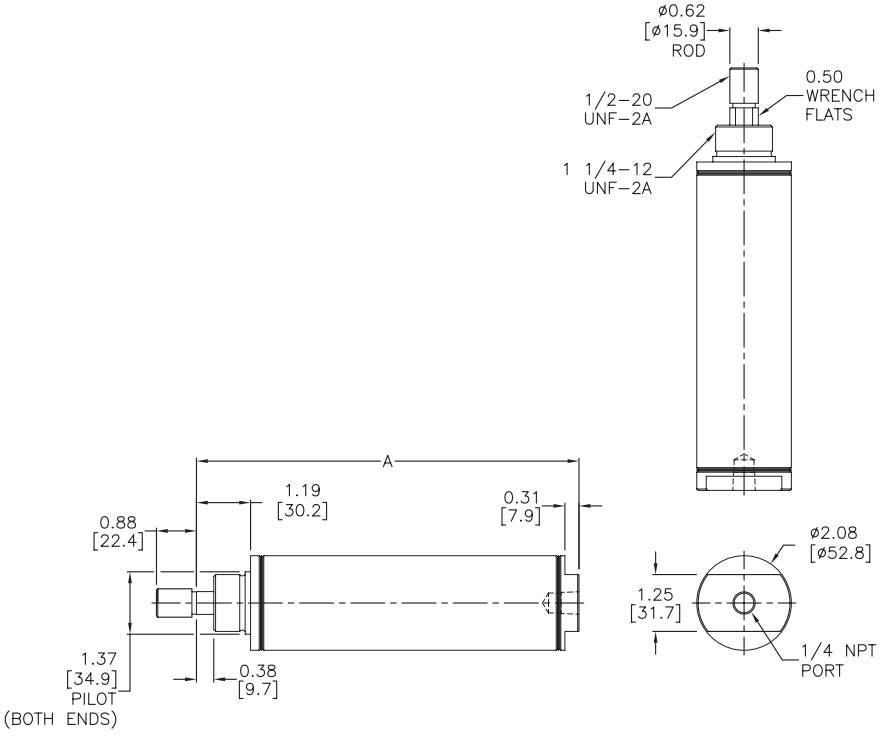
Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-11	AN-114-12
Rear Pivot Mount		–	–
Double End Mount	Front	–	–
	Rear	–	–

Cylinder rod clevis ARC-12-20

See end of 2" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 2 inch Bore

2 in. Bore, Single-acting, Spring Return, Double End Mount



Part no. A32020SD

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 2 inch bore, 1/4 NPT port, single acting, spring return, double end mount.

Cylinder, 2 in bore, single acting, spring return, double end mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A32010SD	1.0	6.34	1.7	$62.00
A32020SD	2.0	8.34	2.1	$67.00
A32030SD	3.0	9.59	2.6	$71.00

Specifications	
304 SS cylinder body	3.1 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 310.0 lb.	Spring force = 15 lb. relaxed, 30 lb. compressed

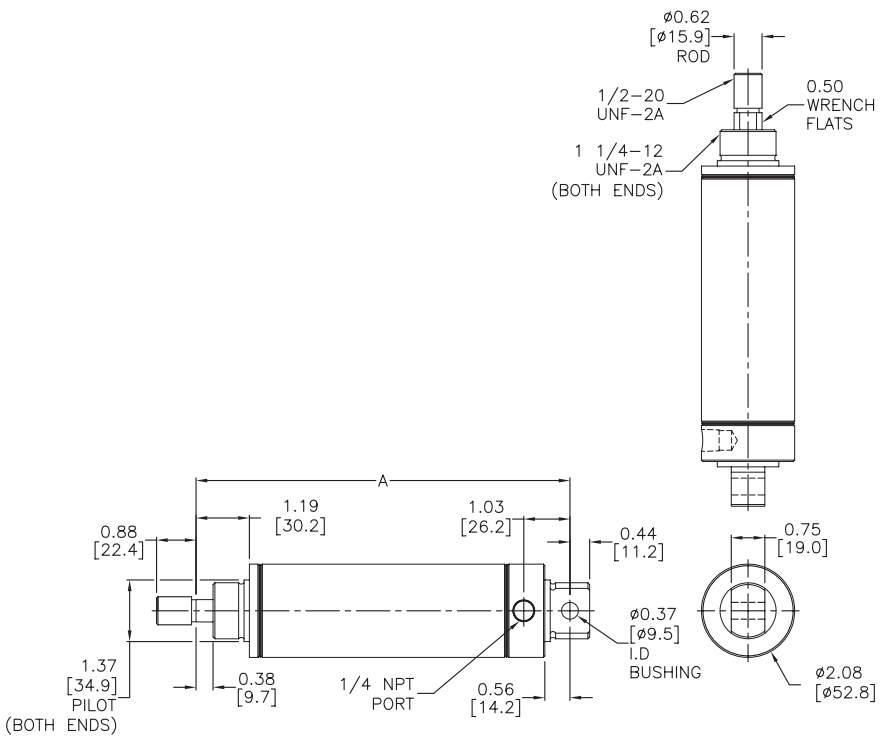
Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-11	AN-114-12
Rear Pivot Mount		APBP-5	–
Double End Mount	Front	AMB-11	AN-114-12
	Rear	AMB-11	AN-114-12

Cylinder rod clevis ARC-12-20

See end of 2" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 2 inch Bore

2 in. Bore, Double-acting, Front Nose Mount



Part no. A32020DN

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 2 inch bore, 1/4 NPT ports, double acting, front nose mount.

Cylinder, 2 in bore, double acting, front nose mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A32010DN	1.0	5.69	1.6	$47.50
A32020DN	2.0	6.69	1.7	$50.00
A32030DN	3.0	7.69	1.9	$53.00
A32040DN	4.0	8.69	2.0	$56.00
A32050DN	5.0	9.69	2.2	$58.00
A32060DN	6.0	10.69	2.3	$60.00

Specifications	
304 SS cylinder body	3.1 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High strength carbon steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 310.0 lb.	Retract force at 100 psi = 279.3 lb.

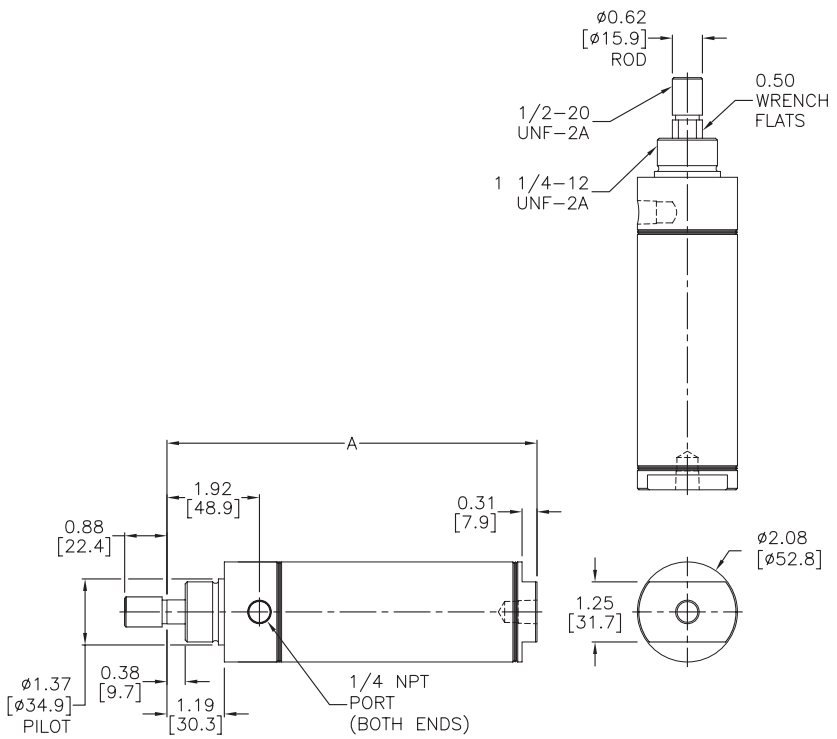
Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-11	AN-114-12
Rear Pivot Mount		–	–
Double End Mount	Front	–	–
	Rear	–	–

Cylinder rod clevis ARC-12-20

See end of 2" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 2 inch Bore

2 in. Bore, Double-acting, Double End Mount



Part no. A32020DD

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 2 inch bore, 1/4 NPT ports, double acting, double end mount.

Cylinder, 2 in bore, double acting, double end mount				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A32010DD	1.0	6.62	1.8	$57.00
A32020DD	2.0	7.62	1.9	$59.00
A32030DD	3.0	8.62	2.1	$62.00
A32040DD	4.0	9.62	2.2	$64.00
A32050DD	5.0	10.62	2.4	$67.00
A32060DD	6.0	11.62	2.5	$69.00
A32070DD	7.0	12.62	2.7	$72.00
A32080DD	8.0	13.62	2.8	$76.00
A32100DD	10.0	15.62	3.1	$80.00
A32120DD	12.0	17.62	3.4	$85.00
A32140DD	14.0	19.62	3.7	$90.00
A32160DD	16.0	21.62	4.0	$96.00
A32180DD	18.0	23.62	4.3	$101.00

Specifications	
304 SS cylinder body	3.1 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 310.0 lb.	Retract force at 100 psi = 279.3 lb.

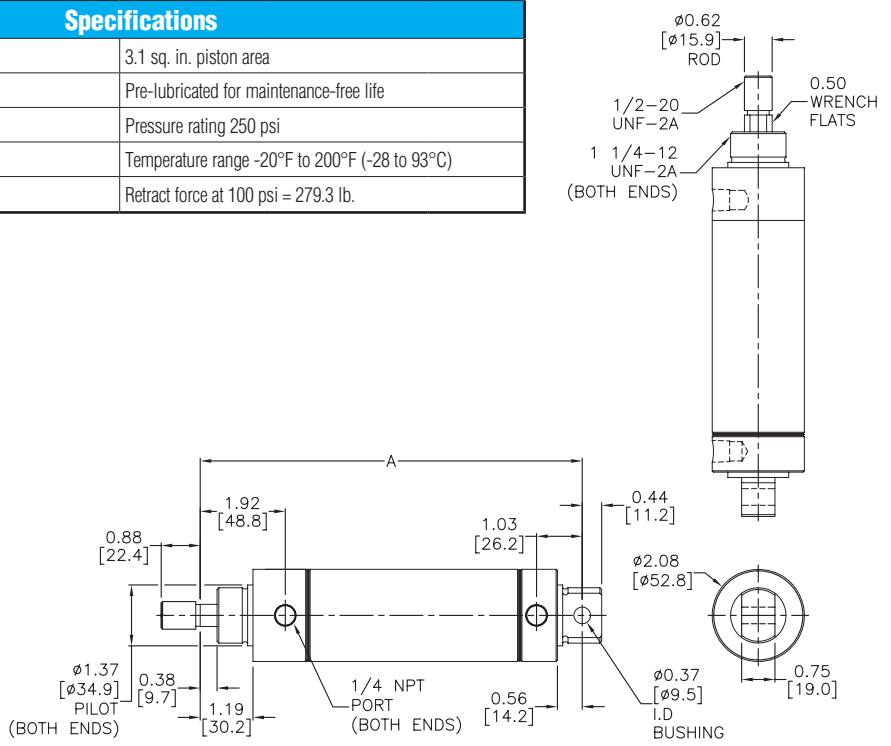
Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-11	AN-114-12
Rear Pivot Mount		APBP-5	–
Double End Mount	Front	AMB-11	AN-114-12
	Rear	AMB-11	AN-114-12

Cylinder rod clevis ARC-12-20

See end of 2" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders 2 inch Bore

2 in. Bore, Double-acting, Double End Mount, Magnetic Piston



Part no. A32020DD-M

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 2 inch bore, 1/4 NPT ports, double acting, double end mount, magnetic piston.

Cylinder, 2 in bore, double acting, double end mount, magnetic piston				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lbs)***	***Price***
A32010DD-M	1.0	6.62	1.8	$71.00
A32020DD-M	2.0	7.62	1.9	$74.00
A32030DD-M	3.0	8.62	2.1	$77.00
A32040DD-M	4.0	9.62	2.2	$79.00
A32050DD-M	5.0	10.62	2.4	$82.00
A32060DD-M	6.0	11.62	2.5	$84.00
A32070DD-M	7.0	12.62	2.7	$86.00
A32080DD-M	8.0	13.62	2.8	$89.00
A32100DD-M	10.0	15.62	3.1	$95.00
A32120DD-M	12.0	17.62	3.4	$95.00
A32140DD-M	14.0	19.62	3.7	$105.00
A32160DD-M	16.0	21.62	4.0	$110.00
A32180DD-M	18.0	23.62	4.3	$116.00

Specifications	
304 SS cylinder body	3.10 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 310 lb.	Retract force at 100 psi = 279.3 lb.

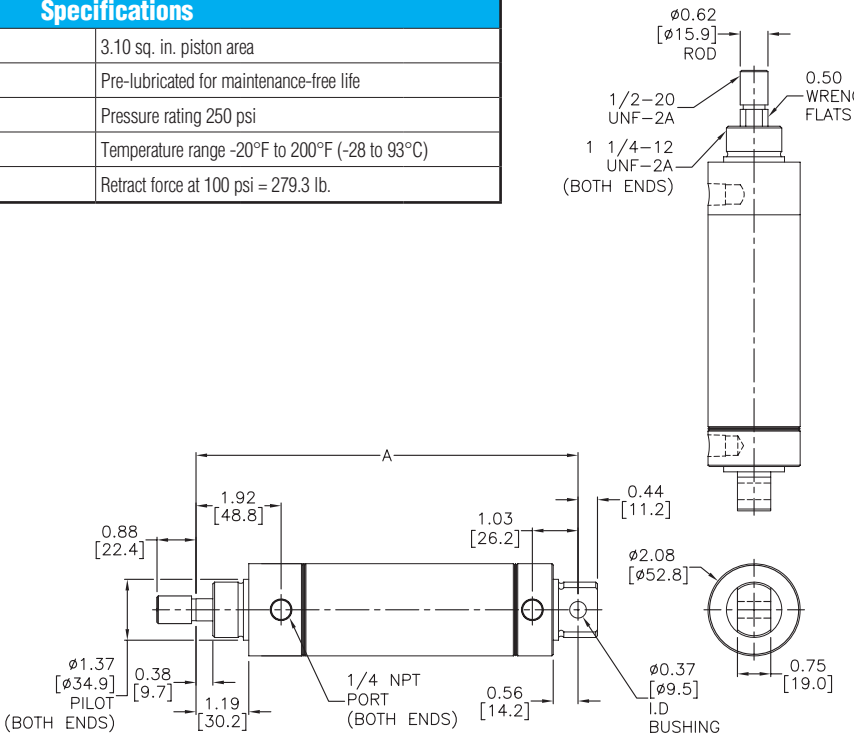
Mount Style		***Bracket***	***Nut***
Front Nose Mount		AMB-11	AN-114-12
Rear Pivot Mount		APBP-5	–
Double End Mount	Front	AMB-11	AN-114-12
	Rear	AMB-11	AN-114-12

Cylinder rod clevis ARC-12-20

See end of 2" bore section for Accessories

Dimensions

inches [mm]



A-Series Pneumatic Cylinders
2 inch Bore Accessories

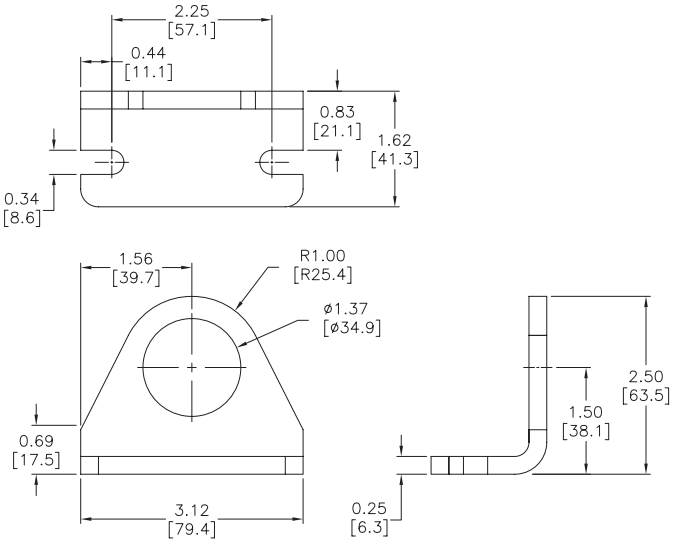
A-Series Pneumatic Cylinder 2 inch Bore Accessories				
Part Number	***Description***	***Pcs/Pkg***	***Wt (lb)***	***Price***
AMB-11	Cylinder mounting bracket used to mount 2 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.5	$10.00
APBP-5	Cylinder pivot mounting bracket with pivot pin used to mount 2 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.4	$11.50
ARC-12-20	Cylinder rod clevis and hex nut, 1/2-20 thread, for use with 2 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.2	$5.25
AN-114-12	Cylinder mounting nut with 1-1/14-12 UNF-2B threads used to mount 2 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.3	$4.25

Dimensions

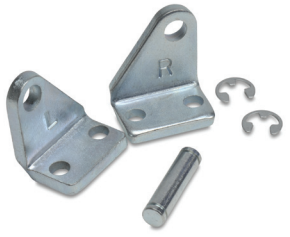
inches [mm]

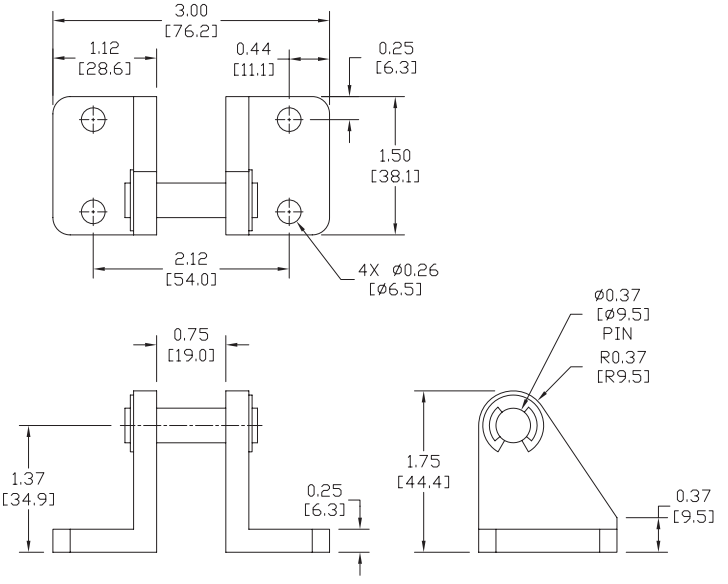
AMB-11





APBP-5





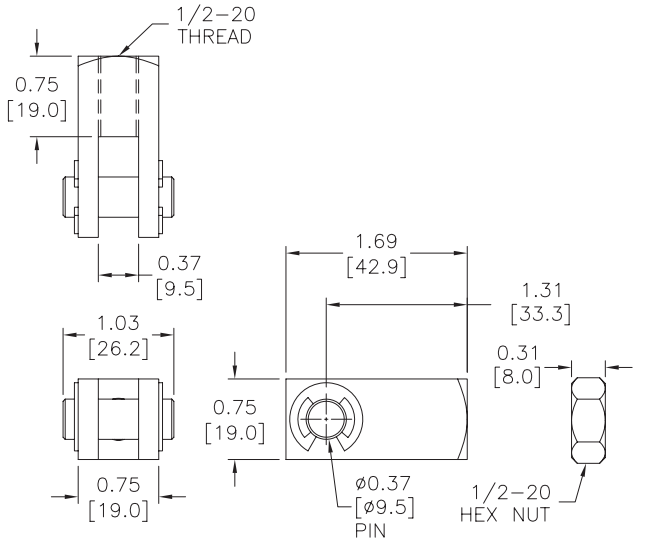
A-Series Pneumatic Cylinders
2 inch Bore Accessories

Dimensions

inches [mm]

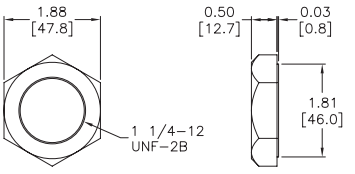
ARC-12-20





AN-114-12





Pneumatic Cylinders - F-Series All Stainless Steel

Nitra F-Series Pneumatic Stainless Steel Round Body Air Cylinders

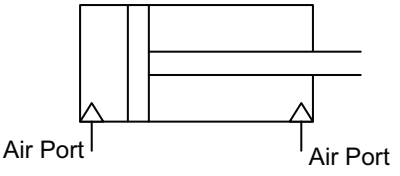
The NITRA Pneumatics F-Series non-repairable stainless steel round body cylinders includes bore sizes from 3/4" to 2" and stroke lengths from 1/2" to 18" to meet a broad range of applications. These high quality cylinders are constructed with stainless steel bodies and end caps with full flow ports. To minimize friction the inside of the cylinder body is polished to a mirror finish and all cylinders are factory lubricated for optimum performance and long, reliable life. The aluminum piston is securely threaded and sealed to a piston rod that is ground and roller burnished 300 series stainless steel with roll-formed threads for exceptional strength. Low friction wear compensating Buna N U-cup rod and piston seals, PTFE rod guide bushing and slotted end caps all combine for smooth breakaway, even at low pressures.

Features

- Interchangeable with other common brands of round body cylinders
- Available bore sizes: 3/4", 1-1/16", 1-1/2", 2"
- Excellent selection of stroke lengths
- Double-acting models
- Nose, rear pivot and double-end mounting options
- Type 300 series stainless steel body, end caps, and rod
- Factory lubricated for long, maintenance-free operation
- 250 psi operating pressure
- Models available with magnetic piston for position indication
- All models are typically available for same-day shipment
- Made in North America
- 2-year warranty

Operation

Double-acting cylinders have two compressed air ports. One of the ports will extend the rod in the "push" direction and the other port will retract the rod in the "pull" directon.



Double-Acting Cylinder
(Force in Push and Pull Direction)

Mounting Options



Nose mount uses one FMB bracket and one FN nut.



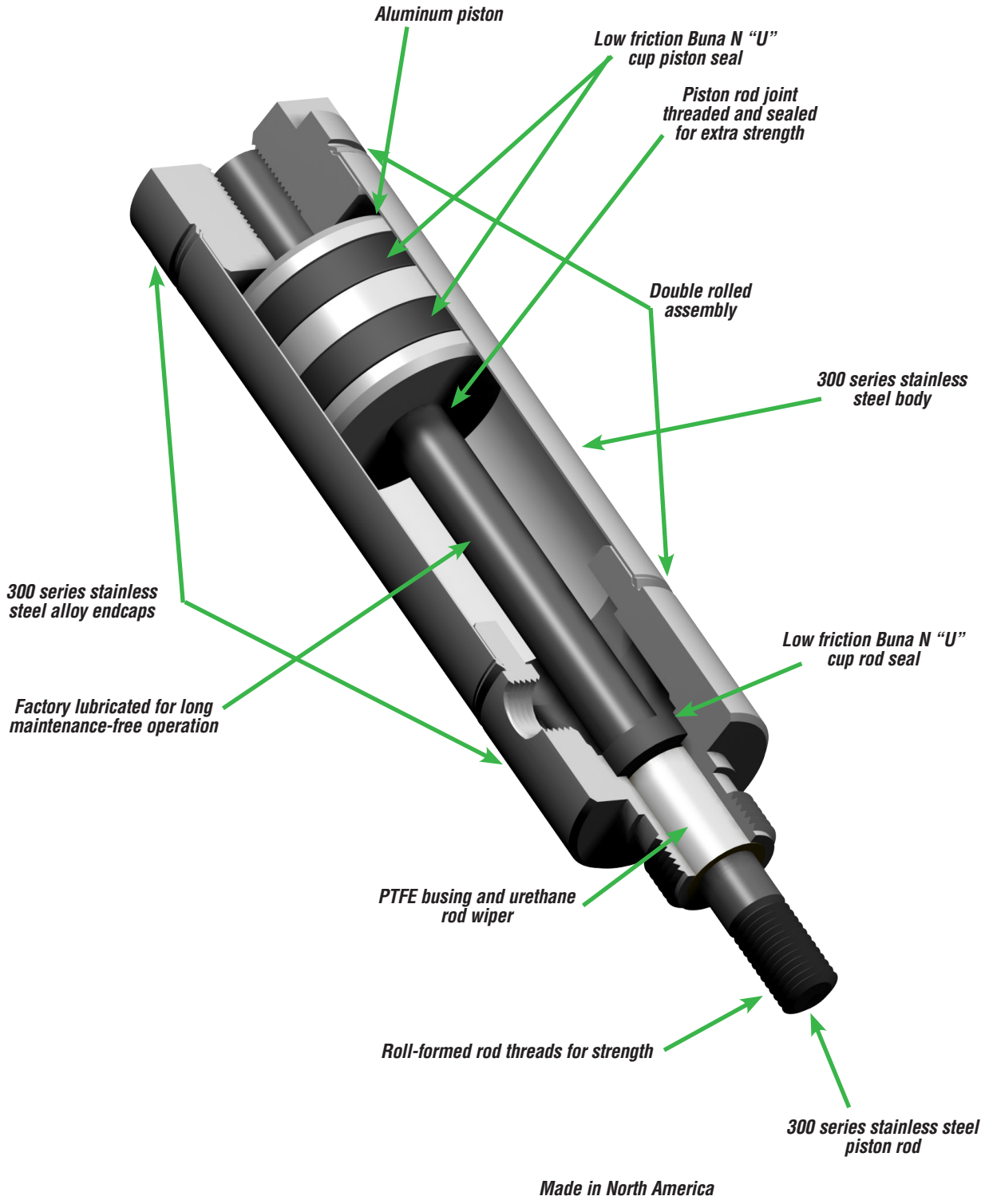
Rear Pivot mount uses one FPBP bracket.



Double end mount uses two FMB brackets and two FN nuts.

Pneumatic Cylinders - F-Series All Stainless Steel

Cylinder Features



F-Series All Stainless Steel Pneumatic Cylinders - 3/4 inch Bore

3/4 in. Bore, Double-acting, Front Nose Mount



Part no. F12030DN

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 3/4 inch bore, 1/8 inch female NPT ports, double acting, front nose mount.

All Stainless Steel Cylinder 3/4 in. bore, double acting, front nose mount				
Part Number	***Stroke Length (in.)***	***"A" (in.)***	***Weight (lbs)***	***Price***
F12005DN	0.5	3.47	0.3	$69.00
F12010DN	1.0	3.97	0.3	$70.00
F12015DN	1.5	4.47	0.5	$71.00
F12020DN	2.0	4.97	0.5	$71.00
F12030DN	3.0	5.97	0.5	$73.00
F12040DN	4.0	6.97	0.5	$75.00
F12050DN	5.0	7.97	0.6	$76.00
F12060DN	6.0	8.97	0.6	$77.00
F12080DN	8.0	10.97	0.8	$80.00
F12100DN	10.0	12.97	0.8	$83.00
F12120DN	12.0	14.97	0.9	$86.00

Specifications	
300 series stainless steel cylinder body	0.40 sq. in. piston area
300 series stainless steel end caps	Pre-lubricated for maintenance-free life
300 series stainless steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 40.0 lb.	Retract force at 100 psi = 35.1 lb.

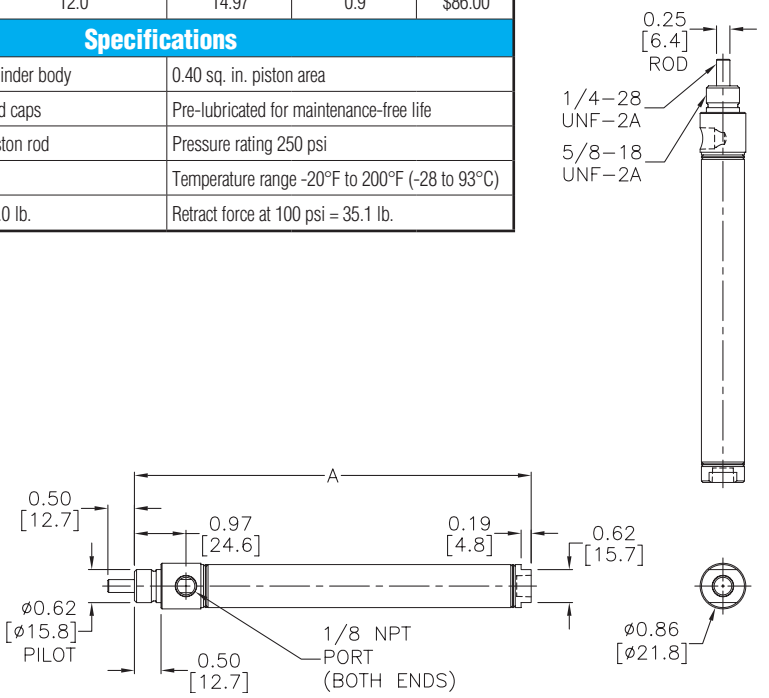
Mount Style		***Bracket***	***Nut***
Front Nose Mount		FMB-6	FN-58-18
Rear Pivot Mount		–	–
Double End Mount	Front	–	–
	Rear	–	–

Cylinder rod clevis FRC-14-28

See end of F-series section for Accessories

Dimensions

inches [mm]



F-Series All Stainless Steel Pneumatic Cylinders - 3/4 inch Bore

3/4 in. Bore, Double-acting, Double End Mount



Part no. F12030DD

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 3/4 inch bore, 1/8 inch female NPT ports, double acting, double end mount.

All Stainless Steel Cylinder 3/4 in. bore, double acting, double end mount				
Part Number	***Stroke Length (in.)***	***"A" (in.)***	***Weight (lbs)***	***Price***
F12005DD	0.5	4.25	0.3	$74.00
F12010DD	1.0	4.75	0.3	$81.50
F12020DD	2.0	5.75	0.5	$87.00
F12030DD	3.0	6.75	0.5	$88.00
F12040DD	4.0	7.75	0.5	$90.00
F12050DD	5.0	8.75	0.6	$91.00
F12060DD	6.0	9.75	0.6	$93.00
F12080DD	8.0	11.75	0.8	$96.00
F12100DD	10.0	13.75	0.8	$99.00
F12120DD	12.0	15.75	0.9	$102.00

Specifications	
300 series stainless steel cylinder body	0.40 sq. in. piston area
300 series stainless steel end caps	Pre-lubricated for maintenance-free life
300 series stainless steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 40.0 lb.	Retract force at 100 psi = 35.1 lb.

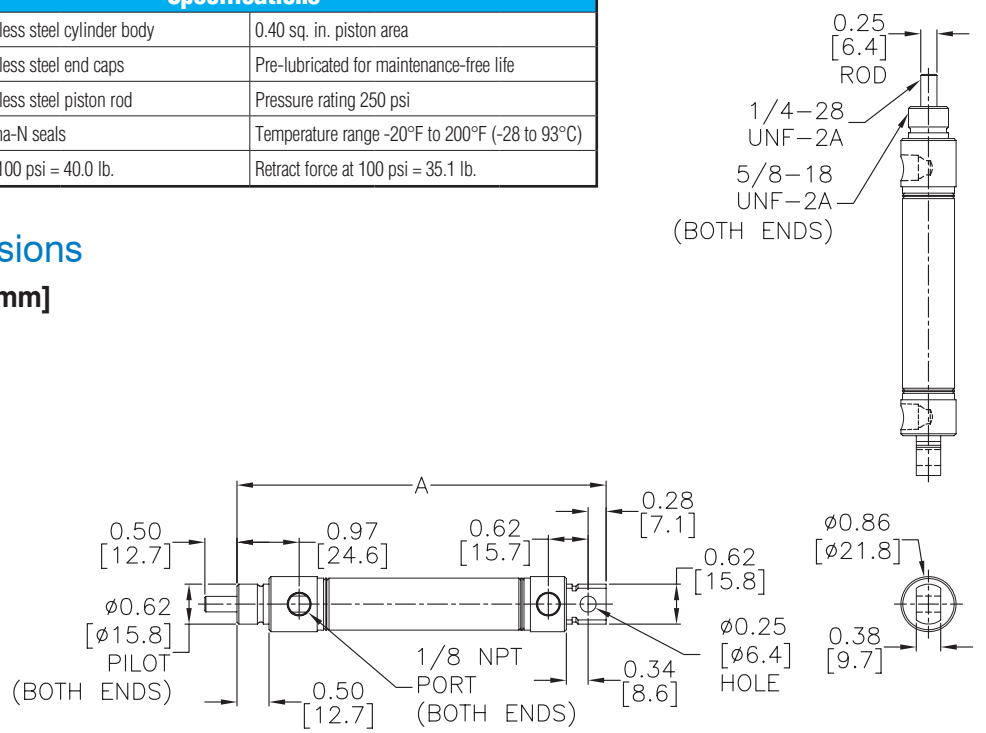
Mount Style		***Bracket***	***Nut***
Front Nose Mount		FMB-6	FN-58-18
Rear Pivot Mount		FPBP-2	–
Double End Mount	Front	FMB-6	FN-58-18
	Rear	FMB-6	FN-58-18

Cylinder rod clevis FRC-14-28

See end of F-series section for Accessories

Dimensions

inches [mm]



F-Series All Stainless Steel Pneumatic Cylinders - 3/4 inch Bore

3/4 in. Bore, Double-acting, Double End Mount, Magnetic Piston



Part no. F12030DD-M

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 3/4 inch bore, 1/8 inch female NPT ports, double acting, double end mount, magnetic piston.

All Stainless Steel Cylinder 3/4 in. bore, double acting, double end mount, magnetic piston				
Part Number	***Stroke Length (in.)***	***"A" (in.)***	***Weight (lbs)***	***Price***
F12010DD-M	1.0	4.75	0.3	$93.00
F12020DD-M	2.0	5.75	0.5	$95.00
F12030DD-M	3.0	6.75	0.5	$97.00
F12040DD-M	4.0	7.75	0.5	$98.00
F12050DD-M	5.0	8.75	0.6	$99.00
F12060DD-M	6.0	9.75	0.6	$101.00
F12080DD-M	8.0	11.75	0.8	$104.00
F12100DD-M	10.0	13.75	0.8	$107.00
F12120DD-M	12.0	15.75	0.9	$104.50

Specifications	
300 series stainless steel cylinder body	0.40 sq. in. piston area
300 series stainless steel end caps	Pre-lubricated for maintenance-free life
300 series stainless steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 185°F (-28 to 85°C)
Extend force at 100 psi = 40.0 lb.	Retract force at 100 psi = 35.1 lb.

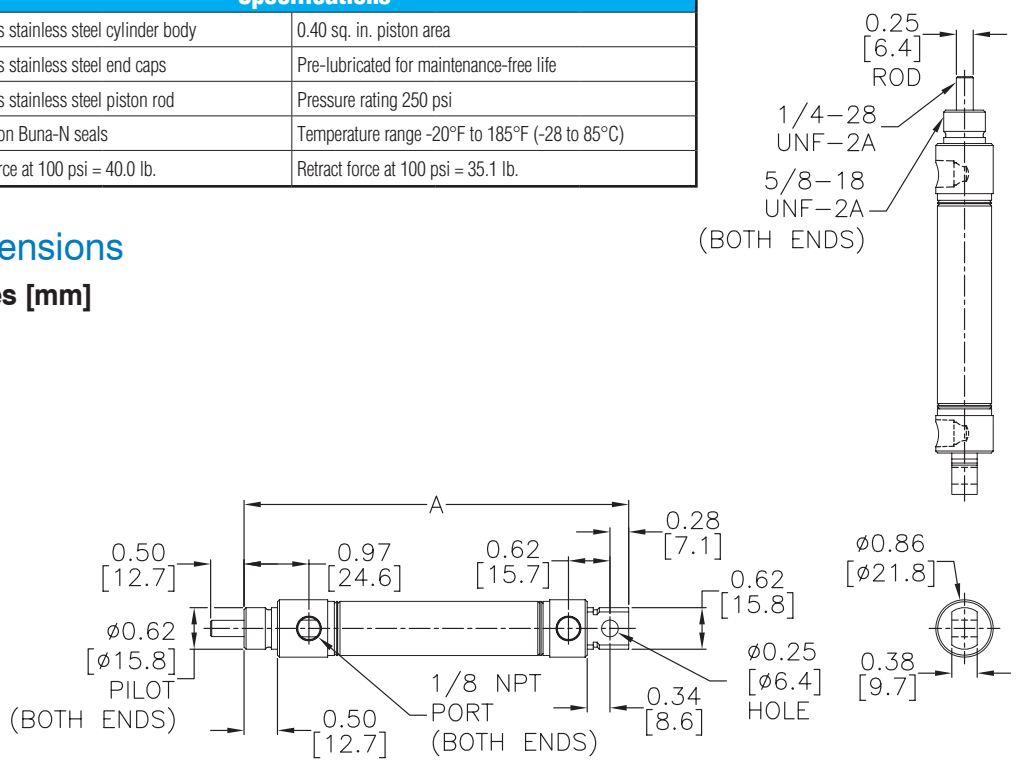
Mount Style		***Bracket***	***Nut***
Front Nose Mount		FMB-6	FN-58-18
Rear Pivot Mount		FPBP-2	–
Double End Mount	Front	FMB-6	FN-58-18
	Rear	FMB-6	FN-58-18

Cylinder rod clevis FRC-14-28

See end of F-series section for Accessories

Dimensions

inches [mm]



F-Series All Stainless Steel Pneumatic Cylinders - 1-1/16 inch Bore

1-1/16 in. Bore, Double-acting, Front Nose Mount



Part no. F17030DN

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/16 inch bore, 1/8 inch female NPT ports, double acting, front nose mount.

All Stainless Steel Cylinder 1-1/16 in. bore, double acting, front nose mount				
Part Number	***Stroke Length (in.)***	***"A" (in.)***	***Weight (lbs)***	***Price***
F17005DN	0.5	3.75	0.6	$75.00
F17010DN	1.0	4.25	0.6	$76.00
F17020DN	2.0	5.25	0.6	$77.00
F17030DN	3.0	6.25	0.8	$79.00
F17040DN	4.0	7.25	0.8	$80.00
F17050DN	5.0	8.25	0.9	$81.00
F17060DN	6.0	9.25	0.9	$83.00
F17080DN	8.0	11.25	1.1	$86.00
F17100DN	10.0	13.25	1.2	$89.00
F17120DN	12.0	15.25	1.4	$92.00

Specifications	
300 series stainless steel cylinder body	0.90 sq. in. piston area
300 series stainless steel end caps	Pre-lubricated for maintenance-free life
300 series stainless steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 90.0 lb.	Retract force at 100 psi = 82.3 lb.

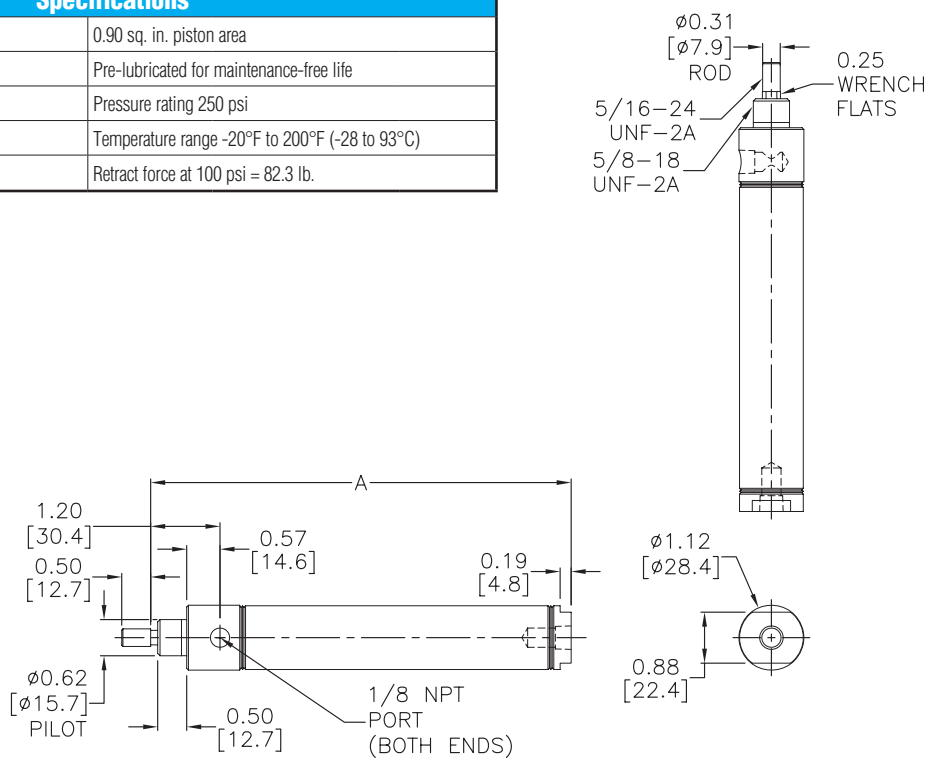
Mount Style		***Bracket***	***Nut***
Front Nose Mount		FMB-6	FN-58-18
Rear Pivot Mount		–	–
Double End Mount	Front	–	–
	Rear	–	–

Cylinder rod clevis FRC-516-24

See end of F-series section for Accessories

Dimensions

inches [mm]



F-Series All Stainless Steel Pneumatic Cylinders - 1-1/16 inch Bore

1-1/16 in. Bore, Double-acting, Double End Mount



Part no. F17030DD

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/16 inch bore, 1/8 inch female NPT ports, double acting, double end mount.

All Stainless Steel Cylinder 1-1/16 in. bore, double acting, double end mount				
Part Number	***Stroke Length (in.)***	***"A" (in.)***	***Weight (lbs)***	***Price***
F17010DD	1.0	4.84	0.6	$91.00
F17020DD	2.0	5.84	0.6	$92.00
F17030DD	3.0	6.84	0.8	$94.00
F17040DD	4.0	7.84	0.8	$96.00
F17050DD	5.0	8.84	0.9	$92.00
F17060DD	6.0	9.84	0.9	$98.00
F17080DD	8.0	11.84	1.1	$101.00
F17100DD	10.0	13.84	1.2	$104.00
F17120DD	12.0	15.84	1.4	$107.00

Specifications	
300 series stainless steel cylinder body	0.90 sq. in. piston area
300 series stainless steel end caps	Pre-lubricated for maintenance-free life
300 series stainless steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 90.0 lb.	Retract force at 100 psi = 82.3 lb.

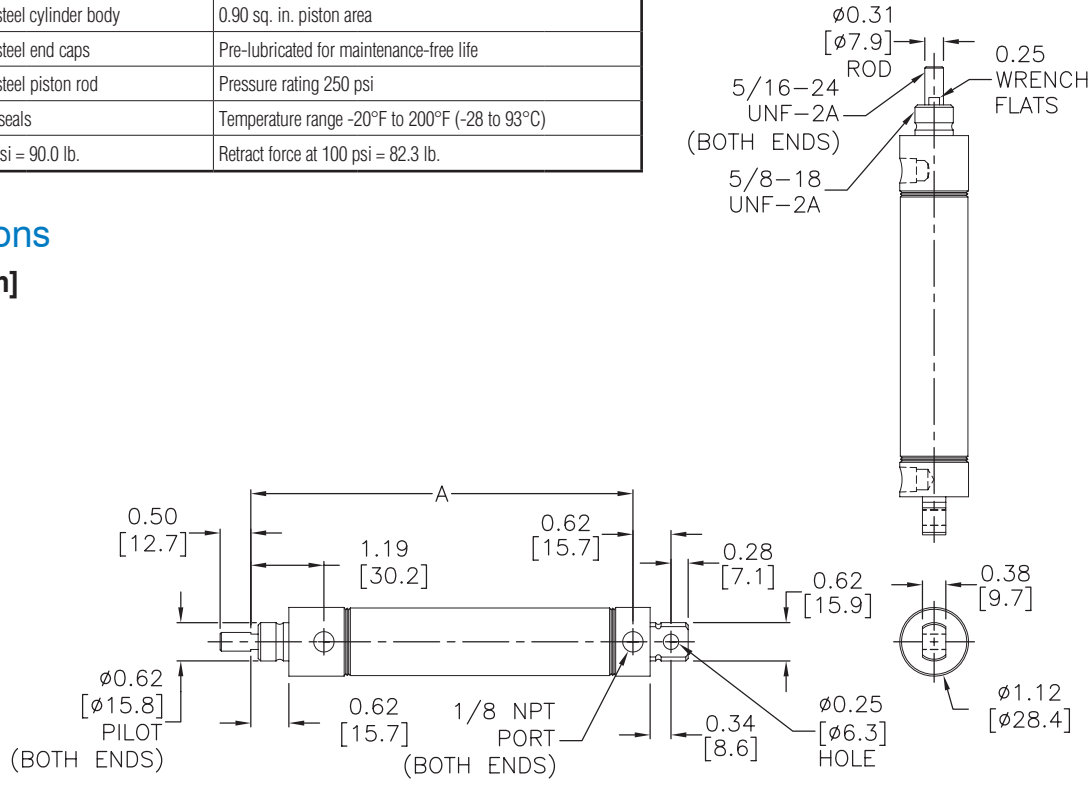
Mount Style		***Bracket***	***Nut***
Front Nose Mount		FMB-6	FN-58-18
Rear Pivot Mount		FPBP-2	–
Double End Mount	Front	FMB-6	FN-58-18
	Rear	FMB-6	FN-58-18

Cylinder rod clevis FRC-516-24

See end of F-series section for Accessories

Dimensions

inches [mm]



F-Series All Stainless Steel Pneumatic Cylinders - 1-1/16 inch Bore

1-1/16 in. Bore, Double-acting, Double End Mount, Magnetic Piston



Part no. F17030DD-M

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/16 inch bore, 1/8 inche female NPT ports, double acting, double end mount, magnetic piston.

All Stainless Steel Cylinder 1-1/16 in. bore, double acting, double end mount, magnetic piston				
Part Number	***Stroke Length (in.)***	***"A" (in.)***	***Weight (lbs)***	***Price***
F17010DD-M	1.0	4.84	0.6	$101.00
F17020DD-M	2.0	5.84	0.6	$102.00
F17030DD-M	3.0	6.84	0.8	$104.00
F17040DD-M	4.0	7.84	0.8	$106.00
F17050DD-M	5.0	8.84	0.9	$107.00
F17060DD-M	6.0	9.84	0.9	$108.00
F17080DD-M	8.0	11.84	1.1	$106.00
F17100DD-M	10.0	13.84	1.2	$114.00
F17120DD-M	12.0	15.84	1.4	$117.00

Specifications	
300 series stainless steel cylinder body	0.90 sq. in. piston area
300 series stainless steel end caps	Pre-lubricated for maintenance-free life
300 series stainless steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 185°F (-28 to 85°C)
Extend force at 100 psi = 90.0 lb.	Retract force at 100 psi = 82.3 lb.

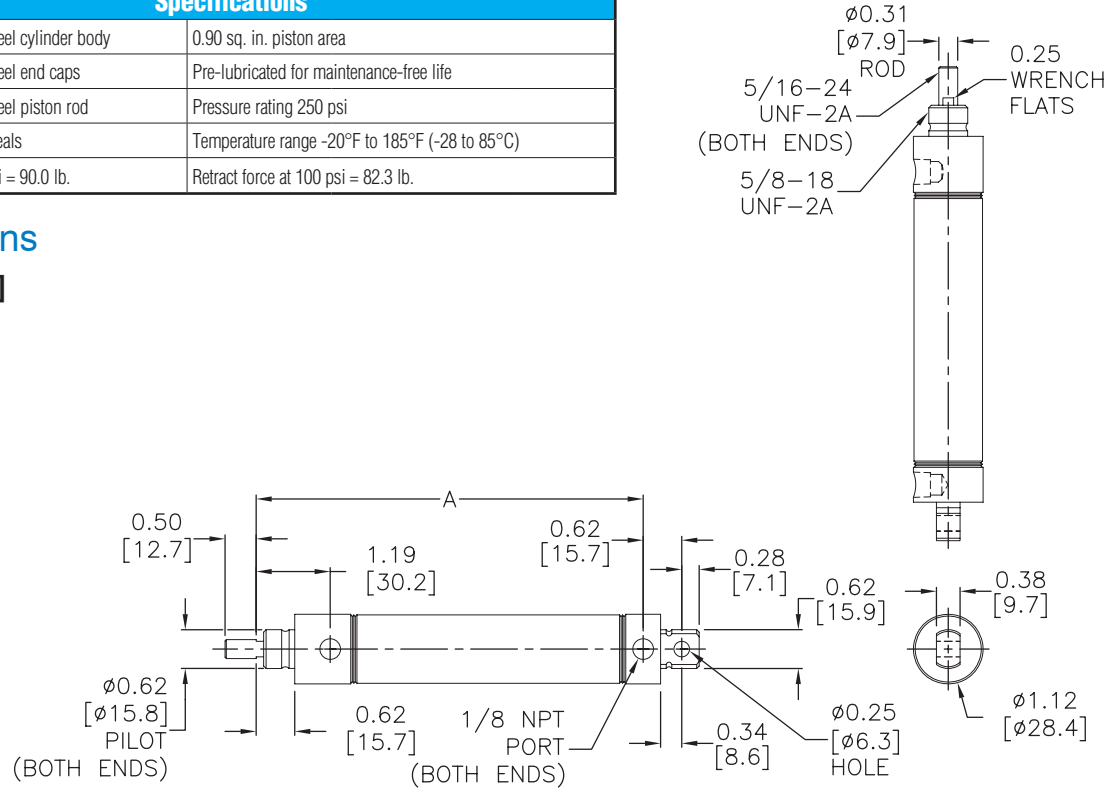
Mount Style		***Bracket***	***Nut***
Front Nose Mount		FMB-6	FN-58-18
Rear Pivot Mount		FPBP-2	–
Double End Mount	Front	FMB-6	FN-58-18
	Rear	FMB-6	FN-58-18

Cylinder rod clevis FRC-516-24

See end of F-series section for Accessories

Dimensions

inches [mm]



F-Series All Stainless Steel Pneumatic Cylinders - 1-1/2 inch Bore

1-1/2 in. Bore, Double-acting, Front Nose Mount



Part no. F24030DN

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/2 inch bore, 1/8 inch female NPT ports, double acting, front nose mount.

All Stainless Steel Cylinder 1-1/2 in. bore, double acting, front nose mount				
Part Number	***Stroke Length (in.)***	***"A" (in.)***	***Weight (lbs)***	***Price***
F24010DN	1.0	4.69	1.2	$84.00
F24015DN	1.5	5.19	1.2	$85.00
F24020DN	2.0	5.69	1.4	$86.00
F24030DN	3.0	6.69	1.4	$89.00
F24040DN	4.0	7.69	1.5	$91.00
F24050DN	5.0	8.69	1.6	$93.00
F24060DN	6.0	9.69	1.8	$42.00
F24080DN	8.0	11.69	2.0	$46.00
F24100DN	10.0	13.69	2.3	$51.00
F24120DN	12.0	15.69	2.5	$109.00

Specifications	
300 series stainless steel cylinder body	1.7 sq. in. piston area
300 series stainless steel end caps	Pre-lubricated for maintenance-free life
300 series stainless steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 170.0 lb.	Retract force at 100 psi = 155.0 lb.

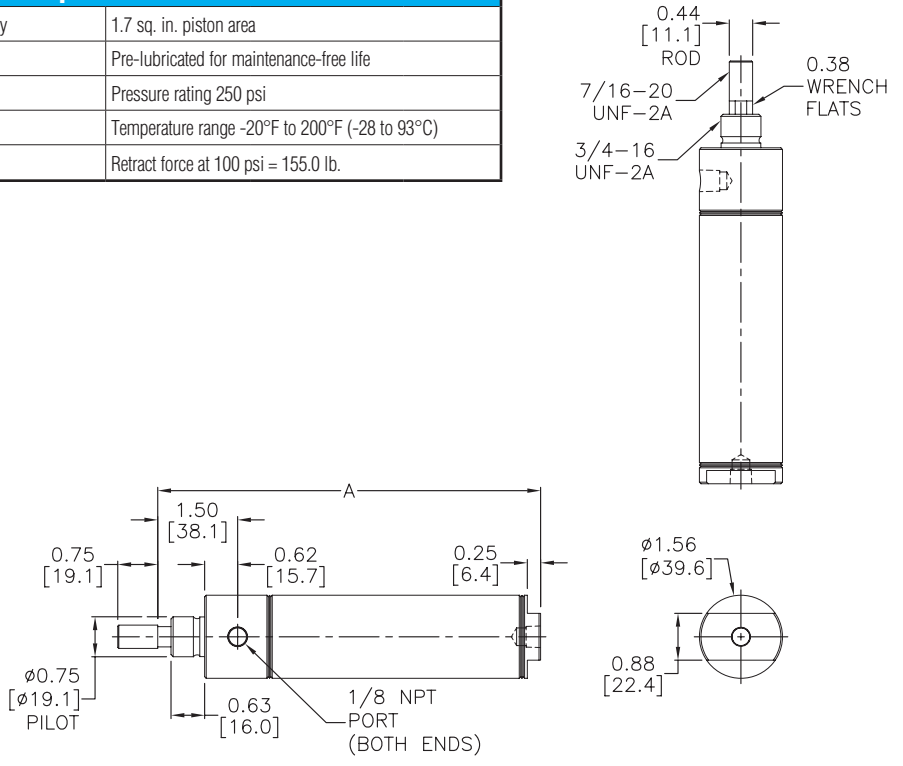
Mount Style		***Bracket***	***Nut***
Front Nose Mount		FMB-7	FN-34-16
Rear Pivot Mount		–	–
Double End Mount	Front	–	–
	Rear	–	–

Cylinder rod clevis FRC-716-20

See end of F-series section for Accessories

Dimensions

inches [mm]



F-Series All Stainless Steel Pneumatic Cylinders - 1-1/2 inch Bore

1-1/2 in. Bore, Double-acting, Double End Mount



Part no. F24030DD

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/2 inch bore, 1/8 inch female NPT ports, double acting, double end mount.

All Stainless Steel Cylinder 1-1/2 in. bore, double acting, double end mount				
Part Number	***Stroke Length (in.)***	***"A" (in.)***	***Weight (lbs)***	***Price***
F24010DD	1.0	5.38	1.2	$97.00
F24020DD	2.0	6.38	1.4	$99.00
F24030DD	3.0	7.38	1.5	$101.00
F24040DD	4.0	8.38	1.7	$103.00
F24050DD	5.0	9.38	1.7	$106.00
F24060DD	6.0	10.38	1.8	$108.00
F24080DD	8.0	12.38	2.1	$107.50
F24100DD	10.0	14.38	2.3	$118.00
F24120DD	12.0	16.38	2.6	$122.00

Specifications	
300 series stainless steel cylinder body	1.7 sq. in. piston area
300 series stainless steel end caps	Pre-lubricated for maintenance-free life
300 series stainless steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 170.0 lb.	Retract force at 100 psi = 155.0 lb.

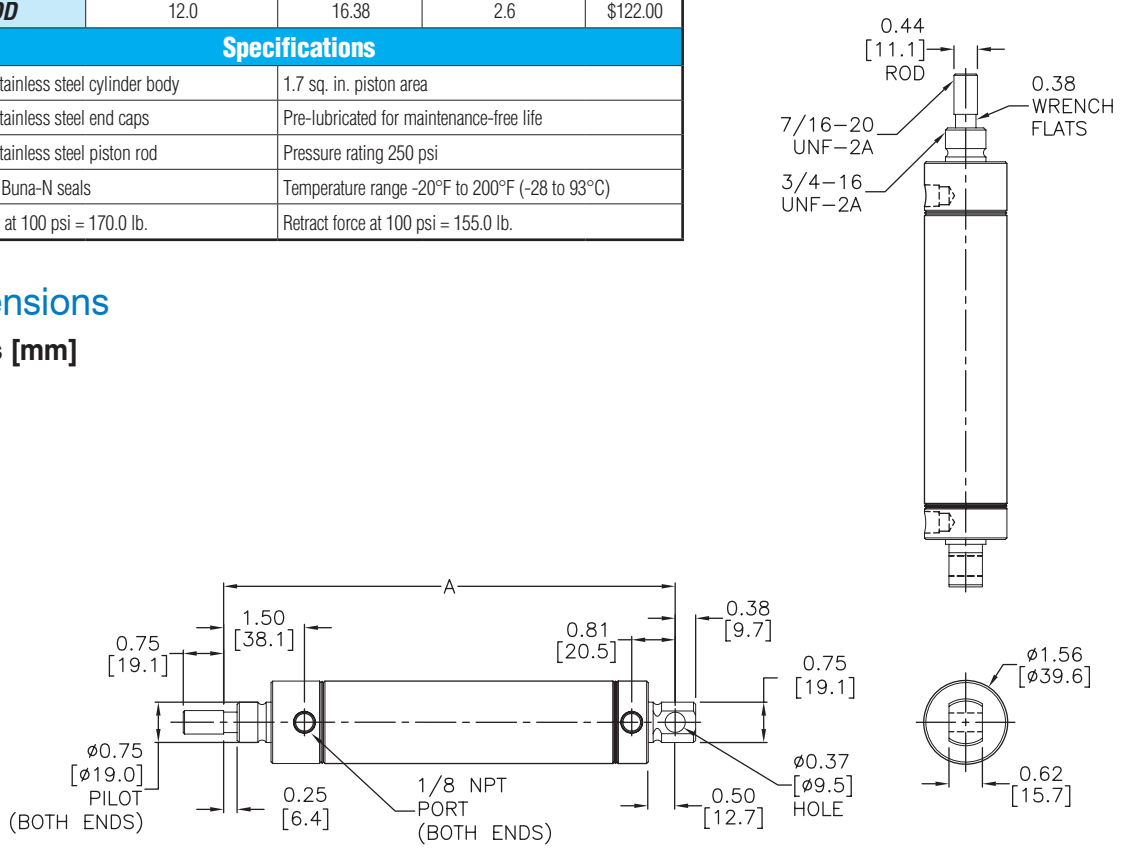
Mount Style		***Bracket***	***Nut***
Front Nose Mount		FMB-7	FN-34-16
Rear Pivot Mount		FPBP-3	–
Double End Mount	Front	FMB-7	FN-34-16
	Rear	FMB-7	FN-34-16

Cylinder rod clevis FRC-716-20

See end of F-series section for Accessories

Dimensions

inches [mm]



F-Series All Stainless Steel Pneumatic Cylinders - 1-1/2 inch Bore

1-1/2 in. Bore, Double-acting, Double End Mount, Magnetic Piston



Part no. F24030DD-M

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/2 inch bore, 1/8 inch female NPT ports, double acting, double end mount, magnetic piston.

All Stainless Steel Cylinder 1-1/2 in. bore, double acting, double end mount, magnetic piston				
Part Number	***Stroke Length (in.)***	***"A" (in.)***	***Weight (lbs)***	***Price***
F24010DD-M	1.0	5.38	1.2	$109.00
F24020DD-M	2.0	6.38	1.4	$111.00
F24030DD-M	3.0	7.38	1.5	$113.00
F24040DD-M	4.0	8.38	1.7	$115.00
F24050DD-M	5.0	9.38	1.7	$118.00
F24060DD-M	6.0	10.38	1.8	$120.00
F24080DD-M	8.0	12.38	2.1	$125.00
F24100DD-M	10.0	14.38	2.3	$130.00
F24120DD-M	12.0	16.38	2.6	$134.00

Specifications	
300 series stainless steel cylinder body	1.7 sq. in. piston area
300 series stainless steel end caps	Pre-lubricated for maintenance-free life
300 series stainless steelpiston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 185°F (-28 to 85°C)
Extend force at 100 psi = 170.0 lb.	Retract force at 100 psi = 155.0 lb.

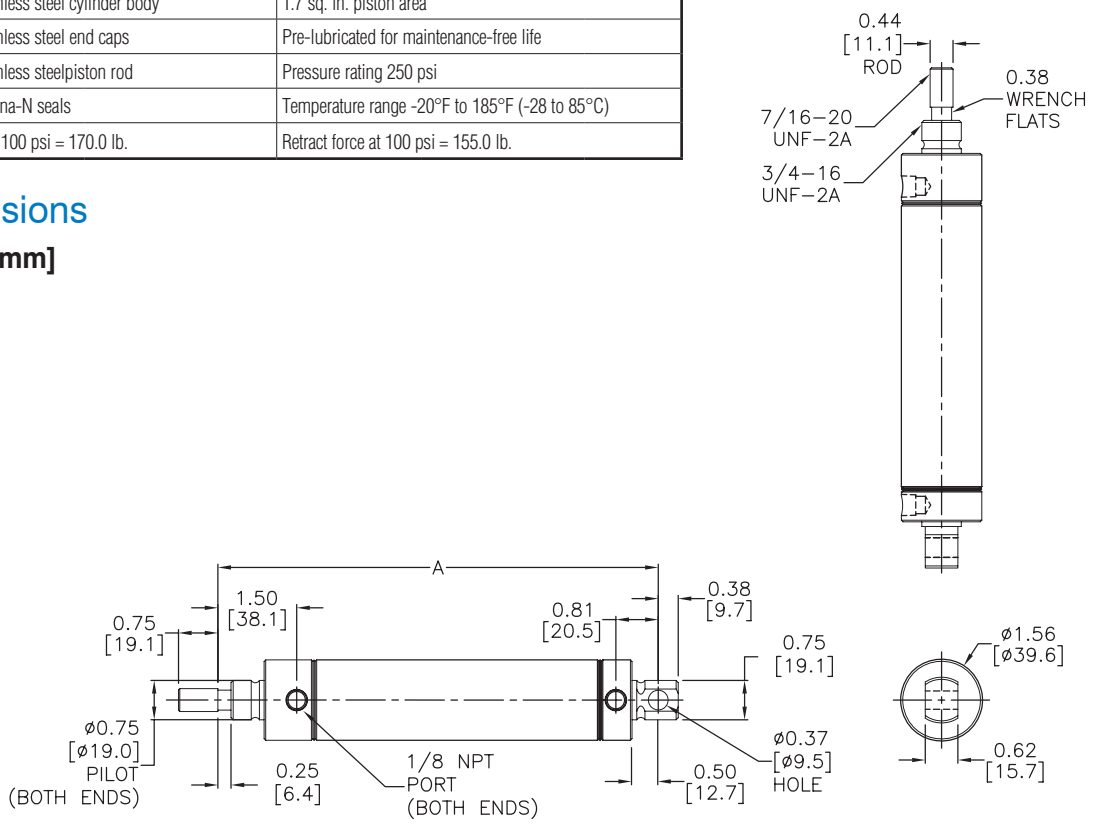
Mount Style		***Bracket***	***Nut***
Front Nose Mount		FMB-7	FN-34-16
Rear Pivot Mount		FPBP-3	–
Double End Mount	Front	FMB-7	FN-34-16
	Rear	FMB-7	FN-34-16

Cylinder rod clevis FRC-716-20

See end of F-series section for Accessories

Dimensions

inches [mm]



F-Series All Stainless Steel Pneumatic Cylinders - 2 inch Bore

2 in. Bore, Double-acting, Front Nose Mount



Part no. F32030DN

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 2 inch bore, 1/4 inch female NPT ports, double acting, front nose mount.

All Stainless Steel Cylinder 2 in. bore, double acting, front nose mount				
Part Number	***Stroke Length (in.)***	***"A" (in.)***	***Weight (lbs)***	***Price***
F32010DN	1.0	5.69	2.4	$91.00
F32020DN	2.0	6.69	2.6	$93.00
F32030DN	3.0	7.69	2.9	$96.00
F32040DN	4.0	8.69	3.0	$99.00
F32050DN	5.0	9.69	3.3	$101.00
F32060DN	6.0	10.69	3.5	$104.00

Specifications	
300 series stainless steel cylinder body	3.1 sq. in. piston area
300 series stainless steel end caps	Pre-lubricated for maintenance-free life
300 series stainless steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 310.0 lb.	Retract force at 100 psi = 279.3 lb.

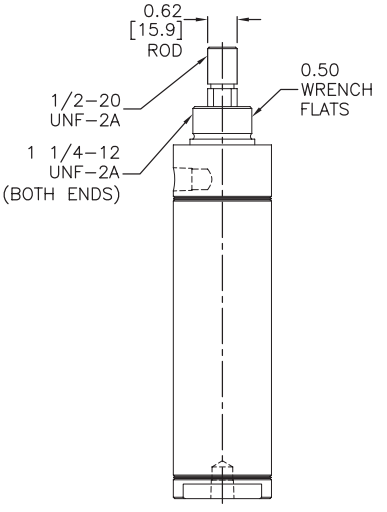
Mount Style		***Bracket***	***Nut***
Front Nose Mount		FMB-11	FN-114-12
Rear Pivot Mount		–	–
Double End Mount	Front	–	–
	Rear	–	–

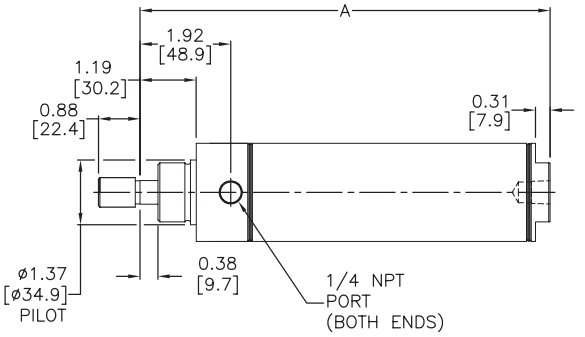
Cylinder rod clevis FRC-12-20

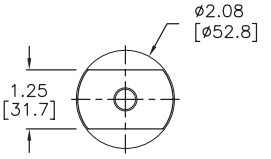
See end of F-series section for Accessories

Dimensions

inches [mm]







F-Series All Stainless Steel Pneumatic Cylinders - 2 inch Bore

2 in. Bore, Double-acting, Double End Mount



Part no. F32030DD

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 2 inch bore, 1/4 inch female NPT ports, double acting, double end mount.

All Stainless Steel Cylinder 2 in. bore, double acting, double end mount				
Part Number	**Stroke Length (in.)**	**"A" (in.)**	**Weight (lbs)**	**Price**
F32010DD	1.0	6.62	2.7	$104.00
F32020DD	2.0	7.62	2.8	$107.00
F32030DD	3.0	8.62	3.2	$109.00
F32040DD	4.0	9.62	3.3	$106.50
F32050DD	5.0	10.62	3.6	$114.00
F32060DD	6.0	11.62	3.8	$118.00
F32080DD	8.0	13.62	4.2	$122.00
F32100DD	10.0	15.62	4.6	$128.00
F32120DD	12.0	17.62	5.1	$133.00
F32140DD	14.0	19.62	5.6	$131.50
F32160DD	16.0	21.62	6.0	$143.00
F32180DD	18.0	23.62	6.5	$149.00

Specifications	
300 series stainless steel cylinder body	3.1 sq. in. piston area
300 series stainless steel end caps	Pre-lubricated for maintenance-free life
300 series stainless steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 310.0 lb.	Retract force at 100 psi = 279.3 lb.

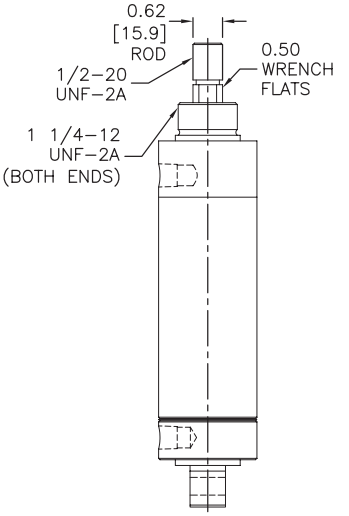
Mount Style		Bracket	Nut
Front Nose Mount		FMB-11	FN-114-12
Rear Pivot Mount		FPBP-4	–
Double End Mount	Front	FMB-11	FN-114-12
	Rear	FMB-11	FN-114-12

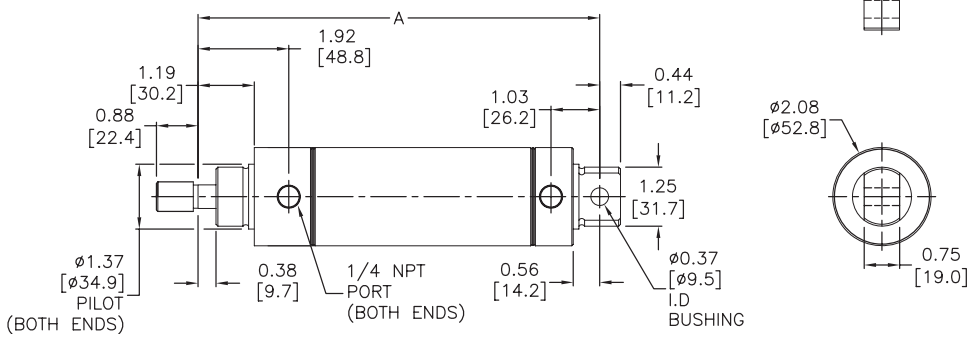
Cylinder rod clevis FRC-12-20

See end of F-series section for Accessories

Dimensions

inches [mm]





F-Series All Stainless Steel Pneumatic Cylinders - 2 inch Bore

2 in. Bore, Double-acting, Double End Mount, Magnetic Piston



Part no. F32030DD-M

NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 2 inch bore, 1/4 inch female NPT ports, double acting, double end mount, magnetic piston.

All Stainless Steel Cylinder 2 in. bore, double acting, double end mount, magnetic piston				
Part Number	**Stroke Length (in.)**	**"A" (in.)**	**Weight (lbs)**	**Price**
F32010DD-M	1.0	6.62	2.7	$118.00
F32020DD-M	2.0	7.62	2.8	$121.00
F32030DD-M	3.0	8.62	3.2	$117.50
F32040DD-M	4.0	9.62	3.3	$126.00
F32050DD-M	5.0	10.62	3.6	$129.00
F32060DD-M	6.0	11.62	3.8	$131.00
F32080DD-M	8.0	13.62	4.2	$137.00
F32100DD-M	10.0	15.62	4.6	$142.00
F32120DD-M	12.0	17.62	5.0	$147.00
F32140DD-M	14.0	19.62	5.6	$152.00
F32160DD-M	16.0	21.62	6.0	$158.00
F32180DD-M	18.0	23.62	6.5	$155.00

Specifications	
300 series stainless steel cylinder body	3.10 sq. in. piston area
300 series stainless steel end caps	Pre-lubricated for maintenance-free life
300 series stainless steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 185°F (-28 to 85°C)
Extend force at 100 psi = 310 lb.	Retract force at 100 psi = 279.3 lb.

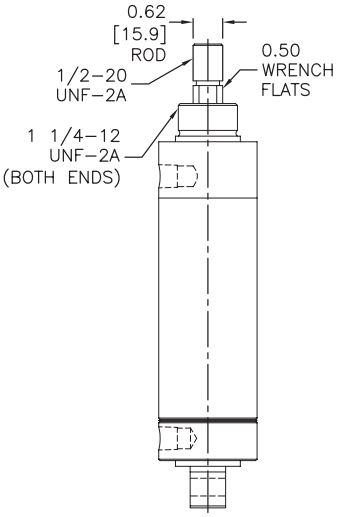
Mount Style		Bracket	Nut
Front Nose Mount		FMB-11	FN-114-12
Rear Pivot Mount		FPBP-4	–
Double End Mount	Front	FMB-11	FN-114-12
	Rear	FMB-11	FN-114-12

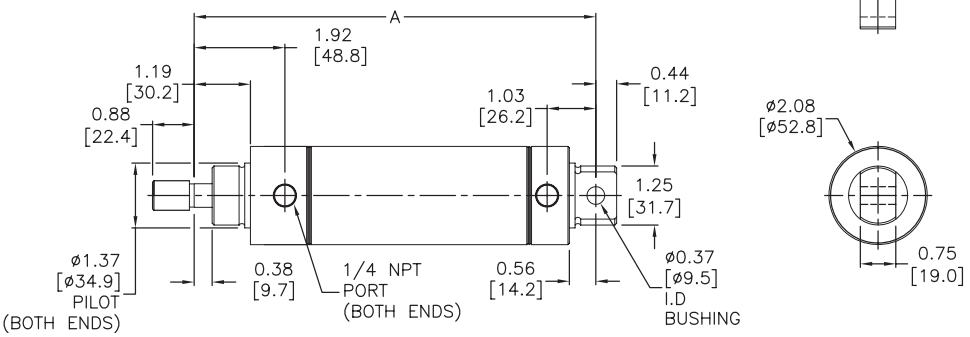
Cylinder rod clevis FRC-12-20

See end of F-series section for Accessories

Dimensions

inches [mm]





F-Series All Stainless Steel Pneumatic Cylinder Accessories

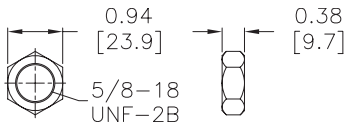
F-Series All Stainless Steel Pneumatic Cylinder Accessories				
Part Number	**Description**	**Pcs/Pkg**	**Wt (lb)**	**Price**
FN-58-18	Cylinder mounting nut with 5/8-18 UNF-2B threads, stainless steel, used to mount 3/4 and 1-1/16 inch bore NITRA F-series round body air cylinders	1	0.1	$2.25
FN-34-16	Cylinder mounting nut with 3/4-16 UNF-2B threads, stainless steel, used to mount 1-1/2 inch bore NITRA F-series round body air cylinders	1	0.1	$3.00
FN-114-12	Cylinder mounting nut with 1-1/4-12 UNF-2B threads, stainless steel, used to mount 2 inch bore NITRA F-series round body air cylinders	1	0.3	$6.75
FMB-6	Cylinder mounting bracket, stainless steel, used to mount 3/4 and 1-1/16 inch bore NITRA F-series round body air cylinders	1	0.1	$6.25
FMB-7	Cylinder mounting bracket, stainless steel, used to mount 1-1/2 inch bore NITRA F-series round body air cylinders	1	0.2	$19.50
FMB-11	Cylinder mounting bracket, stainless steel, used to mount 2 inch bore NITRA F-series round body air cylinders	1	0.5	$27.50
FPBP-2	Cylinder pivot mounting bracket with pivot pin, stainless steel, used to mount 3/4 and 1-1/16 inch bore NITRA F-series round body air cylinders	1	0.1	$17.50
FPBP-3	Cylinder pivot mounting bracket with pivot pin, stainless steel, used to mount 1-1/2 inch bore NITRA F-series round body air cylinders	1	0.2	$21.50
FPBP-4	Cylinder pivot mounting bracket with pivot pin, stainless steel, used to mount 2 inch bore NITRA F-series round body air cylinders	1	0.3	$26.50
FRC-14-28	Cylinder rod clevis and hex nut, stainless steel, 1/4-28 thread, for use with 3/4 inch bore NITRA F-series round body air cylinders	1	0.1	$22.00
FRC-516-24	Cylinder rod clevis and hex nut, stainless steel, 5/16-24 thread, for use with 1-1/16 inch bore NITRA F-series round body air cylinders	1	0.1	$25.00
FRC-716-20	Cylinder rod clevis and hex nut, stainless steel, 7/16-20 thread, for use with 1-1/2 inch bore NITRA F-series round body air cylinders	1	0.2	$31.00
FRC-12-20	Cylinder rod clevis and hex nut, stainless steel, 1/2-20 thread, for use with 2 inch bore NITRA F-series round body air cylinders	1	0.2	$36.50

Dimensions

inches [mm]

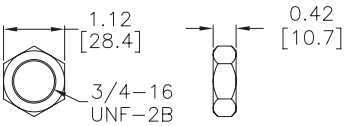
FN-58-18





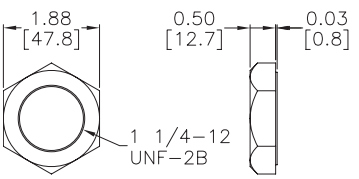
FN-34-16





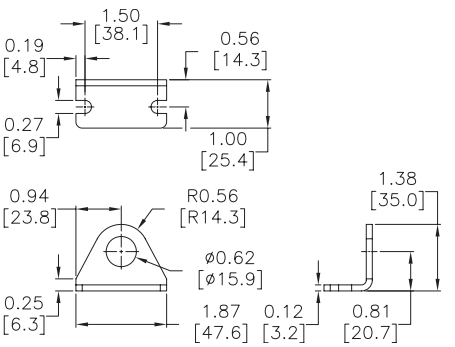
FN-114-12





FMB-6





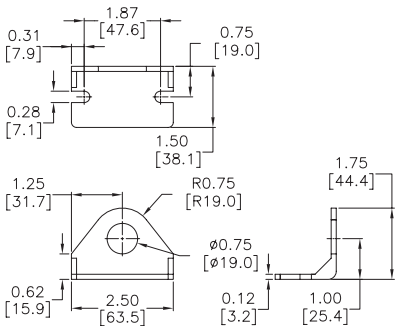
F-Series All Stainless Steel Pneumatic Cylinder Accessories

Dimensions

inches [mm]

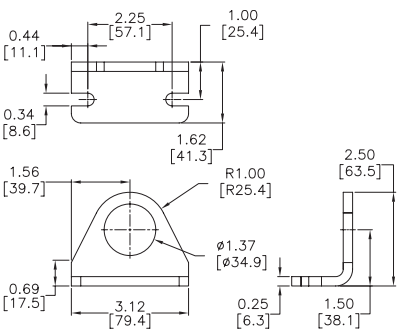
FMB-7





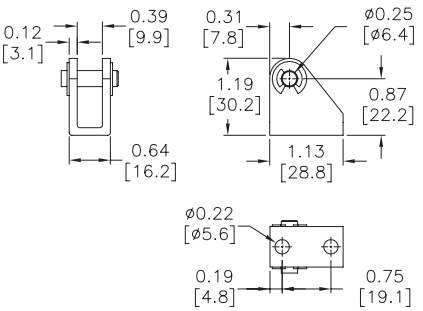
FMB-11





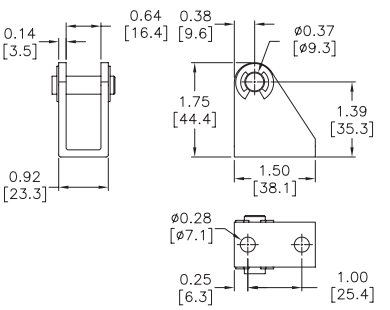
FPBP-2





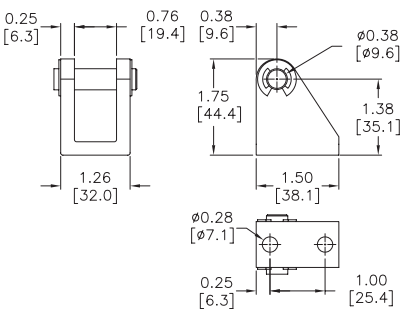
FPBP-3



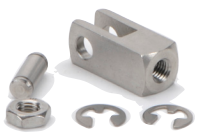


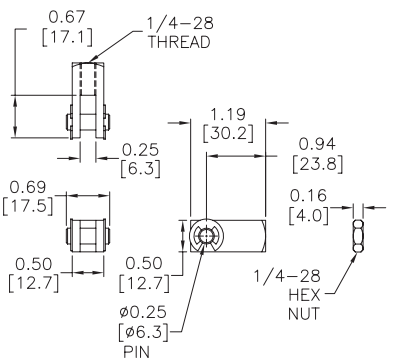
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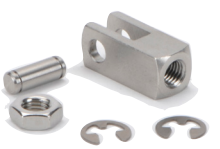


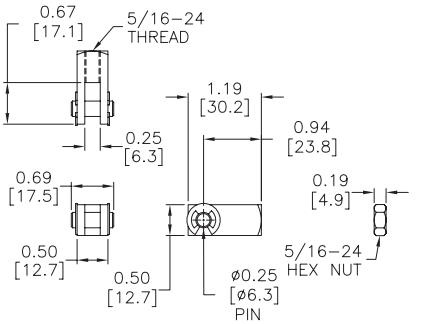
FRC-14-28





FRC-516-24



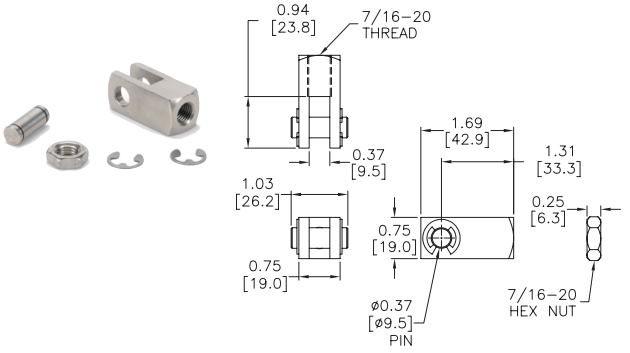


F-Series All Stainless Steel Pneumatic Cylinder Accessories

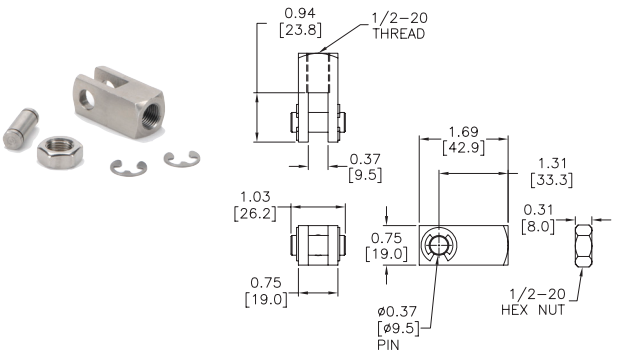
Dimensions

inches [mm]

FRC-716-20



FRC-12-20



Pneumatic Cylinders - C-Series

Nitra Pneumatic Compact Air Cylinders

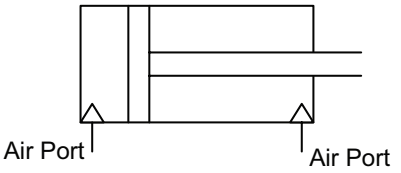
The NITRA Pneumatics C-Series compact cylinders includes bore sizes from 9/16″ to 3″ and stroke lengths from 1/4″ to 4″ to meet a broad range of applications where space is limited. These high quality cylinders are constructed with stainless steel bodies and high strength aluminum alloy end caps. To minimize friction the inside of the cylinder body is polished to a mirror finish and all cylinders are factory lubricated for optimum performance and long, reliable life. The compact piston is securely connected to a piston rod that is ground and polished 303 stainless steel. Oil impregnated bronze rod guide bushing and Buna-N o-ring piston and rod seals ensure smooth reliable operation.

Features

- Interchangeable with other common brands of compact cylinders
- Available bore sizes: 9/16”, 3/4”, 1-1/16”, 1-1/2”, 2”, 2-1/2”, 3”
- Excellent selection of stroke lengths
- All models are double-acting
- Head and tail caps drilled for mounting
- Type 304 stainless steel body with high-strength aluminum alloy end caps
- Factory lubricated for long, low-maintenance operation
- 200 psi operating pressure (150 psi for 2” and larger bores)
- All models are available for same-day shipment
- Made in the USA

Operation

Double-acting cylinders have two compressed air ports. One of the ports will extend the rod in the “push” direction and the other port will retract the rod in the “pull” directon.

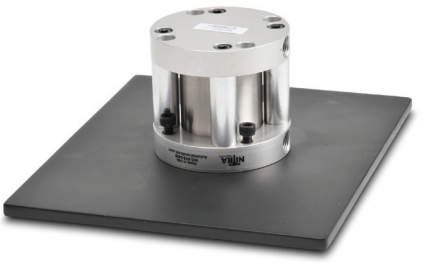


Double-Acting Cylinder
(Force in Push and Pull Direction)

Mounting Options

Plate mount: The cylinder has holes that allow easy mounting to a plate or other surfaces.



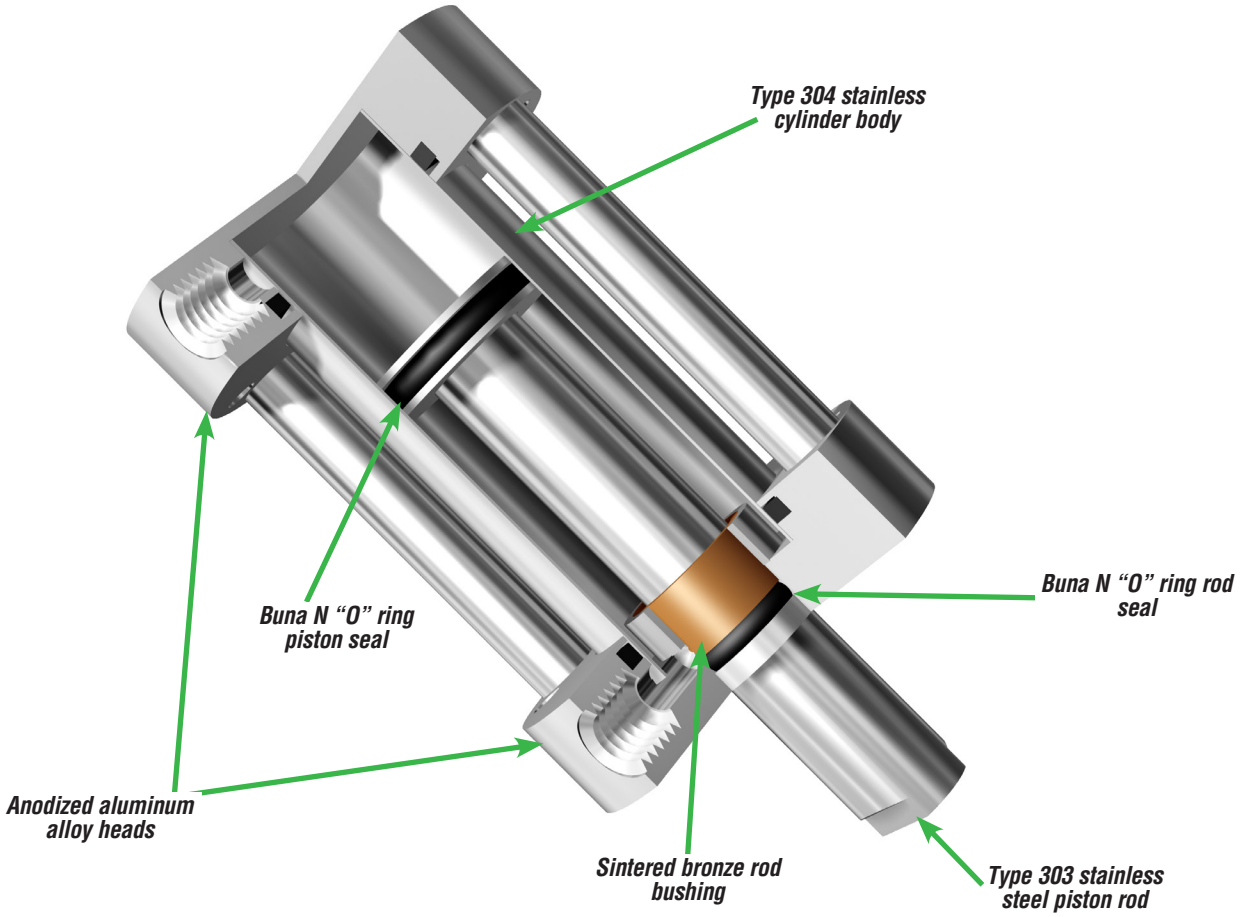


Clevis bracket mount uses a bracket that allows a pivoted mount.Clevis Bracket part number is CCB-40.



C-Series Compact Pneumatic Cylinders

Cylinder Features



C-Series Pneumatic Cylinders 9/16 inch Bore

Double-acting



Part no. C090025D

NITRA pneumatic cylinder, stainless steel body, 9/16 inch bore, #10-32 ports, double-acting, single end rod, counter-bored mounting holes, interchangeable with other brands. 2-year warranty.

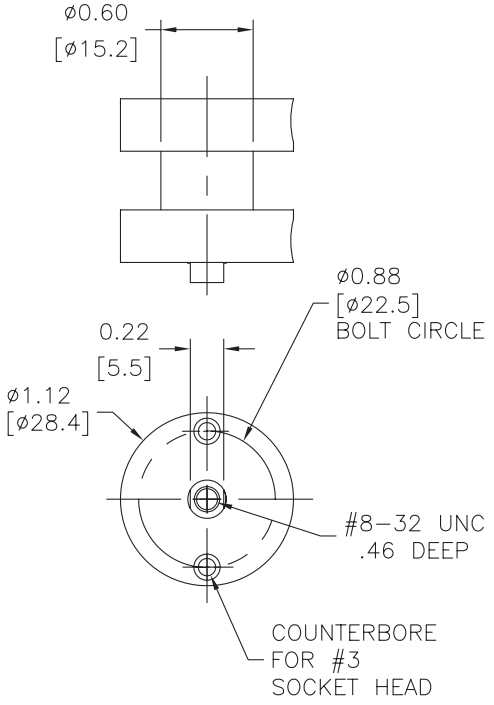
Cylinder, 9/16 in. bore, double-acting				
Part Number	***Stroke Length (in.)***	***"A" (in)***	***Weight (lb)***	***Price***
C090025D	0.25	0.81	0.09	$37.00
C09005D	0.50	1.06	0.10	$37.50
Specifications				
304 SS cylinder body		0.25 sq. in. piston area		
High strength aluminum end caps		Pre-lubricated for maintenance-free life		
303 SS piston rod		Pressure rating 200 psi		
Buna-N o-ring seals		Temperature range -20°F to 150°F (-28° to 66°C)		
Extend force at 100 psi = 25.0 lb.		Retract force at 100 psi = 19.9 lb.		

Accessories

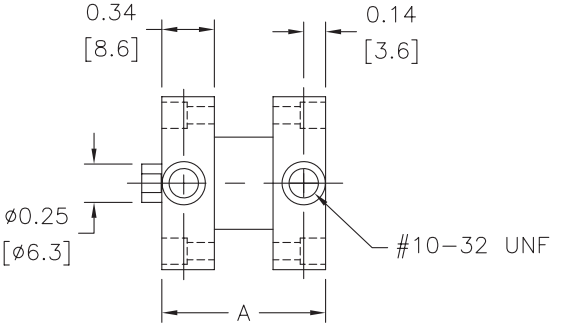
Part No.	***Description***	***Price***
CCB-17	Clevis bracket, anodized aluminum, stainless steel pin, for use with 9/16, 3/4 and 1-1/16 inch bore NITRA C-series compact cylinders	$17.00
CRP-09	Rod eye, #8-32 UNC threads, zinc plated, high strength, heat treated alloy steel, bronze pivot bushing and nut for use with 9/16 inch bore NITRA C-series compact cylinders	$10.50

See end of C-Series cylinder section for additional accessory details.

Dimensions



Cylinder assembly bolts not shown for clarity



Dimensions inches [mm]

C-Series Pneumatic Cylinders 3/4 inch Bore

Double-acting



Part no. C12005D

NITRA pneumatic cylinder, stainless steel body, 3/4 inch bore, #10-32 ports, double-acting, single end rod, counter-bored mounting holes, interchangeable with other brands. 2-year warranty.

Cylinder, 3/4 in. bore, double-acting				
Part Number	***Stroke Length (in.)***	***"A" (in.)***	***Weight (lb.)***	***Price***
C12005D	0.50	1.06	0.14	$39.50
C120075D	0.75	1.31	0.16	$40.00
C12010D	1.00	1.56	0.17	$40.50
C12015D	1.50	2.06	0.19	$41.50

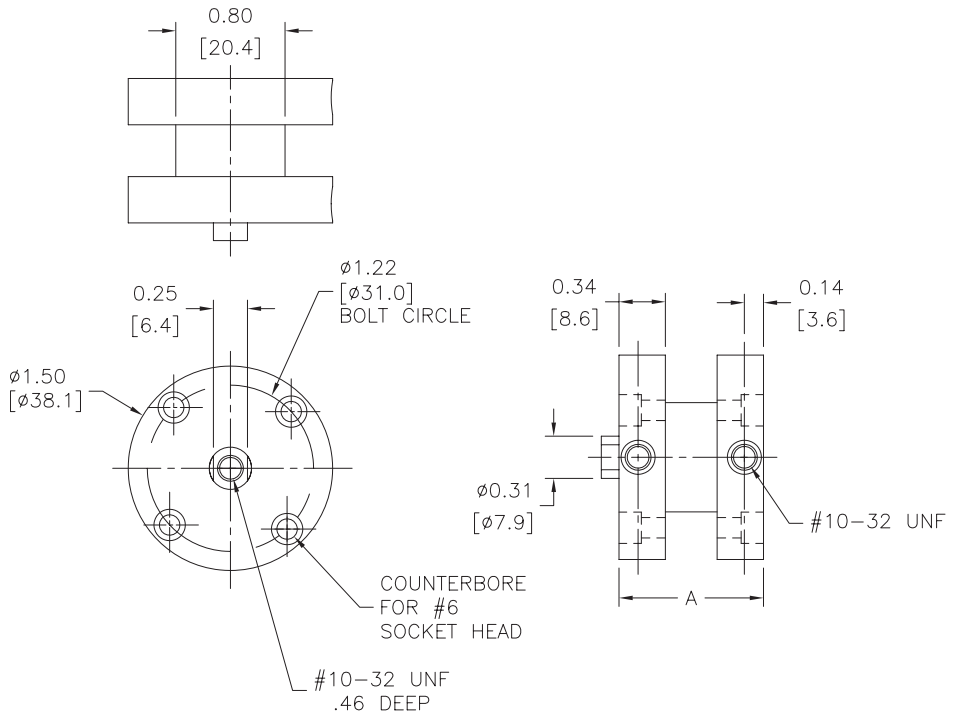
Specifications	
304 SS cylinder body	0.44 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 200 psi
Buna-N o-ring seals	Temperature range -20°F to 150°F (-28° to 66°C)
Extend force at 100 psi = 44.2 lb.	Retract force at 100 psi = 36.5 lb.

Accessories

Part No.	***Description***	***Price***
CCB-17	Clevis bracket, anodized aluminum, stainless steel pin, for use with 9/16, 3/4 and 1-1/16 inch bore NITRA C-series compact cylinders	$17.00
CRP-12	Rod eye, #10-32 UNF threads, zinc plated, high strength, heat treated alloy steel, bronze pivot bushing and nut for use with 3/4 inch bore NITRA C-series compact cylinders	$11.50

See end of C-Series cylinder section for additional accessory details.

Dimensions



Cylinder assembly bolts not shown for clarity

Dimensions inches [mm]

C-Series Pneumatic Cylinders 1-1/16 inch Bore

Double-acting



Part no. C17005D

NITRA pneumatic cylinder, stainless steel body, 1-1/16 inch bore, 1/8 inch NPT ports, double-acting, single end rod, counter-bored mounting holes, interchangeable with other brands. 2-year warranty.

Cylinder, 1-1/16 in. bore, double-acting				
Part Number	***Stroke Length (in.)***	***"A" (in.)***	***Weight (lb.)***	***Price***
C170025D	0.25	1.13	0.34	$49.50
C17005D	0.50	1.38	0.38	$49.50
C170075D	0.75	1.63	0.42	$50.00
C17010D	1.00	1.88	0.46	$50.50
C17015D	1.50	2.38	0.53	$51.50
C17020D	2.00	2.88	0.61	$53.00
C17025D	2.50	3.38	0.68	$55.00
C17030D	3.00	3.88	0.76	$57.00

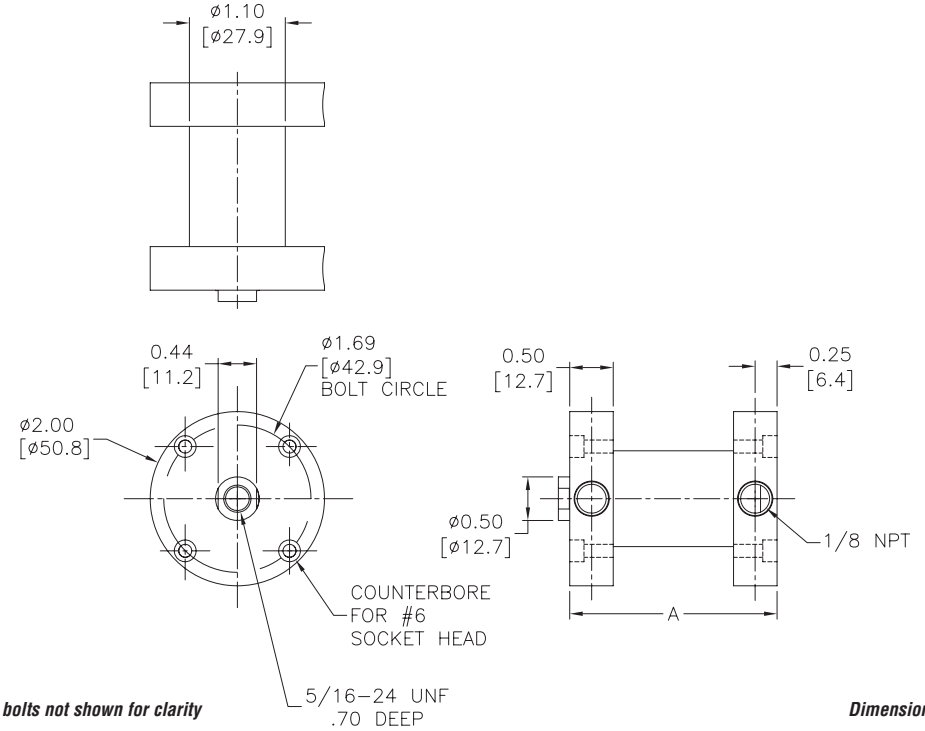
Specifications	
304 SS cylinder body	0.89 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS steel piston rod	Pressure rating 200 psi
Buna-N o-ring seals	Temperature range -20°F to 150°F (-28° to 66°C)
Extend force at 100 psi = 88.7 lb.	Retract force at 100 psi = 69.0 lb.

Accessories

Part No.	***Description***	***Price***
CCB-17	Clevis bracket, anodized aluminum, stainless steel pin, for use with 9/16, 3/4 and 1-1/16 inch bore NITRA C-series compact cylinders	$17.00
CRP-17	Rod eye, 5/16-24 UNF threads, zinc plated, high strength, heat treated alloy steel, bronze pivot bushing and nut for use with 1-1/16 inch bore NITRA C-series compact cylinders	$11.50

See end of C-Series cylinder section for additional accessory details.

Dimensions



Cylinder assembly bolts not shown for clarity

Dimensions inches [mm]

C-Series Pneumatic Cylinders 1-1/2 inch Bore

Double-acting



NITRA pneumatic cylinder, stainless steel body, 1-1/2 inch bore, 1/8 inch NPT ports, double-acting, single end rod, counter-bored mounting holes, interchangeable with other brands. 2-year warranty.

Part no. C24005D

Cylinder, 1-1/2 in. bore, double-acting				
Part Number	***Stroke Length (in.)***	***"A" (in.)***	***Weight (lb.)***	***Price***
C24005D	0.50	1.38	0.70	$60.00
C240075D	0.75	1.63	0.75	$60.00
C24010D	1.00	1.88	0.80	$62.00
C24015D	1.50	2.38	0.90	$64.00
C24020D	2.00	2.88	1.00	$66.00
C24025D	2.50	3.38	1.10	$68.00
C24030D	3.00	3.88	1.20	$70.00
C24035D	3.50	4.38	1.30	$52.50
C24040D	4.00	4.88	1.40	$76.00

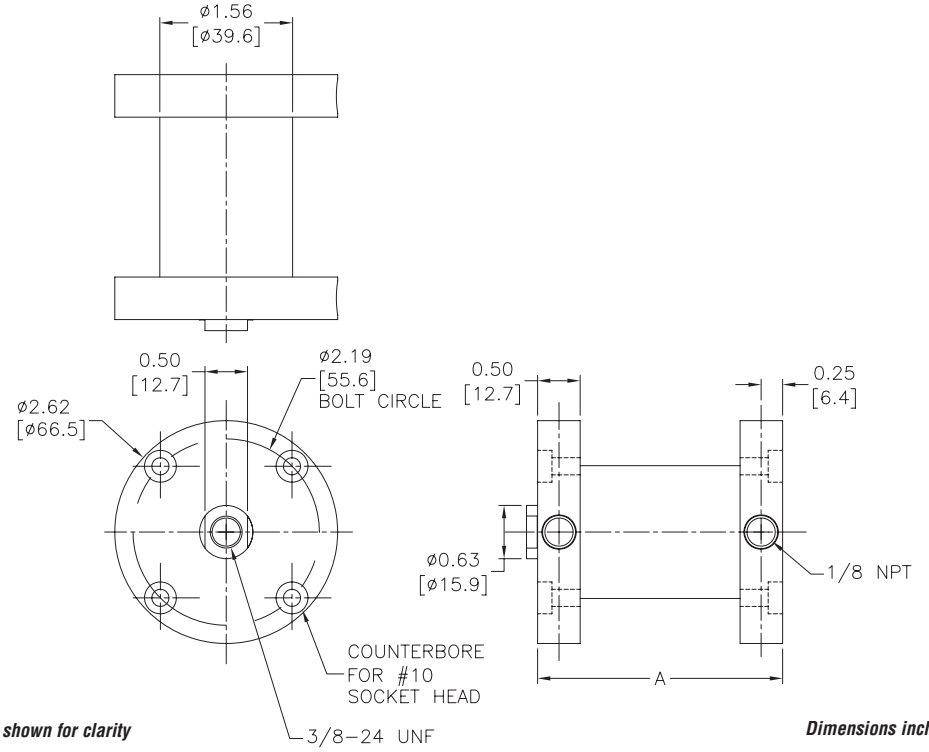
Specifications	
304 SS cylinder body	1.77 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 200 psi
Buna-N o-ring seals	Temperature range -20°F to 150°F (-28° to 66°C)
Extend force at 100 psi = 176.7 lb.	Retract force at 100 psi = 146.0 lb.

Accessories

Part No.	***Description***	***Price***
CCB-40	Clevis bracket, anodized aluminum, stainless steel pin, for use with 1-1/2, 2 and 2-1/2 inch bore NITRA C-series compact cylinders	$23.00
CRP-24	Rod eye, 3/8-24 UNF threads, zinc plated, high strength, heat treated alloy steel, bronze pivot bushing and nut for use with 1-1/2 inch bore NITRA C-series compact cylinders	$12.00

See end of C-Series cylinder section for additional accessory details.

Dimensions

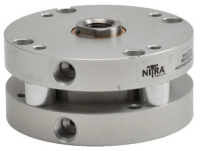


Cylinder assembly bolts not shown for clarity

Dimensions inches [mm]

C-Series Pneumatic Cylinders 2 inch Bore

Double-acting



Part no. C32005D

NITRA pneumatic cylinder, stainless steel body, 2 inch bore, 1/8 inch NPT ports, double-acting, single end rod, counter-bored mounting holes, interchangeable with other brands. 2-year warranty.

Cylinder, 2 in. bore, double-acting				
Part Number	***Stroke Length (in.)***	***"A" (in.)***	***Weight (lb.)***	***Price***
C32005D	0.50	1.44	0.94	$71.00
C320075D	0.75	1.69	1.00	$71.00
C32010D	1.00	1.94	1.06	$72.00
C32015D	1.50	2.44	1.19	$76.00
C32020D	2.00	2.94	1.31	$80.00
C32025D	2.50	3.44	1.44	$83.00
C32030D	3.00	3.94	1.56	$87.00
C32035D	3.50	4.44	1.69	$89.00

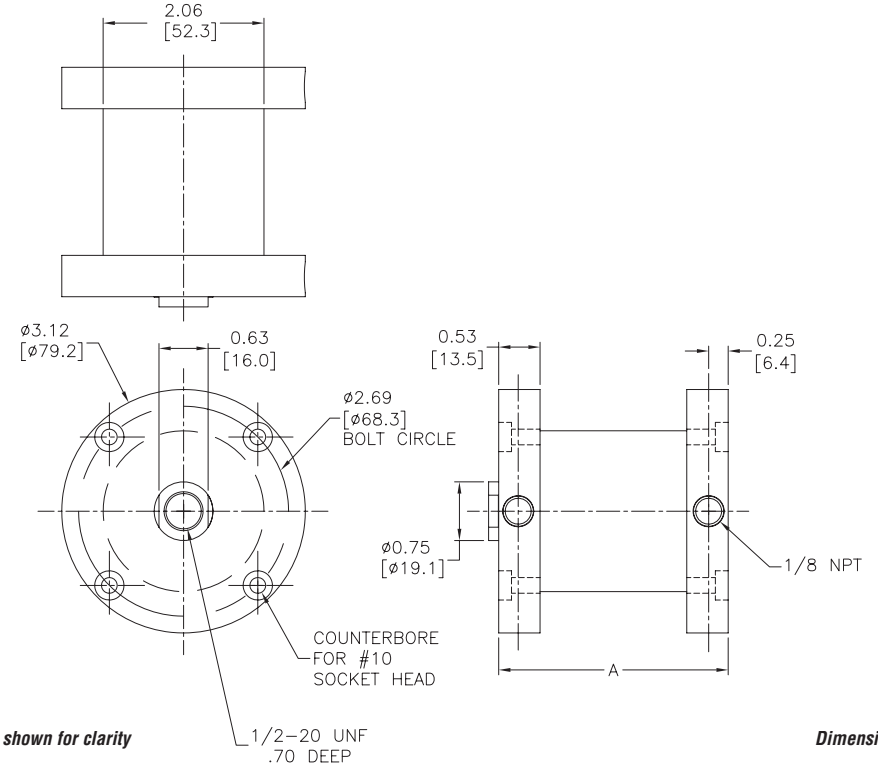
Specifications	
304 SS cylinder body	3.14 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 150 psi
Buna-N o-ring seals	Temperature range -20°F to 150°F (-28° to 66°C)
Extend force at 100 psi = 314.2 lb.	Retract force at 100 psi = 270.0 lb.

Accessories

Part No.	***Description***	***Price***
CCB-40	Clevis bracket, anodized aluminum, stainless steel pin, for use with 1-1/2, 2 and 2-1/2 inch bore NITRA C-series compact cylinders	$23.00
CRP-40	Rod eye, 1/2-20 UNF threads, zinc plated, high strength, heat treated alloy steel, bronze pivot bushing and nut for use with 2 or 2-1/2 inch bore NITRA C-series compact cylinders	$12.00

See end of C-Series cylinder section for additional accessory details.

Dimensions

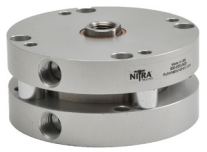


Cylinder assembly bolts not shown for clarity

Dimensions inches [mm]

C-Series Pneumatic Cylinders 2-1/2 inch Bore

Double-acting



NITRA pneumatic cylinder, stainless steel body, 2-1/2 inch bore, 1/4 inch NPT ports, double-acting, single end rod, counter-bored mounting holes, interchangeable with other brands. 2-year warranty.

Part no. C40005D

Cylinder, 2-1/2 in. bore, double-acting				
Part Number	***Stroke Length (in.)***	***"A" (in.)***	***Weight (lb.)***	***Price***
C40005D	0.50	1.69	1.55	$90.00
C40010D	1.00	2.19	1.70	$93.00
C40020D	2.00	3.19	2.00	$99.00
C40025D	2.50	3.69	2.15	$104.00

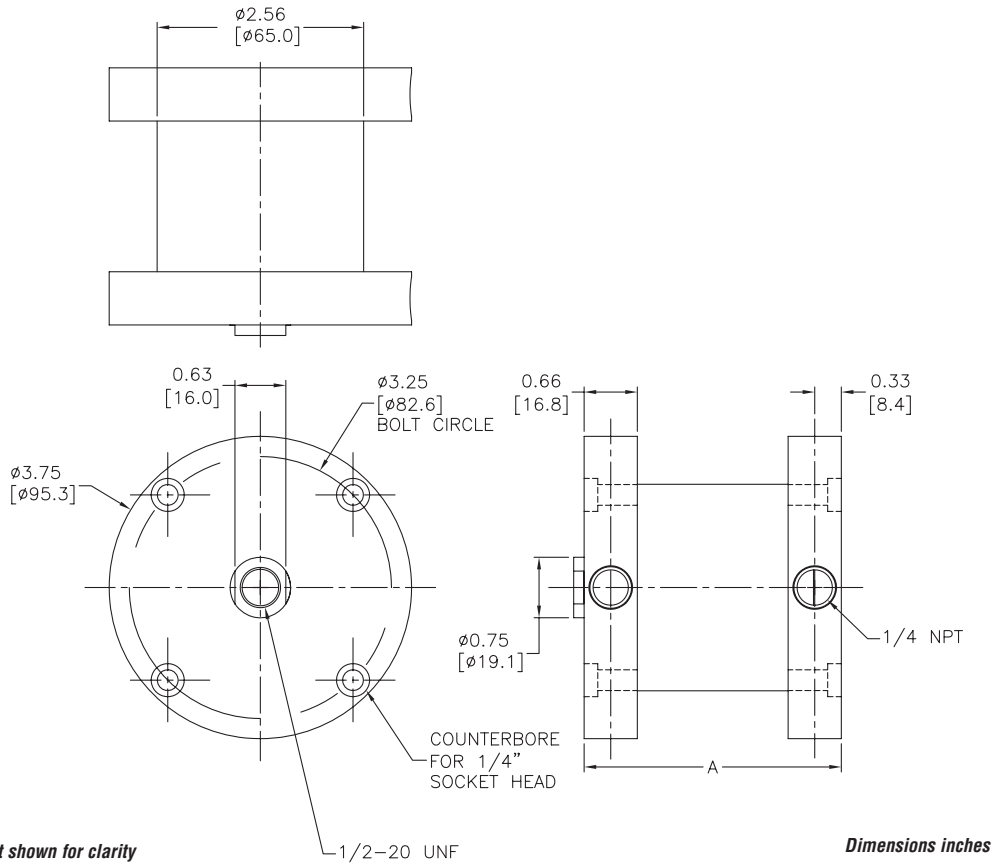
Specifications	
304 SS cylinder body	4.91 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 150 psi
Buna-N o-ring seals	Temperature range -20°F to 150°F (-28° to 66°C)
Extend force at 100 psi = 490.1 lb.	Retract force at 100 psi = 446.7 lb.

Accessories

Part No.	***Description***	***Price***
CCB-40	Clevis bracket, anodized aluminum, stainless steel pin, for use with 1-1/2, 2 and 2-1/2 inch bore NITRA C-series compact cylinders	$23.00
CRP-40	Rod eye, 1/2-20 UNF threads, zinc plated, high strength, heat treated alloy steel, bronze pivot bushing and nut for use with 2 or 2-1/2 inch bore NITRA C-series compact cylinders	$12.00

See end of C-Series cylinder section for additional accessory details.

Dimensions

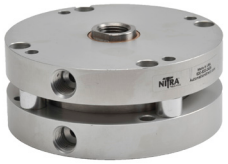


Cylinder assembly bolts not shown for clarity

Dimensions inches [mm]

C-Series Pneumatic Cylinders 3 inch Bore

Double-acting



Part no. C48005D

NITRA pneumatic cylinder, stainless steel body, 3 inch bore, 1/4 inch NPT ports, double-acting, single end rod, counter-bored mounting holes, interchangeable with other brands. 2-year warranty.

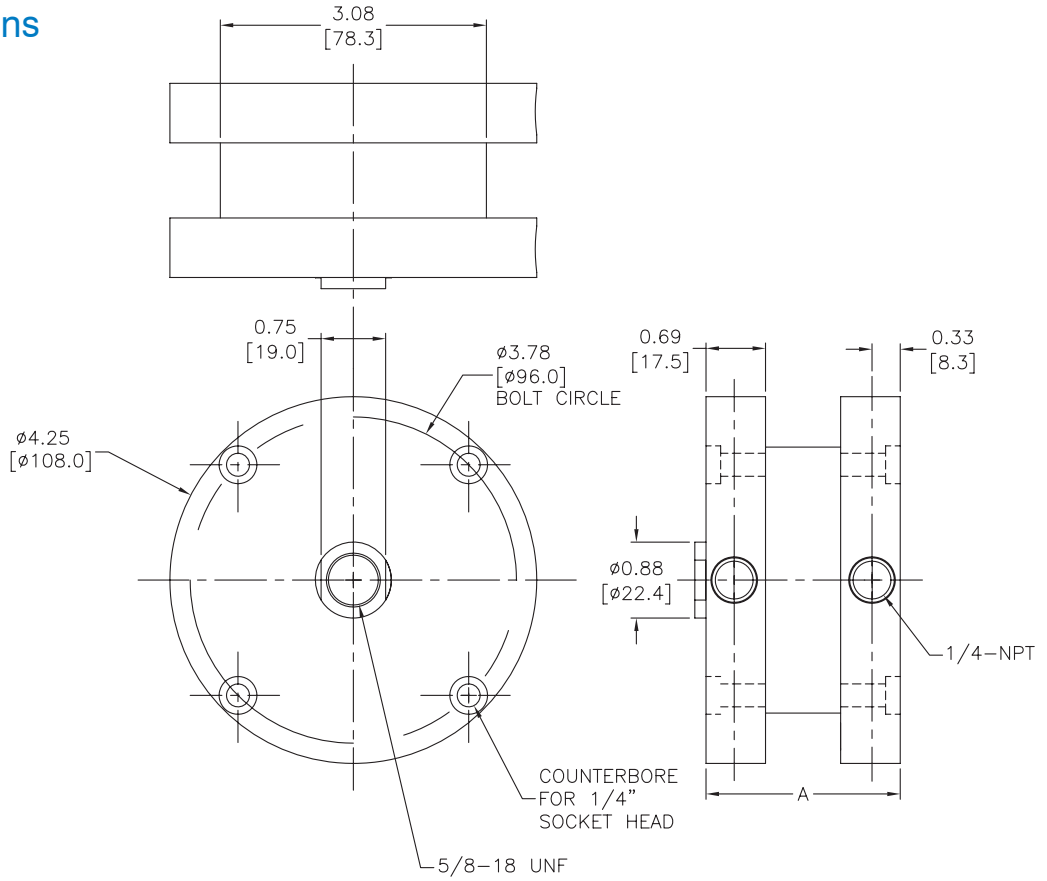
Cylinder, 3 in. bore, double-acting				
Part Number	***Stroke Length (in.)***	***"A" (in.)***	***Weight (lb.)***	***Price***
C48005D	0.50	1.75	2.01	$108.00
C48010D	1.00	2.25	2.21	$110.00
Specifications				
304 SS cylinder body		7.07 sq. in. piston area		
High strength aluminum end caps		Pre-lubricated for maintenance-free life		
303 SS steel piston rod		Pressure rating 150 psi		
Buna-N o-ring seals		Temperature range -20°F to 150°F (-28° to 66°C)		
Extend force at 100 psi = 706.9 lb.		Retract force at 100 psi = 646.7 lb.		

Accessories

Part No.	***Description***	***Price***
CCB-48	Clevis bracket, anodized aluminum, stainless steel pin, for use with 3 inch bore NITRA C-series compact cylinders	$32.00
CRP-48	Rod eye, 5/8-18 UNF threads, zinc plated, high strength, heat treated alloy steel, bronze pivot bushing and nut for use with 3 inch bore NITRA C-series compact cylinders	$14.00

See end of C-Series cylinder section for additional accessory details.

Dimensions



Cylinder assembly bolts not shown for clarity

Dimensions inches [mm]

C-Series Pneumatic Cylinders Accessories

C-Series Pneumatic Cylinder Accessories				
Part Number	**Description**	**Pcs/Pkg**	**Wt (lb)**	**Price**
CCB-17	Clevis bracket, anodized aluminum, stainless steel pin, for use with CRP-09, CRP-12 or CRP-17 Rod Eyes	1	0.20	$17.00
CCB-40	Clevis bracket, anodized aluminum, stainless steel pin, for use with CRP-24 or CRP-40 Rod Eyes	1	0.30	$23.00
CCB-48	Clevis bracket, anodized aluminum, stainless steel pin, for use with CRP-48 Rod Eye	1	0.40	$32.00
CRP-09	Rod eye, #8-32 UNC threads, zinc plated, high strength, heat treated alloy steel, bronze pivot bushing and nut for use with 9/16 inch bore NITRA C-series compact cylinders	1	0.10	$10.50
CRP-12	Rod eye, #10-32 UNF threads, zinc plated, high strength, heat treated alloy steel, bronze pivot bushing and nut for use with 3/4 inch bore NITRA C-series compact cylinders	1	0.10	$11.50
CRP-17	Rod eye, 5/16-24 UNF threads, zinc plated, high strength, heat treated alloy steel, bronze pivot bushing and nut for use with 1-1/16 inch bore NITRA C-series compact cylinders	1	0.20	$11.50
CRP-24	Rod eye, 3/8-24 UNF threads, zinc plated, high strength, heat treated alloy steel, bronze pivot bushing and nut for use with 1-1/2 inch bore NITRA C-series compact cylinders	1	0.30	$12.00
CRP-40	Rod eye, 1/2-20 UNF threads, zinc plated, high strength, heat treated alloy steel, bronze pivot bushing and nut for use with 2 or 2-1/2 inch bore NITRA C-series compact cylinders	1	0.40	$12.00
CRP-48	Rod eye, 5/8-18 UNF threads, zinc plated, high strength, heat treated alloy steel, bronze pivot bushing and nut for use with 3 inch bore NITRA C-series compact cylinders	1	0.50	$14.00

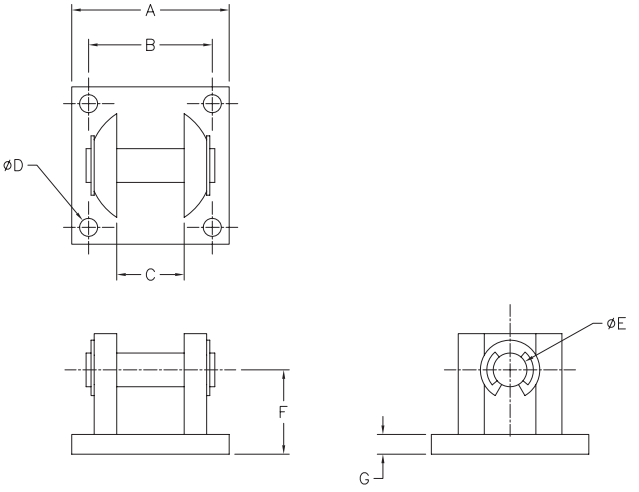


Photo shows C-series pneumatic cylinder with optional clevis bracket and rod eye.

CCB Clevis Brackets



Part No. CCB-40



PART NUMBER	A	B	C	D	E	F	G
CCB–17	1.00 [25.4]	0.75 [19.1]	0.39 [9.9]	#6	0.19 [4.8]	0.56 [14.2]	0.16 [4.1]
CCB–40	1.75 [44.5]	1.38 [35.1]	0.75 [19.1]	#10	0.38 [9.7]	0.94 [23.9]	0.22 [5.6]
CCB–48	2.50 [63.5]	2.00 [50.8]	1.00 [25.4]	0.25 [6.4]	0.63 [16.0]	1.25 [31.8]	0.25 [6.4]

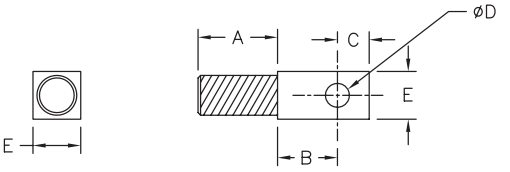
Dimensions inches [mm]

C-Series Pneumatic Cylinders Accessories

CRP Rod Eyes



Part No. CRP-24



PART NUMBER	CYLINDER BORE SIZE	THREAD SIZE	A	B	C	øD	E
CRP–09	9/16" [14.3]	#8–32 UNC	0.38 [9.6]	0.47 [11.9]	0.25 [6.4]	0.19 [4.8]	0.38 [9.6]
CRP–12	3/4" [19.1]	#10–32 UNF	0.38 [9.6]	0.47 [11.9]	0.25 [6.4]	0.19 [4.8]	0.38 [9.6]
CRP–17	1 1/16" [27.0]	5/16–24 UNF	0.63 [16.0]	0.47 [11.9]	0.25 [6.4]	0.19 [4.8]	0.38 [9.6]
CRP–24	1 1/2" [38.1]	3/8–24 UNF	0.63 [16.0]	0.72 [18.3]	0.44 [11.2]	0.38 [9.6]	0.75 [19.1]
CRP–40	2.00" [50.8]	1/2–20 UNF	0.75 [19.1]	0.72 [18.3]	0.44 [11.2]	0.38 [9.6]	0.75 [19.1]
CRP–40	2 1/2" [63.5]	1/2–20 UNF	0.75 [19.1]	0.72 [18.3]	0.44 [11.2]	0.38 [9.6]	0.75 [19.1]
CRP–48	3.00" [76.2]	5/8–18 UNF	0.88 [22.4]	1.00 [25.4]	0.63 [16.0]	0.63 [16.0]	1.00 [25.4]

Dimensions inches [mm]

D-Series Heavy Duty Pneumatic Cylinders

Nitra Heavy Duty Pneumatic Air Cylinders

The NITRA Pneumatics D-Series heavy duty cylinders include bore sizes from 1-1/2″ to 4″ and stroke lengths from 1″ to 24″ to meet a broad range of applications where abusive conditions exist. These heavy duty cylinders are constructed with high quality aluminum components and a magnetic piston fitted with a PTFE wear band.

The cylinders are fitted with a Teflon® impregnated and hard-coat anodized heavy-duty external rod bearing. This bearing ensures smooth rod motion while maintaining rod rigidity and stability.

All D-Series cylinders have a magnetic piston that can be used along with solid state or reed switches for rod position sensing. The solid state and reed switches sense the rod position by emitting an electrical signal when the magnetized piston reaches a point adjacent to their location. Tie rod mounting allows fast and accurate positioning setup.

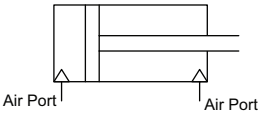
Cushioned cylinders are also available to provide end-of-stroke deceleration at both ends. The cushions decelerate the piston rod at the end-of-stroke and are adjustable with a flat head screwdriver.

Features

- Interchangeable with other popular brands of NFPA cylinders
- Available bore sizes: 1-1/2”, 2”, 2-1/2”, 3-1/4”, 4”
- Wide selection of stroke lengths
- All models are double-acting
- Head and tail caps drilled for mounting
- All models have a magnetic piston
- Teflon® impregnated and hardcoat anodized heavy-duty external rod bearing
- 250 psi max operating pressure
- Some models available with adjustable cushions (both ends)
- Made in the USA
- All models are typically available for same-day shipment

Operation

Double-acting cylinders have two compressed air ports. One of the ports will extend the rod in the “push” direction and the other port will retract the rod in the “pull” direction.



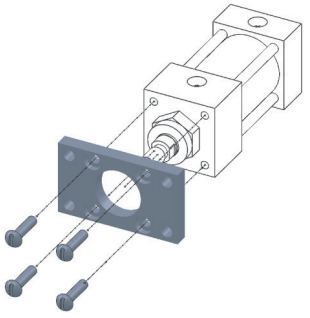
Double-Acting Cylinder
(Force in Push and Pull Direction)

Mounting Options

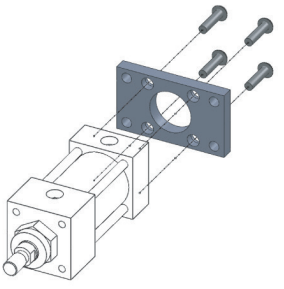
Flange Mounted:

The cylinder has holes on the ends of the end caps that allow easy mounting to a plate or other surfaces. See Flange Mount Kits in Accessories section.

Front Flange Mount (MF1)



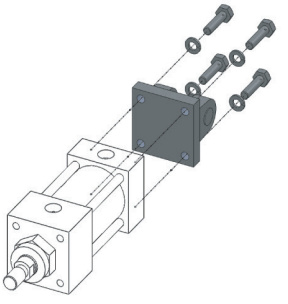
Rear Flange Mount (MF2)



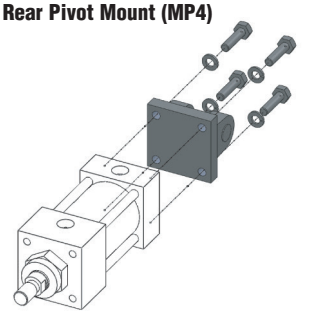
Rear Clevis and Rear Pivot Mount:

Clevis and Pivot mounts use a bracket that allows a pivoted mount. See Rear Clevis and Pivot Attachments in Accessories section.

Rear Clevis Mount (MP2)



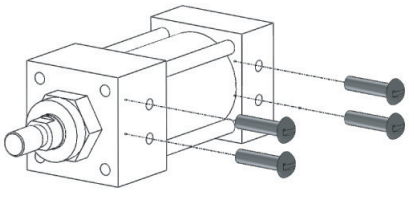
Rear Pivot Mount (MP4)



Side Mounted:

The cylinder has holes on the sides of the end caps that allow easy mounting to a surface. No mounting kit needed, only bolts.

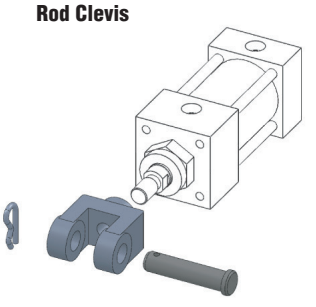
Side Tap Mount (MS4)



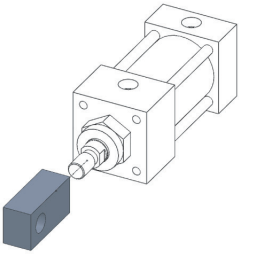
Rod Clevis:

The Rod Clevis uses a rod-mounted bracket and pin that allows a pivoted mount. Rod Eye uses a rod-mounted block with eye that allows a pivoted mount. See Accessories Section.

Rod Clevis

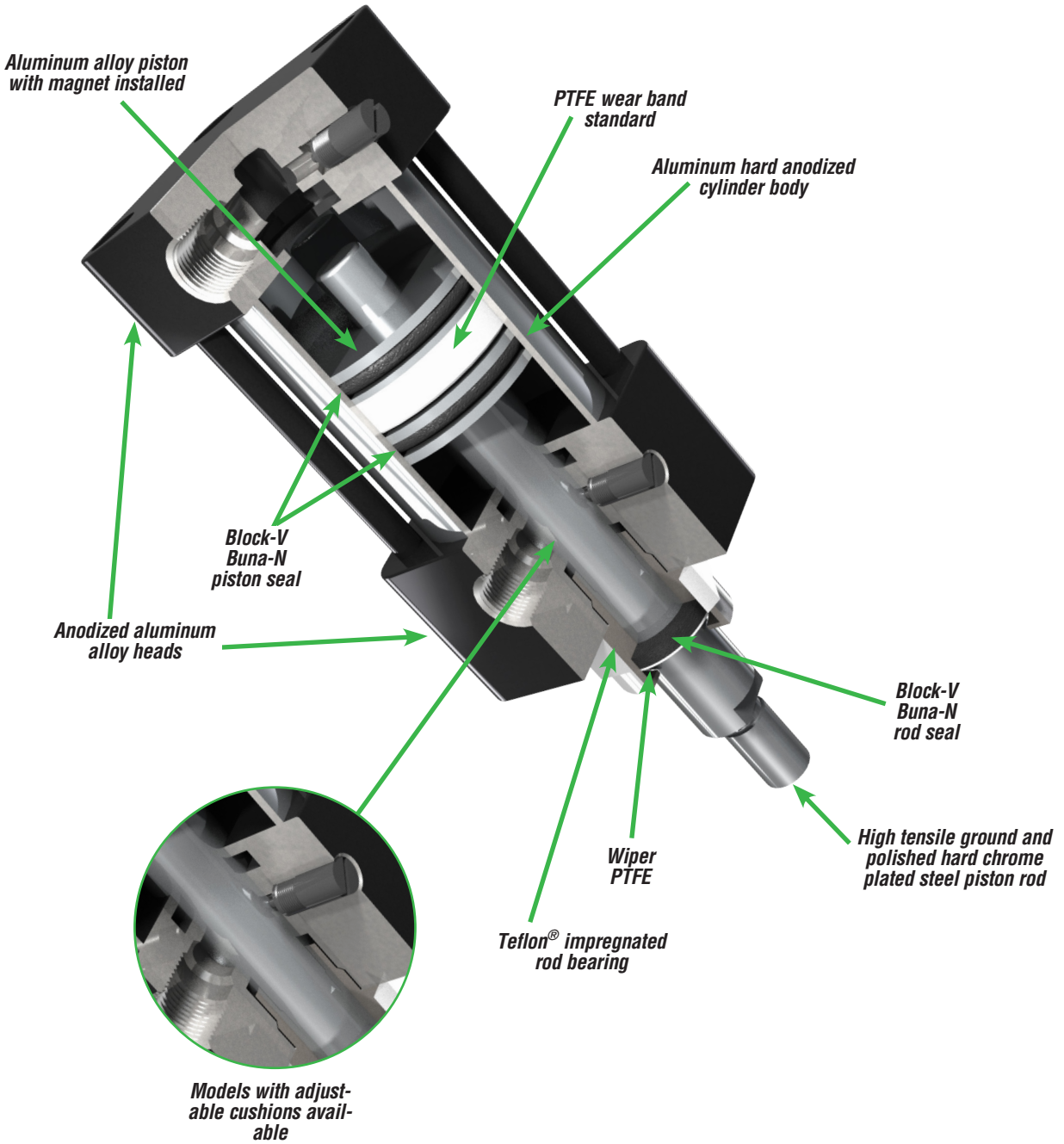


Rod Eye



D-Series Heavy Duty Pneumatic Cylinders

Cylinder Features



D-Series Heavy Duty Pneumatic Cylinders – 1-1/2 inch Bore

1-1/2 in. Bore, Double-acting, Tapped End Caps, Magnetic Piston



Part no. D24060DT-M

NITRA heavy duty pneumatic, NFPA interchangeable cylinder, 1-1/2 inch bore, 5/8" diameter piston rod, 1/4" female NPT ports, double acting, tapped end caps and one side for mount; flange, pivot and clevis mount options available. Some models available with cushions on both ends.

1-1/2 in bore, double acting, tapped end caps

Part Number no Cushions	Part Number w/ Cushions*	Stroke Length (in)	"A" (in [mm])	Weight (lb)	Price
D24010DT-M	D24010DT-MC	1	4.63 [117.6]	1.5	$101.00
D24020DT-M	D24020DT-MC	2	5.63 [143.0]	1.7	$103.00
D24030DT-M	D24030DT-MC	3	6.63 [168.4]	1.9	$106.00
D24040DT-M	D24040DT-MC	4	7.63 [193.8]	2.2	$109.00
D24050DT-M	D24050DT-MC	5	8.63 [219.2]	2.4	$107.00
D24060DT-M	D24060DT-MC	6	9.63 [244.6]	2.6	$114.00
D24070DT-M	–	7	10.63 [270.0]	2.8	$118.00
D24080DT-M	D24080DT-MC	8	11.63 [295.4]	3.0	$121.00
D24090DT-M	–	9	12.63 [320.8]	3.3	$124.00
D24100DT-M	D24100DT-MC	10	13.63 [346.2]	3.5	$126.00
D24110DT-M	–	11	14.63 [371.6]	3.7	$129.00
D24120DT-M	D24120DT-MC	12	15.63 [397.0]	3.9	$132.00
D24140DT-M	–	14	17.63 [447.8]	4.4	$138.00
D24160DT-M	D24160DT-MC	16	19.63 [498.6]	4.8	$144.00
D24180DT-M	–	18	21.63 [549.4]	5.3	$149.00
D24200DT-M	D24200DT-MC	20	23.63 [600.2]	5.7	$155.00
D24220DT-M	–	22	25.63 [651.0]	6.1	$161.00
D24240DT-M	D24240DT-MC	24	27.63 [701.8]	6.6	$167.00

** The cushions decelerate the piston rod over the last 11/16 inch (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.*

Specifications

Aluminum hard anodized to 60 Rc cylinder body	1.77 sq. in. piston area
Solid aluminum bar, black anodized end caps	Pressure rating 250 psi, AIR ONLY
High tensile ground and polished hard chrome plated steel piston rod	Non-detergent petroleum based oil is recommended
Low friction Buna-N seals	Temperature range -40°F to 250°F (-40 to 121°C)
Extend force at 100 psi = 177 lb.	Retract force at 100 psi = 146 lb.
Filtration: Not essential, however a standard 40 micron filter placed upstream will prolong seal life.	

Mounting Accessories

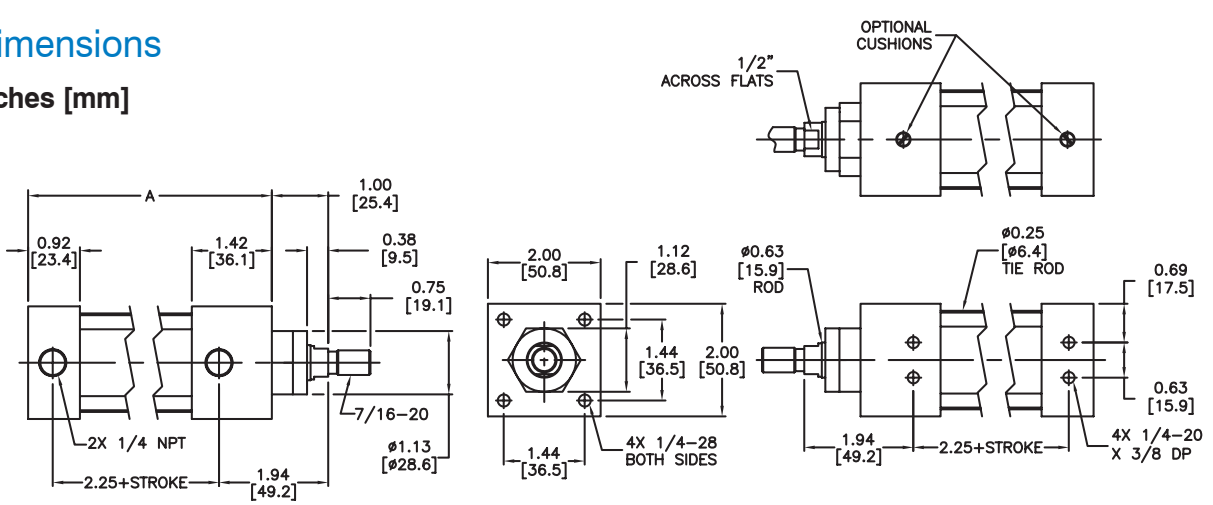
Style	NFPA Designation	Part No.
Front Flange	MF1	DFM-1
Rear Flange	MF2	DFM-1
Rear Clevis	MP2	DPC-1
Rear Pivot	MP4	DPA-1

Rod Accessories

Style	Part No.
Rod Clevis	DRC-2
Rod Pivot	DRE-1

Dimensions

inches [mm]



D-Series Heavy Duty Pneumatic Cylinders – 2 inch Bore

2 in. Bore, Double-acting, Tapped End Caps, Magnetic Piston



Part no. D32060DT-M

NITRA heavy duty pneumatic, NFPA interchangeable cylinder, 2 inch bore, 5/8" diameter piston rod, 1/4" female NPT ports, double acting, tapped end caps and one side for mount, flange, pivot and clevis mount options available. Some models available with cushions on both ends.

2 in bore, double acting, tapped end caps						
Part Number no Cushions	Price	Part Number w/ Cushions*	Price	Stroke Length (in)	"A" (in [mm])	Weight (lb)
D32010DT-M	$118.00	D32010DT-MC	$191.00	1	4.63 [117.6]	2.5
D32020DT-M	$121.00	D32020DT-MC	$195.00	2	5.63 [143.0]	2.7
D32030DT-M	$124.00	D32030DT-MC	$199.00	3	6.63 [168.4]	2.9
D32040DT-M	$127.00	D32040DT-MC	$203.00	4	7.63 [193.8]	3.2
D32050DT-M	$130.00	D32050DT-MC	$207.00	5	8.63 [219.2]	3.4
D32060DT-M	$133.00	D32060DT-MC	$210.00	6	9.63 [244.6]	3.7
D32070DT-M	$137.00	–		7	10.63 [270.0]	3.9
D32080DT-M	$140.00	D32080DT-MC	$213.00	8	11.63 [295.4]	4.1
D32090DT-M	$143.00	–		9	12.63 [320.8]	4.4
D32100DT-M	$146.00	D32100DT-MC	$216.00	10	13.63 [346.2]	4.6
D32110DT-M	$149.00	–		11	14.63 [371.6]	4.8
D32120DT-M	$152.00	D32120DT-MC	$219.00	12	15.63 [397.0]	5.1
D32140DT-M	$159.00	–		14	17.63 [447.8]	5.6
D32160DT-M	$165.00	D32160DT-MC	$226.00	16	19.63 [498.6]	6.0
D32180DT-M	$171.00	–		18	21.63 [549.4]	6.5
D32200DT-M	$177.00	D32200DT-MC	$234.00	20	23.63 [600.2]	7.0
D32220DT-M	$184.00	–		22	25.63 [651.0]	7.5
D32240DT-M	$190.00	D32240DT-MC	$246.00	24	27.63 [701.8]	7.9

** The cushions decelerate the piston rod over the last 11/16 inch (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.*

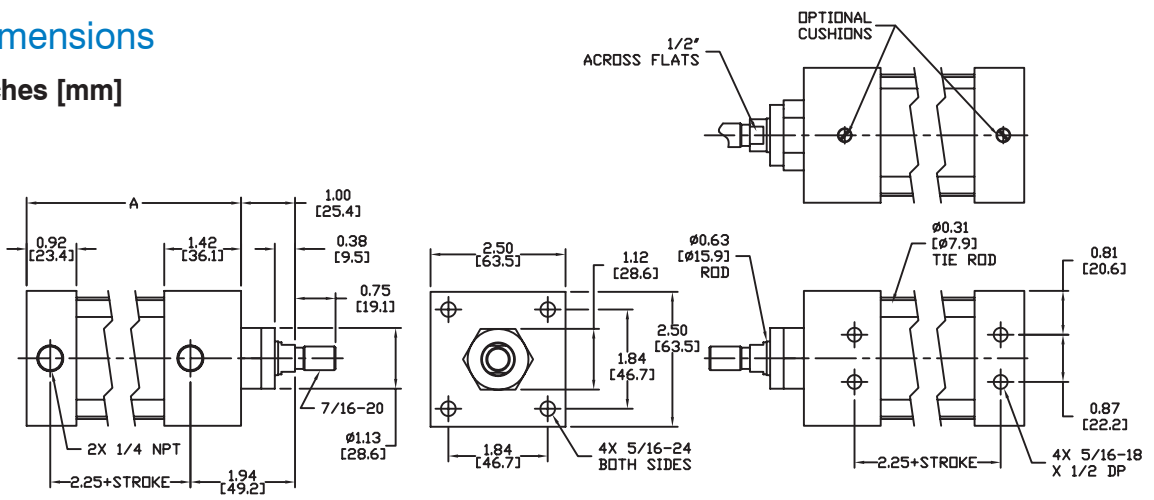
Specifications	
Aluminum hard anodized to 60 Rc cylinder body	3.14 sq. in. piston area
Solid aluminum bar, black anodized end caps	Pressure rating 250 psi, AIR ONLY
High tensile ground and polished hard chrome plated steel piston rod	Non-detergent petroleum based oil is recommended
Low friction Buna-N seals	Temperature range -40°F to 250°F (-40 to 121°C)
Extend force at 100 psi = 314 lb.	Retract force at 100 psi = 283 lb.
Filtration: Not essential, however a standard 40 micron filter placed upstream will prolong seal life.	

Mounting Accessories		
Style	NFPA Designation	Part No.
Front Flange	MF1	DFM-2
Rear Flange	MF2	DFM-2
Rear Clevis	MP2	DPC-2
Rear Pivot	MP4	DPA-2

Rod Accessories	
Style	Part No.
Rod Clevis	DRC-2
Rod Pivot	DRE-1

Dimensions

inches [mm]



D-Series Heavy Duty Pneumatic Cylinders – 2-1/2 inch Bore

2-1/2 in. Bore, Double-acting, Tapped End Caps, Magnetic Piston



Part no. D40060DT-M

NITRA heavy duty pneumatic, NFPA interchangeable cylinder, 2-1/2 inch bore, 5/8" diameter piston rod, 1/4" female NPT ports, double acting, tapped end caps and one side for mount, flange, pivot and clevis mount options available. Some models available with cushions on both ends.

2-1/2 in bore, double acting, tapped end caps						
Part Number no Cushions	Price	Part Number w/ Cushions*	Price	Stroke Length (in)	"A" (in [mm])	Weight (lb)
D40010DT-M	$127.00	D40010DT-MC	$207.00	1	4.75 [120.6]	3.4
D40020DT-M	$131.00	D40020DT-MC	$211.00	2	5.75 [146.0]	3.7
D40030DT-M	$134.00	D40030DT-MC	$215.00	3	6.75 [171.4]	3.9
D40040DT-M	$139.00	D40040DT-MC	$219.00	4	7.75 [196.8]	4.2
D40050DT-M	$142.00	D40050DT-MC	$224.00	5	8.75 [222.2]	4.4
D40060DT-M	$146.00	D40060DT-MC	$228.00	6	9.75 [247.6]	4.7
D40070DT-M	$149.00	–		7	10.75 [273.0]	5.0
D40080DT-M	$153.00	D40080DT-MC	$232.00	8	11.75 [298.4]	5.2
D40090DT-M	$156.00	–		9	12.75 [323.8]	5.5
D40100DT-M	$161.00	D40100DT-MC	$236.00	10	13.75 [349.2]	5.8
D40110DT-M	$164.00	–		11	14.75 [374.6]	6.0
D40120DT-M	$168.00	D40120DT-MC	$241.00	12	15.75 [400.0]	6.3
D40140DT-M	$174.00	–		14	17.75 [450.8]	6.8
D40160DT-M	$183.00	D40160DT-MC	$249.00	16	19.75 [501.6]	7.3
D40180DT-M	$190.00	–		18	21.75 [552.4]	7.8
D40200DT-M	$197.00	D40200DT-MC	$258.00	20	23.75 [603.2]	8.4
D40220DT-M	$205.00	–		22	25.75 [654.0]	8.9
D40240DT-M	$212.00	D40240DT-MC	$270.00	24	27.75 [704.8]	9.1

** The cushions decelerate the piston rod over the last 11/16 inch (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.*

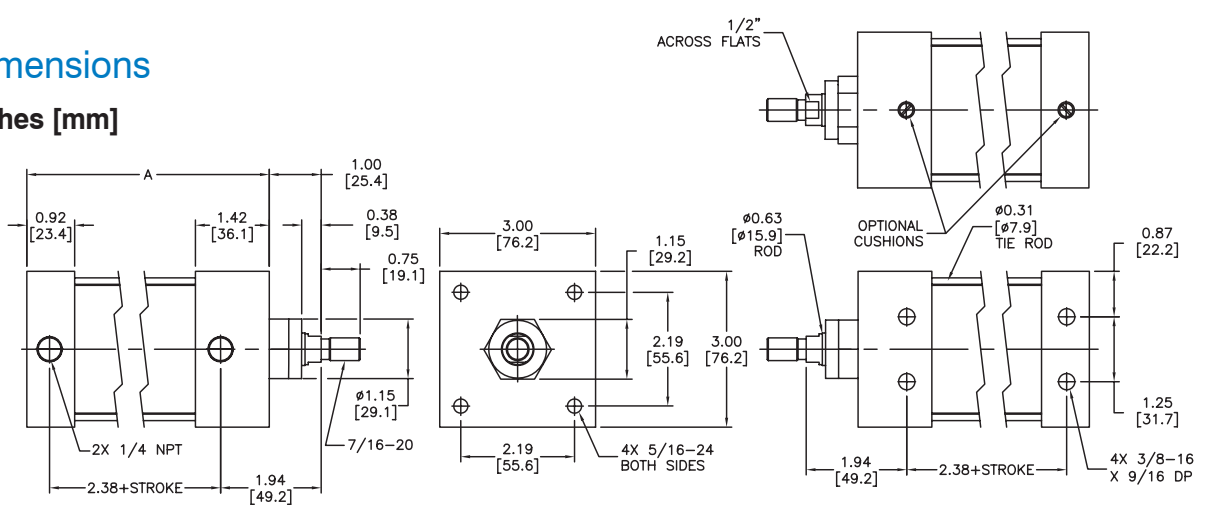
Specifications	
Aluminum hard anodized to 60 Rc cylinder body	4.91 sq. in. piston area
Solid aluminum bar, black anodized end caps	Pressure rating 250 psi, AIR ONLY
High tensile ground and polished hard chrome plated steel piston rod	Non-detergent petroleum based oil is recommended
Low friction Buna-N seals	Temperature range -40°F to 250°F (-40 to 121°C)
Extend force at 100 psi = 491 lb.	Retract force at 100 psi = 460 lb.
Filtration: Not essential, however a standard 40 micron filter placed upstream will prolong seal life.	

Mounting Accessories		
Style	NFPA Designation	Part No.
Front Flange	MF1	DFM-3
Rear Flange	MF2	DFM-3
Rear Clevis	MP2	DPC-3
Rear Pivot	MP4	DPA-3

Rod Accessories	
Style	Part No.
Rod Clevis	DRC-2
Rod Pivot	DRE-1

Dimensions

inches [mm]



D-Series Heavy Duty Pneumatic Cylinders – 3-1/4 inch Bore

3-1/4 in. Bore, Double-acting, Tapped End Caps, Magnetic Piston



Part no. D52060DT-M

NITRA heavy duty pneumatic, NFPA interchangeable cylinder, 3-1/4 inch bore, 1 inch diameter piston rod, 1/2" female NPT ports, double acting, tapped end caps and one side for mount, flange, pivot and clevis mount options available. Some models available with cushions on both ends.

3-1/4 in bore, double acting, tapped end caps						
Part Number no Cushions	Price	Part Number w/ Cushions*	Price	Stroke Length (in)	"A" (in [mm])	Weight (lbs)
D52010DT-M	$176.00	D52010DT-MC	$273.00	1	5.25 [133.3]	6.8
D52020DT-M	$182.00	D52020DT-MC	$278.00	2	6.25 [158.7]	7.3
D52030DT-M	$187.00	D52030DT-MC	$283.00	3	7.25 [184.1]	7.7
D52040DT-M	$191.00	D52040DT-MC	$288.00	4	8.25 [209.5]	8.1
D52050DT-M	$196.00	D52050DT-MC	$295.00	5	9.25 [234.9]	8.6
D52060DT-M	$202.00	D52060DT-MC	$301.00	6	10.25 [260.3]	9.0
D52070DT-M	$207.00	–		7	11.25 [285.7]	9.4
D52080DT-M	$211.00	D52080DT-MC	$307.00	8	12.25 [311.1]	9.9
D52090DT-M	$216.00	–		9	13.25 [336.5]	10.3
D52100DT-M	$222.00	D52100DT-MC	$313.00	10	14.25 [361.9]	10.7
D52110DT-M	$227.00	–		11	15.25 [387.3]	11.2
D52120DT-M	$232.00	D52120DT-MC	$319.00	12	16.25 [412.7]	11.6
D52140DT-M	$241.00	–		14	18.25 [463.5]	12.5
D52160DT-M	$251.00	D52160DT-MC	$330.00	16	20.25 [514.3]	13.4
D52180DT-M	$261.00	–		18	22.25 [565.1]	14.2
D52200DT-M	$272.00	D52200DT-MC	$345.00	20	24.25 [615.9]	15.1
D52220DT-M	$281.00	–		22	26.25 [666.7]	16.0
D52240DT-M	$291.00	D52240DT-MC	$366.00	24	28.25 [717.5]	16.8

** The cushions decelerate the piston rod over the last 11/16 inch (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.*

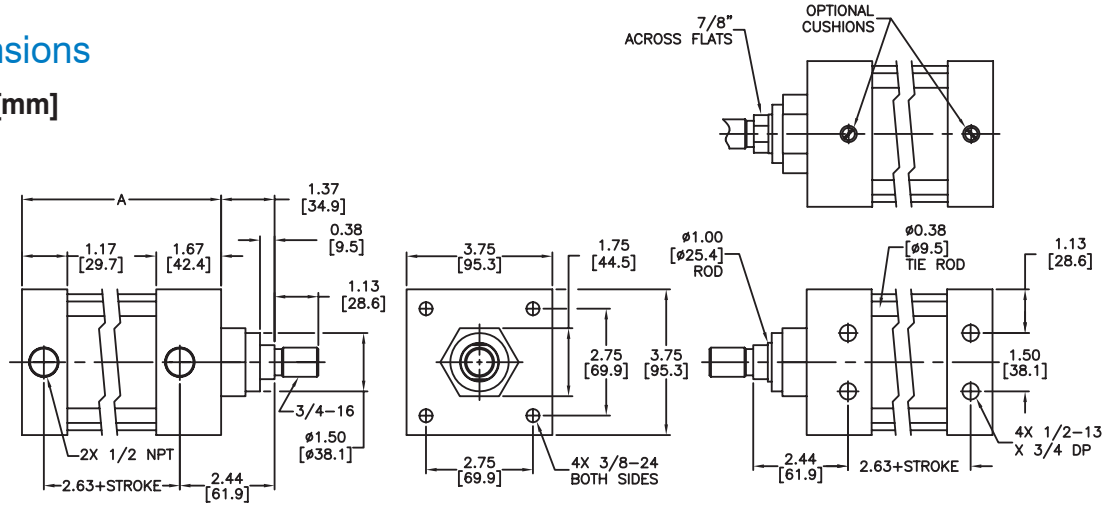
Specifications	
Aluminum hard anodized to 60 Rc cylinder body	8.3 sq. in. piston area
Solid aluminum bar, black anodized end caps	Pressure rating 250 psi, AIR ONLY
High tensile ground and polished hard chrome plated steel piston rod	Non-detergent petroleum based oil is recommended
Low friction Buna-N seals	Temperature range -40°F to 250°F (-40 to 121°C)
Extend force at 100 psi = 830 lb.	Retract force at 100 psi = 751 lb.
Filtration: Not essential, however a standard 40 micron filter placed upstream will prolong seal life.	

Mounting Accessories		
Style	NFPA Designation	Part No.
Front Flange	MF1	DFM-4
Rear Flange	MF2	DFM-4
Rear Clevis	MP2	DPC-4
Rear Pivot	MP4	DPA-4

Rod Accessories	
Style	Part No.
Rod Clevis	DRC-4
Rod Pivot	DRE-2

Dimensions

inches [mm]



D-Series Heavy Duty Pneumatic Cylinders – 4 inch Bore

4 in. Bore, Double-acting, Tapped End Caps, Magnetic Piston



Part no. D64060DT-M

NITRA heavy duty pneumatic, NFPA interchangeable cylinder, 4 inch bore, 1 inch diameter piston rod, 1/2" female NPT ports, double acting, tapped end caps and one side for mount, flange, pivot and clevis mount options available. Some models available with cushions on both ends.

4 in bore, double acting, tapped end caps						
Part Number no Cushions	Price	Part Number w/ Cushions*	Price	Stroke Length (in)	"A" (in [mm])	Weight (lb)
D64010DT-M	$206.00	D64010DT-MC	$311.00	1	5.25 [133.3]	8.7
D64020DT-M	$211.00	D64020DT-MC	$317.00	2	6.25 [158.7]	9.2
D64030DT-M	$216.00	D64030DT-MC	$323.00	3	7.25 [184.1]	9.7
D64040DT-M	$223.00	D64040DT-MC	$330.00	4	8.25 [209.5]	10.2
D64050DT-M	$228.00	D64050DT-MC	$336.00	5	9.25 [234.9]	10.7
D64060DT-M	$233.00	D64060DT-MC	$342.00	6	10.25 [260.3]	11.1
D64070DT-M	$238.00	–		7	11.25 [285.7]	11.6
D64080DT-M	$245.00	D64080DT-MC	$350.00	8	12.25 [311.1]	12.1
D64090DT-M	$250.00	–		9	13.25 [336.5]	12.6
D64100DT-M	$255.00	D64100DT-MC	$358.00	10	14.25 [361.9]	13.1
D64110DT-M	$260.00	–		11	15.25 [387.3]	13.5
D64120DT-M	$267.00	D64120DT-MC	$367.00	12	16.25 [412.7]	14.0
D64140DT-M	$277.00	–		14	18.25 [463.5]	15.0
D64160DT-M	$289.00	D64160DT-MC	$379.00	16	20.25 [514.3]	15.9
D64180DT-M	$299.00	–		18	22.25 [565.1]	16.9
D64200DT-M	$311.00	D64200DT-MC	$393.00	20	24.25 [615.9]	17.9
D64220DT-M	$321.00	–		22	26.25 [666.7]	18.8
D64240DT-M	$333.00	D64240DT-MC	$416.00	24	28.25 [717.5]	19.8

** The cushions decelerate the piston rod over the last 11/16 inch (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.*

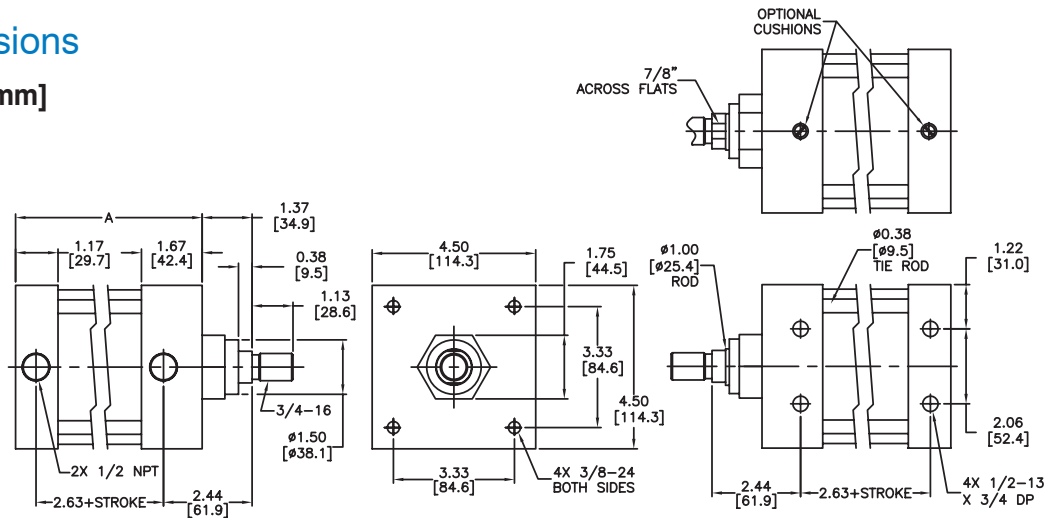
Specifications	
Aluminum hard anodized to 60 Rc cylinder body	12.57 sq. in. piston area
Solid aluminum bar, black anodized end caps	Pressure rating 250 psi, AIR ONLY
High tensile ground and polished hard chrome plated steel piston rod	Non-detergent petroleum based oil is recommended
Low friction Buna-N seals	Temperature range -40°F to 250°F (-40 to 121°C)
Extend force at 100 psi = 1,257 lb.	Retract force at 100 psi = 1,178 lb.
Filtration: Not essential, however a standard 40 micron filter placed upstream will prolong seal life.	

Mounting Accessories		
Style	NFPA Designation	Part No.
Front Flange	MF1	DFM-5
Rear Flange	MF2	DFM-5
Rear Clevis	MP2	DPC-5
Rear Pivot	MP4	DPA-5

Rod Accessories	
Style	Part No.
Rod Clevis	DRC-4
Rod Pivot	DRE-2

Dimensions

inches [mm]



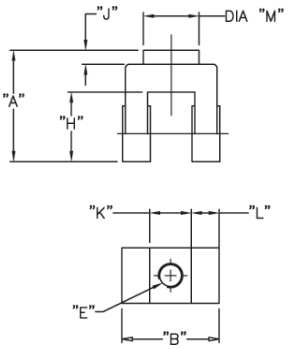
D-Series Heavy Duty Pneumatic Cylinders – Accessories

D-Series Heavy Duty Pneumatic Cylinder Accessories				
Part Number	**Description**	**Pcs/Pkg**	**Wt (lb)**	**Price**
DRC-2	Cylinder rod clevis, 7/16-20 thread, for 1-1/2, 2 and 2-1/2 inch bore NITRA NFPA D-series pneumatic cylinders	1	0.6	$26.00
DRC-4	Cylinder rod clevis, 3/4-16 thread, for 3-1/4 and 4 inch bore NITRA NFPA D-series pneumatic cylinders	1	1.6	$42.00
DRE-1	Cylinder rod eye, 7/16-20 thread, for 1-1/2, 2 and 2-1/2 inch bore NITRA NFPA D-series pneumatic cylinders	1	0.4	$22.00
DRE-2	Cylinder rod eye, 3/4-16 thread, for 3-1/4 and 4 inch bore NITRA NFPA D-series pneumatic cylinders	1	1.2	$28.00
DPC-1	NFPA style MP2 cylinder rear clevis bracket and attaching hardware, for 1-1/2 inch bore NITRA NFPA D-series pneumatic cylinders	1	0.5	$21.00
DPC-2	NFPA style MP2 cylinder rear clevis bracket and attaching hardware, for 2 inch bore NITRA NFPA D-series pneumatic cylinders	1	0.7	$25.00
DPC-3	NFPA style MP2 cylinder rear clevis bracket and attaching hardware, for 2-1/2 inch bore NITRA NFPA D-series pneumatic cylinders	1	0.8	$30.50
DPC-4	NFPA style MP2 cylinder rear clevis bracket and attaching hardware, for 3-1/4 inch bore NITRA NFPA D-series pneumatic cylinders	1	1.6	$41.50
DPC-5	NFPA style MP2 cylinder rear clevis bracket and attaching hardware, for 4 inch bore NITRA NFPA D-series pneumatic cylinders	1	1.7	$48.00
DPA-1	NFPA style MP4 cylinder rear pivot eye and attaching hardware, for 1-1/2 inch bore NITRA NFPA D-series pneumatic cylinders	1	0.4	$20.50
DPA-2	NFPA style MP4 cylinder rear pivot eye and attaching hardware, for 2 inch bore NITRA NFPA D-series pneumatic cylinders	1	0.5	$23.00
DPA-3	NFPA style MP4 cylinder rear pivot eye and attaching hardware, for 2-1/2 inch bore NITRA NFPA D-series pneumatic cylinders	1	0.7	$28.00
DPA-4	NFPA style MP4 cylinder rear pivot eye and attaching hardware, for 3-1/4 inch bore NITRA NFPA D-series pneumatic cylinders	1	1.3	$41.50
DPA-5	NFPA style MP4 cylinder rear pivot eye and attaching hardware, for 4 inch bore NITRA NFPA D-series pneumatic cylinders	1	1.4	$46.00
DFM-1	NFPA style MF1 or MF2 cylinder flange mounting plate and attaching hardware, for 1-1/2 inch bore NITRA NFPA D-series pneumatic cylinders	1	0.3	$20.00
DFM-2	NFPA style MF1 or MF2 cylinder flange mounting plate and attaching hardware, for 2 inch bore NITRA NFPA D-series pneumatic cylinders	1	0.4	$20.00
DFM-3	NFPA style MF1 or MF2 cylinder flange mounting plate and attaching hardware, for 2-1/2 inch bore NITRA NFPA D-series pneumatic cylinders	1	0.5	$27.50
DFM-4	NFPA style MF1 or MF2 cylinder flange mounting plate and attaching hardware, for 3-1/4 inch bore NITRA NFPA D-series pneumatic cylinders	1	3.0	$40.50
DFM-5	NFPA style MF1 or MF2 cylinder flange mounting plate and attaching hardware, for 4 inch bore NITRA NFPA D-series pneumatic cylinders	1	4.3	$45.00

Rod Clevis Dimensions

inches [mm]





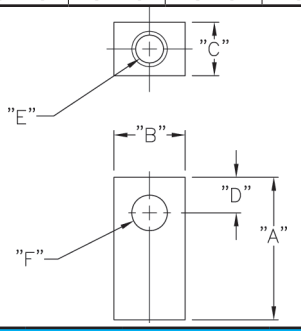
Note: Comes with Pivot Pin installed.

Rod Clevis Dimension Table												
Part #	**A**	**B**	**C**	**D**	**E**	**(Dia) F**	**(Dia) G**	**H**	**J**	**K**	**L**	**M**
DRC-2	2.00 [50.8]	1.75 [44.5]	1.00 [25.4]	1.50 [38.1]	7/16-20	ø0.50 [ø12.7]	ø1.00 [ø25.4]	1.25 [31.8]	0.25 [6.4]	0.75 [19.1]	0.50 [12.7]	ø1.00 [ø25.4]
DRC-4	3.13 [79.5]	2.50 [63.5]	1.50 [38.1]	2.38 [60.5]	3/4-16	ø0.75 [ø19.1]	ø1.50 [ø38.1]	2.00 [50.8]	0.31 [7.8]	1.25 [31.8]	0.63 [16.0]	ø1.50 [ø38.1]

Rod Eye Dimensions

inches [mm]





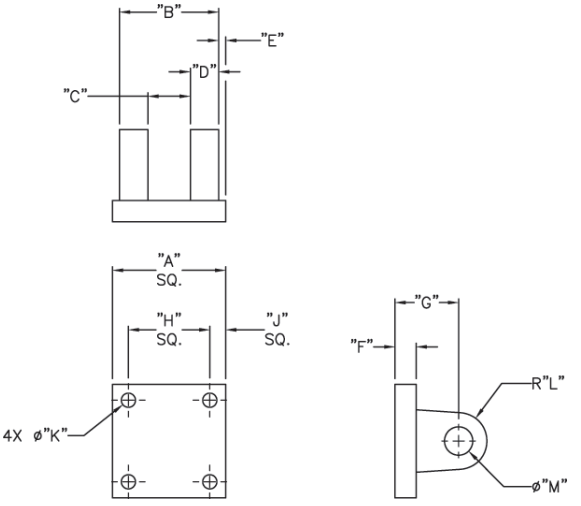
Rod Eye Dimension Table						
Part #	**A**	**B**	**C**	**D**	**E**	**(Dia) F**
DRE-1	2.00 [50.8]	1.00 [25.4]	0.75 [19.1]	0.50 [12.7]	7/16-20 x 3/4	ø0.50 [ø12.7]
DRE-2	2.81 [71.4]	1.50 [38.1]	1.25 [31.8]	0.75 [19.1]	3/4-16 x 1-1/18	ø0.75 [ø19.1]

D-Series Heavy Duty Pneumatic Cylinders – Accessories

Rear Clevis Dimensions

inches [mm]



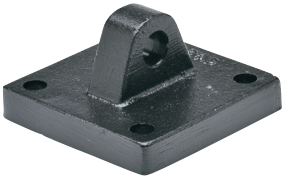


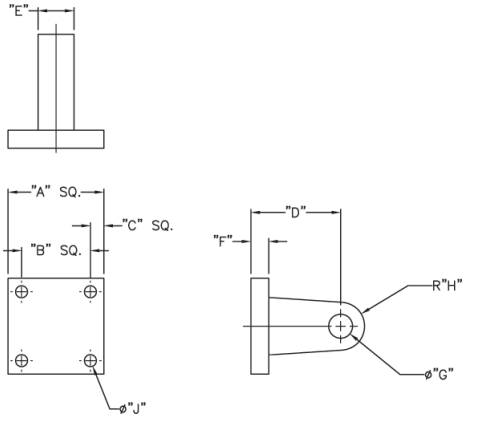
Note: Comes with pivot pin installed.

Rear Clevis Dimension Table												
Part #	*A*	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*J*	*(Dia) K*	*(R) L*	*(Dia) M*
DPC-1	2.00 [50.8]	1.75 [44.5]	0.75 [19.1]	0.50 [12.7]	0.13 [3.3]	0.38 [9.7]	1.13 [28.7]	1.44 [36.6]	0.28 [7.1]	ø0.27 [ø6.9]	R 0.50 [R 12.7]	ø0.50 [ø12.7]
DPC-2	2.50 [63.5]	1.75 [44.5]	0.75 [19.1]	0.50 [12.7]	0.38 [9.7]	0.38 [9.7]	1.13 [28.7]	1.84 [46.7]	0.33 [8.4]	ø0.36 [ø9.1]	R 0.50 [R 12.7]	ø0.50 [ø12.7]
DPC-3	3.00 [76.2]	1.75 [44.5]	0.75 [19.1]	0.50 [12.7]	0.63 [16.0]	0.38 [9.7]	1.13 [28.7]	2.19 [55.6]	0.41 [10.4]	ø0.36 [ø9.1]	R 0.50 [R 12.7]	ø0.50 [ø12.7]
DPC-4	3.75 [95.3]	2.63 [66.8]	1.25 [31.8]	0.63 [16.0]	0.63 [16.0]	0.63 [16.0]	1.88 [47.8]	2.75 [69.9]	0.50 [12.7]	ø0.44 [ø11.2]	R 0.75 [R 19.1]	ø0.75 [ø19.1]
DPC-5	4.50 [114.3]	2.63 [66.8]	1.25 [31.8]	0.63 [16.0]	1.00 [25.4]	0.63 [16.0]	1.88 [47.8]	3.33 [84.6]	0.59 [15.0]	ø0.44 [ø11.2]	R 0.75 [R 19.1]	ø0.75 [ø19.1]

Rear Pivot Eye Dimensions

inches [mm]





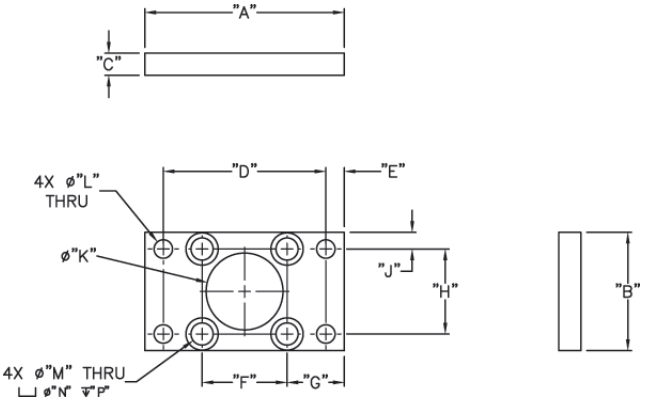
Rear Pivot Eye Dimension Table									
Part #	*A*	*B*	*C*	*D*	*E*	*F*	*(Dia) G*	*(R) H*	*(Dia) J*
DPA-1	2.00 [50.8]	1.44 [36.6]	0.28 [7.1]	1.13 [28.7]	0.75 [19.1]	0.38 [9.70]	ø0.50 [ø12.7]	R 0.50 [R 12.7]	ø0.27 [ø6.9]
DPA-2	2.50 [63.5]	1.84 [46.7]	0.33 [8.4]	1.13 [28.7]	0.75 [19.1]	0.38 [9.70]	ø0.50 [ø12.7]	R 0.50 [R 12.7]	ø0.36 [ø9.1]
DPA-3	3.00 [76.2]	2.19 [55.6]	0.41 [10.4]	1.13 [28.7]	0.75 [19.1]	0.38 [9.70]	ø0.50 [ø12.7]	R 0.50 [R 12.7]	ø0.36 [ø9.1]
DPA-4	3.75 [95.3]	2.75 [69.9]	0.50 [12.7]	1.88 [47.8]	1.25 [31.8]	0.63 [16.0]	ø0.75 [ø19.1]	R 0.75 [R 19.1]	ø0.44 [ø11.2]
DPA-5	4.50 [114.3]	3.33 [84.6]	0.59 [15.0]	1.88 [47.8]	1.25 [31.8]	0.63 [16.0]	ø0.75 [ø19.1]	R 0.75 [R 19.1]	ø0.44 [ø11.2]

D-Series Heavy Duty Pneumatic Cylinders – Accessories

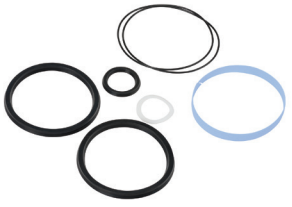
Flange Attachment Dimensions

inches [mm]



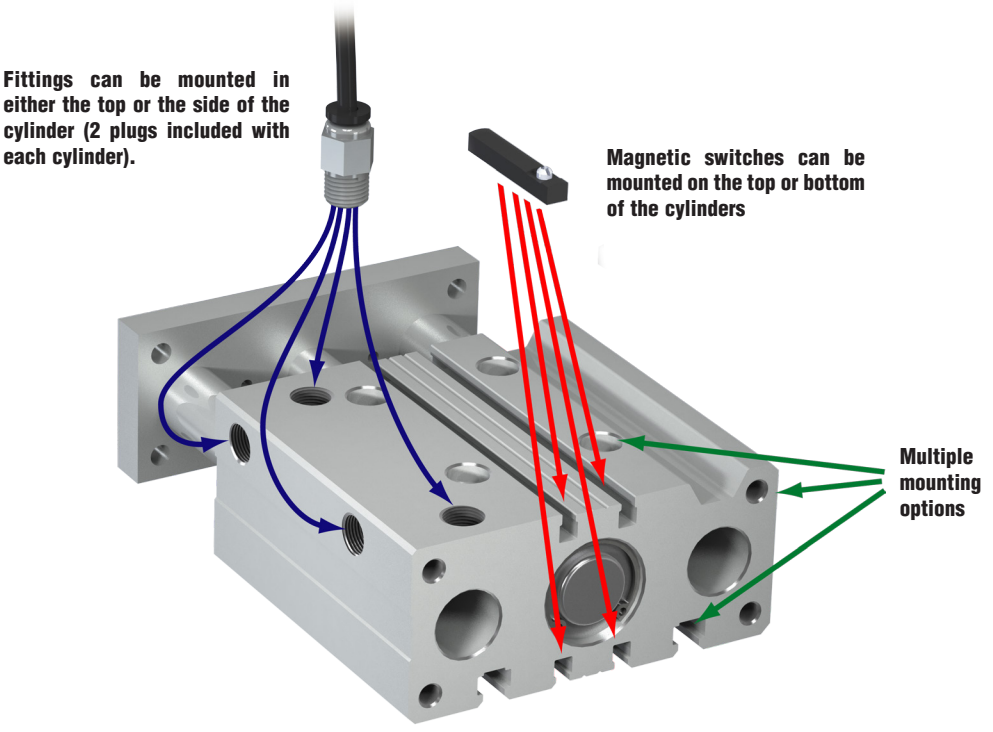


Flange Attachment Dimension Table														
Part #	*A*	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*J*	*(Dia) K*	*(Dia) L*	*(Dia) M*	*(Dia) N*	*P*
DFM-1	3.38 [85.9]	2.00 [50.8]	0.38 [9.7]	2.75 [69.9]	0.31 [7.9]	1.44 [36.6]	0.97 [24.6]	1.44 [36.6]	0.28 [7.1]	ø1.30 [ø33.0]	ø0.31 [ø7.9]	ø0.38 [ø9.7]	ø0.66 [ø16.8]	0.16 [4.1]
DFM-2	4.13 [104.9]	2.50 [63.5]	0.38 [9.7]	3.38 [85.9]	0.38 [9.7]	1.84 [46.7]	1.14 [29.0]	1.84 [46.7]	0.33 [8.4]	ø1.30 [ø33.0]	ø0.38 [ø9.7]	ø0.38 [ø9.7]	ø0.66 [ø16.8]	0.16 [4.1]
DFM-3	4.63 [117.6]	3.00 [76.2]	0.38 [9.7]	3.88 [98.6]	0.38 [9.7]	2.19 [55.6]	1.22 [31.0]	2.19 [55.6]	0.41 [10.4]	ø1.74 [ø44.2]	ø0.38 [ø9.7]	ø0.38 [ø9.7]	ø0.66 [ø16.8]	0.16 [4.1]
DFM-4	5.50 [139.7]	3.75 [95.3]	0.63 [16.0]	4.69 [119.1]	0.41 [10.4]	2.75 [69.9]	1.38 [35.1]	2.75 [69.9]	0.50 [12.7]	ø2.06 [ø52.3]	ø0.44 [ø11.2]	ø0.42 [ø10.7]	ø0.82 [ø20.8]	ø0.36 [ø9.1]
DFM-5	6.25 [158.8]	4.50 [114.3]	0.63 [16.0]	5.44 [138.2]	0.41 [10.4]	3.33 [84.6]	1.46 [37.1]	3.33 [84.6]	0.59 [15.0]	ø2.06 [ø52.3]	ø0.44 [ø11.2]	ø0.42 [ø10.7]	ø0.82 [ø20.8]	ø0.36 [ø9.1]



D-Series Heavy Duty Pneumatic Cylinder Replacement Seal Kit				
Part Number	*Description*	*Pcs/Pkg*	*Wt (lb)*	*Price*
DSK-24	Seal kit, replacement, for NITRA D24 series pneumatic cylinders. Incudes 4 Buna-N seals and PTFE rod wiper and wear strip.	1	0.1	$15.50
DSK-32	Seal kit, replacement, for NITRA D32 series pneumatic cylinders. Incudes 4 Buna-N seals and PTFE rod wiper and wear strip.	1	0.1	$16.50
DSK-40	Seal kit, replacement, for NITRA D40 series pneumatic cylinders. Incudes 4 Buna-N seals and PTFE rod wiper and wear strip.	1	0.1	$18.50
DSK-52	Seal kit, replacement, for NITRA D52 series pneumatic cylinders. Incudes 4 Buna-N seals and PTFE rod wiper and wear strip.	1	0.2	$19.50
DSK-64	Seal kit, replacement, for NITRA D64 series pneumatic cylinders. Incudes 4 Buna-N seals and PTFE rod wiper and wear strip.	1	0.2	$21.50

E-Series Dual Guide Rod Cylinders



NITRA pneumatic guided actuator with dual guide rods, bronze bushings, extruded aluminum housing and switch mounting tracks.

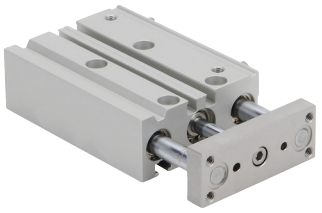
- Eight bore sizes
- Interchangeable with other popular brands
- Work with 4mm square T-slot cylinder switches
- Chrome plated stainless steel guide rods
- Mild steel tooling plate
- Nitrile / Buna-N O-rings

2 YEAR WARRANTY

E-Series Dual Guide Rod Cylinder Specifications								
Bore Size (mm)	12	16	20	25	32	40	50	63
Action	Double acting							
Fluid	Air (clean/dry)							
Temperature Range	23 to 158°F (-5 to 70°C)							
Pressure Range	18-142 psi (1.2-10 bar)							
Proof Pressure	213 psi (15 bar)							
Lubrication	Not required							
Cushion Type	Urethane Bumper							
Non-Rotate Tolerance	±0.10°		±0.09°		±0.08°		±0.06°	
Port Size	M5x0.8		1/8-NPT				1/4-NPT	
Extend Force @ 100 psi (lbs.)	17.5	31.2	48.7	76.1	124.7	194.8	304.3	483.2
Retract Force @ 100 psi (lbs.)	9.7	19.0	31.2	44.9	76.0	146.1	255.6	434.5

E-Series Dual Guide Rod Cylinders

12 mm Bore, Double Acting



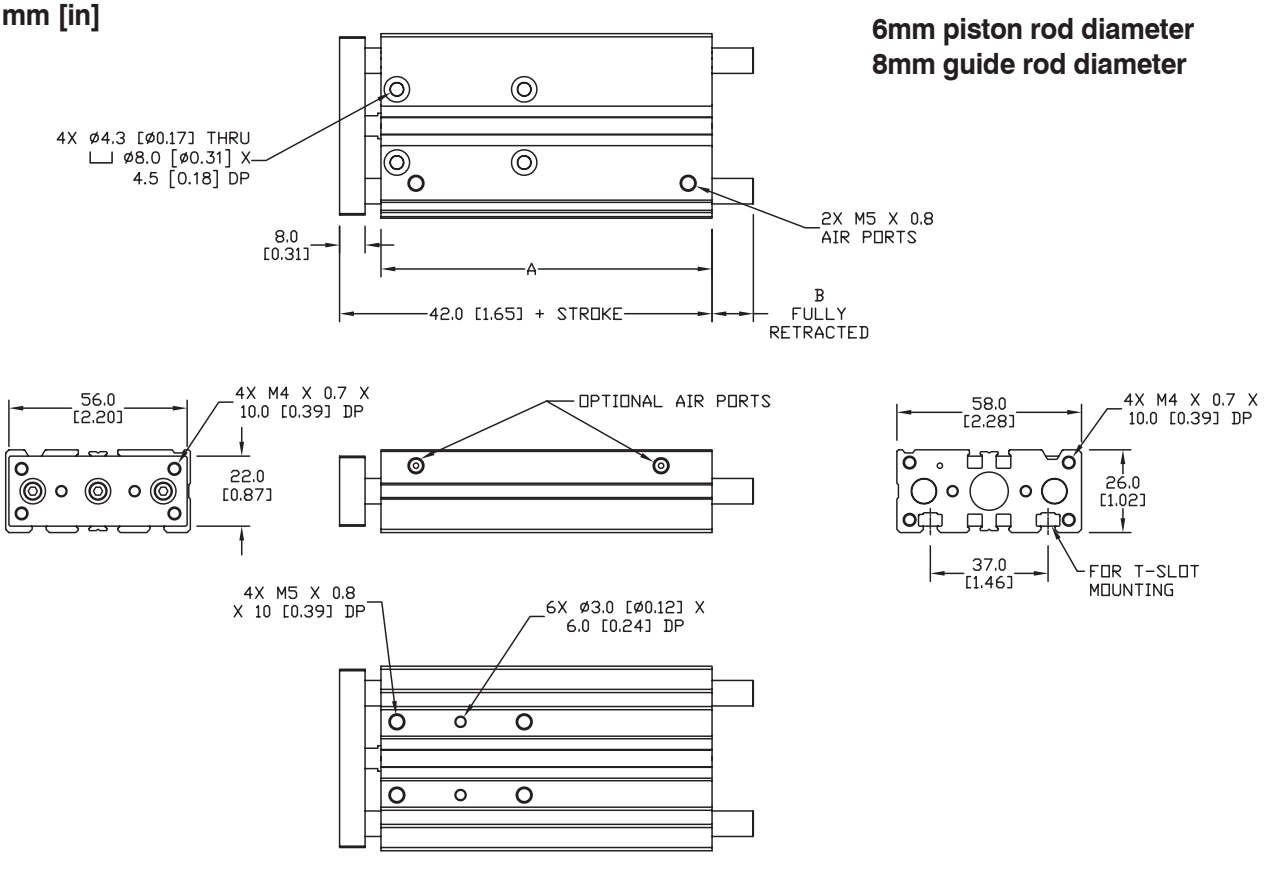
Part No. E12M050MD-M

12 mm Bore E-Series Dual Guide Rod Cylinders - Double Acting					
Part Number	*Stroke Length (mm)*	*"A" (mm [in])*	*"B" (mm [in])*	*Weight (lbs)*	*Price*
E12M010MD-M	10	39.0 [1.53]	-4.0 [-0.16]	0.6	$94.00
E12M020MD-M	20	49.0 [1.93]	-4.0 [-0.16]	0.6	$94.00
E12M025MD-M	25	54.0 [2.13]	-4.0 [-0.16]	0.7	$94.00
E12M030MD-M	30	59.0 [2.32]	-4.0 [-0.16]	0.7	$101.00
E12M040MD-M	40	69.0 [2.72]	-4.0 [-0.16]	0.8	$101.00
E12M050MD-M	50	79.0 [3.11]	-4.0 [-0.16]	0.9	$101.00
E12M075MD-M	75	104.0 [4.09]	13.0 [0.51]	1.2	$104.00
E12M100MD-M	100	129.0 [5.08]	13.0 [0.51]	1.4	$109.50
E12M125MD-M	125	154.0 [6.06]	43.0 [1.69]	1.7	$115.00
E12M150MD-M	150	179.0 [7.05]	43.0 [1.69]	1.9	$121.00

Dimensions

mm [in]

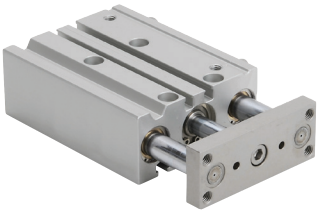
6mm piston rod diameter
8mm guide rod diameter



E12MXXXMD-M

E-Series Dual Guide Rod Cylinders

16 mm Bore, Double Acting



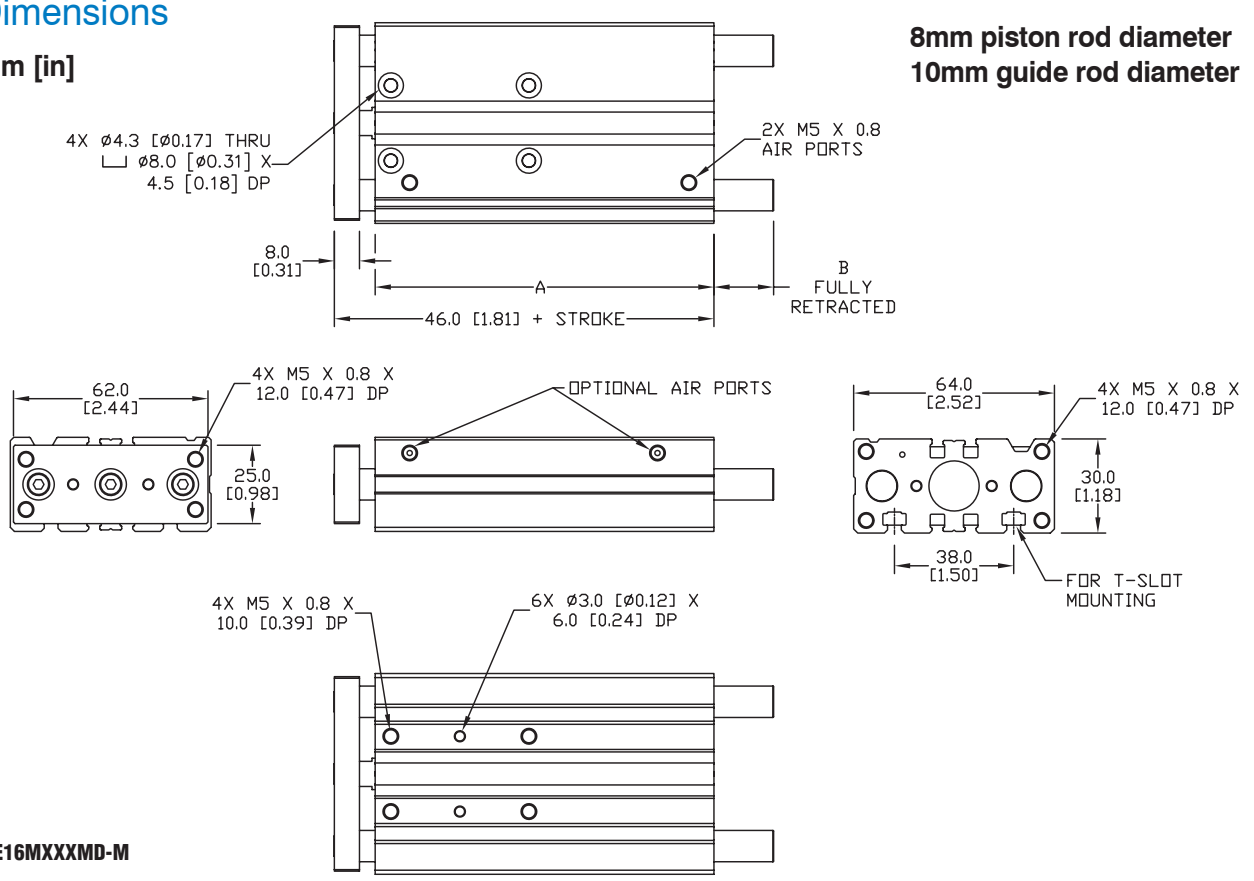
Part No. E16M050MD-M

16 mm Bore E-Series Dual Guide Rod Cylinders - Double Acting					
Part Number	*Stroke Length (mm)*	*"A" (mm [in])*	*"B" (mm [in])*	*Weight (lbs)*	*Price*
E16M010MD-M	10	43.0 [1.69]	-3.0 [-0.12]	0.8	$106.00
E16M020MD-M	20	53.0 [2.09]	-3.0 [-0.12]	0.9	$106.00
E16M025MD-M	25	58.0 [2.28]	-3.0 [-0.12]	1.0	$113.50
E16M030MD-M	30	63.0 [2.48]	-3.0 [-0.12]	1.0	$113.50
E16M040MD-M	40	73.0 [2.87]	-3.0 [-0.12]	1.2	$113.50
E16M050MD-M	50	83.0 [3.27]	-3.0 [-0.12]	1.3	$113.50
E16M075MD-M	75	108.0 [4.25]	19.0 [0.75]	1.7	$120.50
E16M100MD-M	100	133.0 [5.27]	19.0 [0.75]	2.0	$132.50
E16M125MD-M	125	158.0 [6.22]	49.0 [1.93]	2.3	$142.00
E16M150MD-M	150	183.0 [7.20]	49.0 [1.93]	2.6	$147.00
E16M175MD-M	175	208.0 [8.19]	49.0 [1.93]	2.9	$154.00
E16M200MD-M	200	233.0 [9.17]	49.0 [1.93]	3.2	$156.00

Dimensions

mm [in]

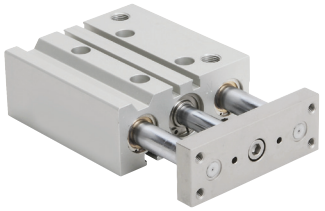
8mm piston rod diameter
10mm guide rod diameter



E16MXXXMD-M

E-Series Dual Guide Rod Cylinders

20 mm Bore, Double Acting



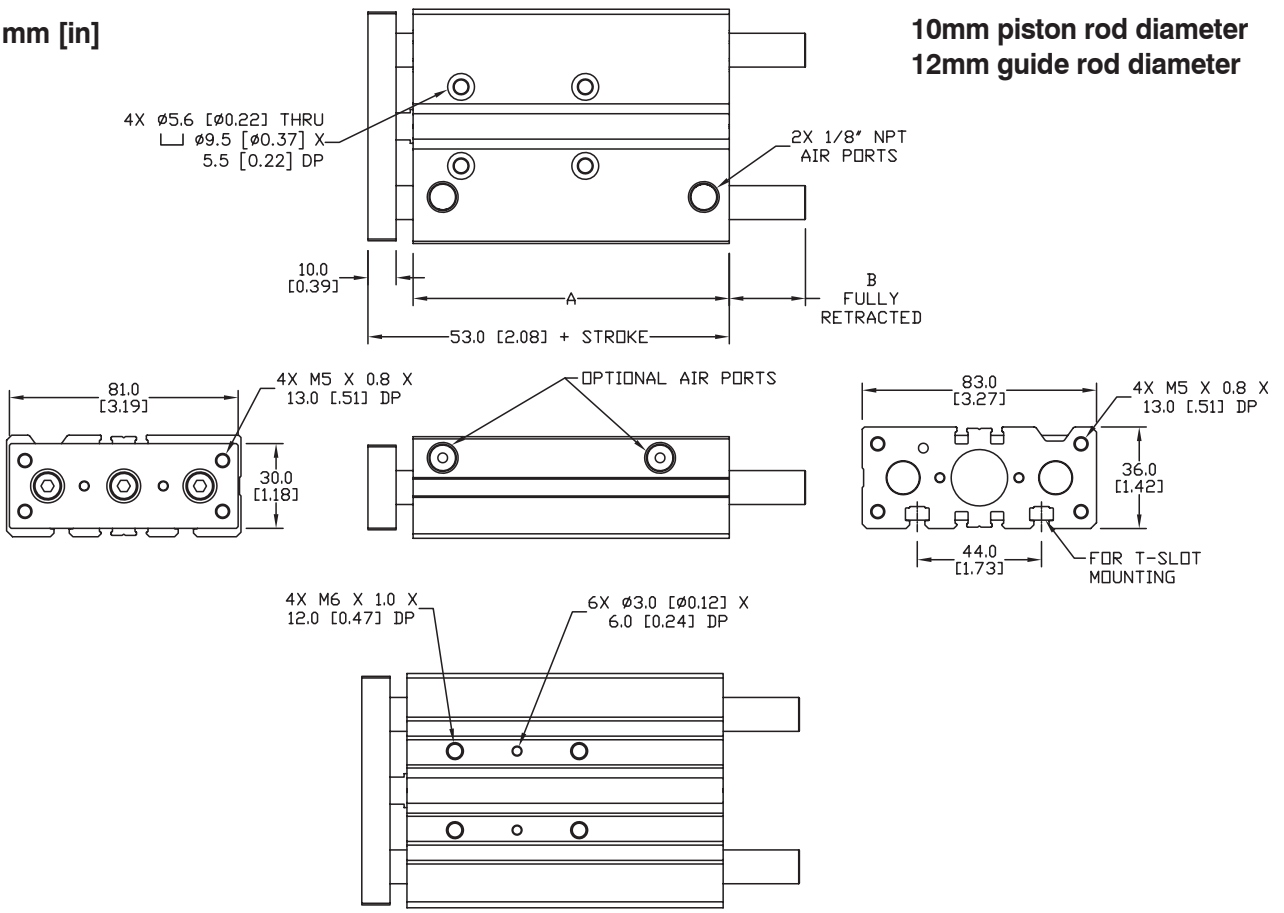
Part No. E20M050MD-M

20 mm Bore E-Series Dual Guide Rod Cylinders - Double Acting					
Part Number	*Stroke Length (mm)*	*"A" (mm [in])*	*"B" (mm [in])*	*Weight (lbs)*	*Price*
E20M020MD-M	20	57.0 [2.24]	-2.0 [-0.079]	1.6	$128.50
E20M025MD-M	25	62.0 [2.44]	-2.0 [-0.079]	1.7	$136.00
E20M030MD-M	30	67.0 [2.64]	-2.0 [-0.079]	1.8	$136.00
E20M040MD-M	40	77.0 [3.03]	-2.0 [-0.079]	2.0	$136.00
E20M050MD-M	50	87.0 [3.43]	-2.0 [-0.079]	2.1	$136.00
E20M075MD-M	75	112.0 [4.41]	27.0 [1.06]	2.8	$146.50
E20M100MD-M	100	137.0 [5.39]	27.0 [1.06]	3.2	$152.00
E20M125MD-M	125	162.0 [6.38]	51.0 [2.01]	3.8	$161.50
E20M150MD-M	150	187.0 [7.36]	51.0 [2.01]	4.2	$172.00
E20M175MD-M	175	212.0 [8.35]	51.0 [2.01]	4.6	$180.50
E20M200MD-M	200	237.0 [9.33]	51.0 [2.01]	5.1	$191.50
E20M250MD-M	250	287.0 [11.30]	69.0 [2.72]	6.0	$207.00

Dimensions

mm [in]

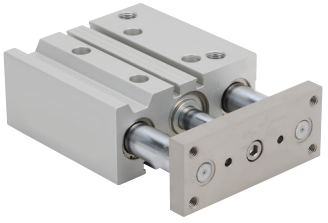
10mm piston rod diameter
12mm guide rod diameter



E20MXXXMD-M

E-Series Dual Guide Rod Cylinders

25 mm Bore, Double Acting



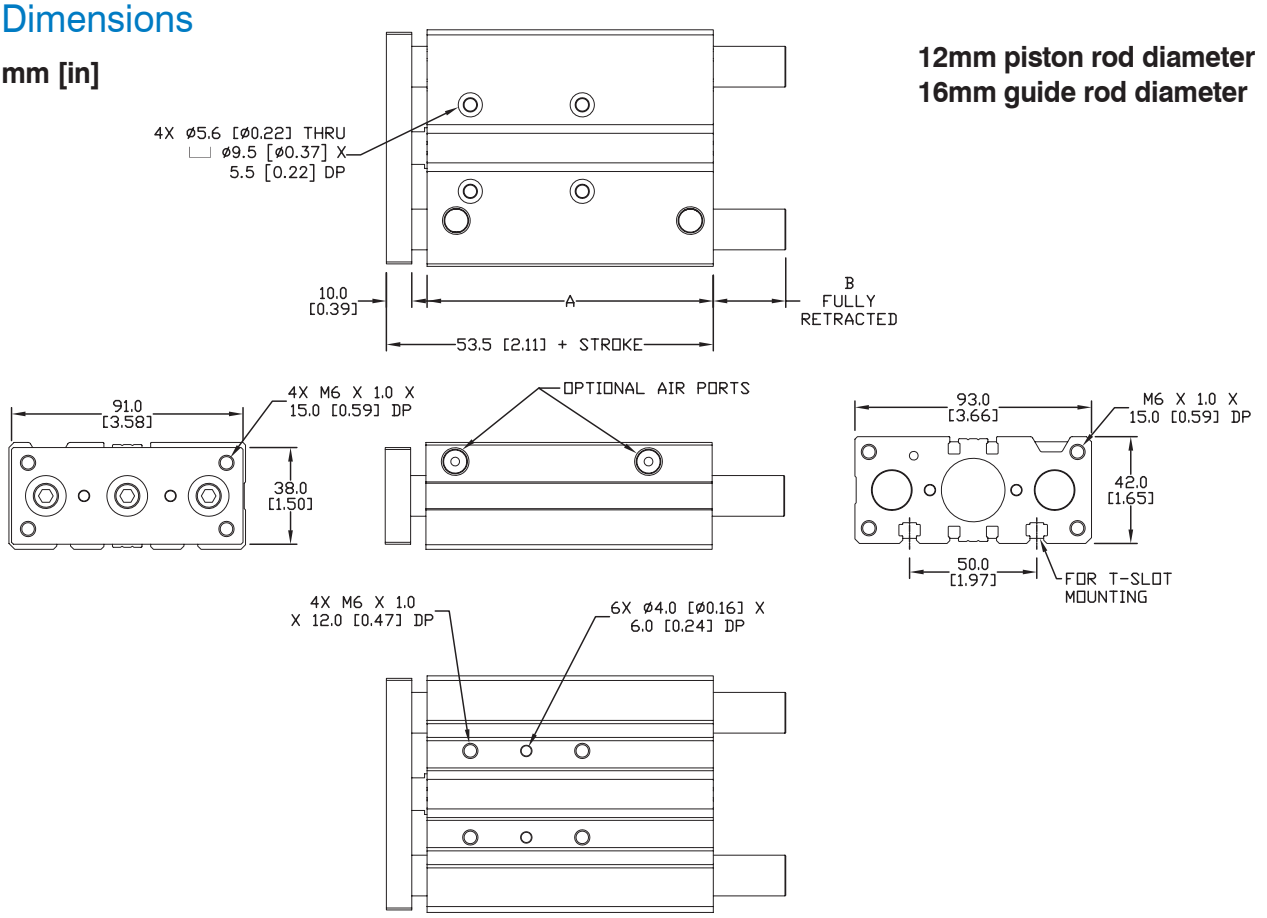
Part No. E25M050MD-M

25 mm Bore E-Series Dual Guide Rod Cylinders - Double Acting					
Part Number	*Stroke Length (mm)*	*"A" (mm [in])*	*"B" (mm [in])*	*Weight (lbs)*	*Price*
E25M020MD-M	20	57.5 [2.26]	-1.5 [-0.06]	2.2	$143.50
E25M025MD-M	25	62.5 [2.40]	-1.5 [-0.06]	2.3	$154.00
E25M030MD-M	30	67.5 [2.66]	-1.5 [-0.06]	2.4	$154.00
E25M040MD-M	40	77.5 [3.05]	-1.5 [-0.06]	2.7	$154.00
E25M050MD-M	50	87.5 [3.44]	-1.5 [-0.06]	2.9	$154.00
E25M075MD-M	75	112.5 [4.43]	28.5 [1.12]	3.9	$166.00
E25M100MD-M	100	137.5 [5.41]	28.5 [1.12]	4.5	$177.00
E25M125MD-M	125	162.5 [6.40]	51.0 [2.01]	5.3	$188.00
E25M150MD-M	150	187.5 [7.38]	51.0 [2.01]	5.8	$199.00
E25M175MD-M	175	212.5 [8.37]	51.0 [2.01]	6.5	$212.00
E25M200MD-M	200	237.5 [9.35]	51.0 [2.01]	7.1	$224.00
E25M250MD-M	250	287.5 [11.32]	68.5 [2.70]	8.4	$241.00

Dimensions

mm [in]

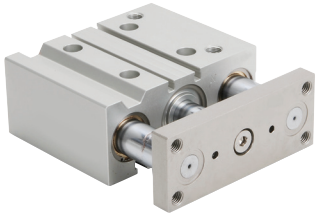
12mm piston rod diameter
16mm guide rod diameter



E25MXXXMD-M

E-Series Dual Guide Rod Cylinders

32 mm Bore, Double Acting



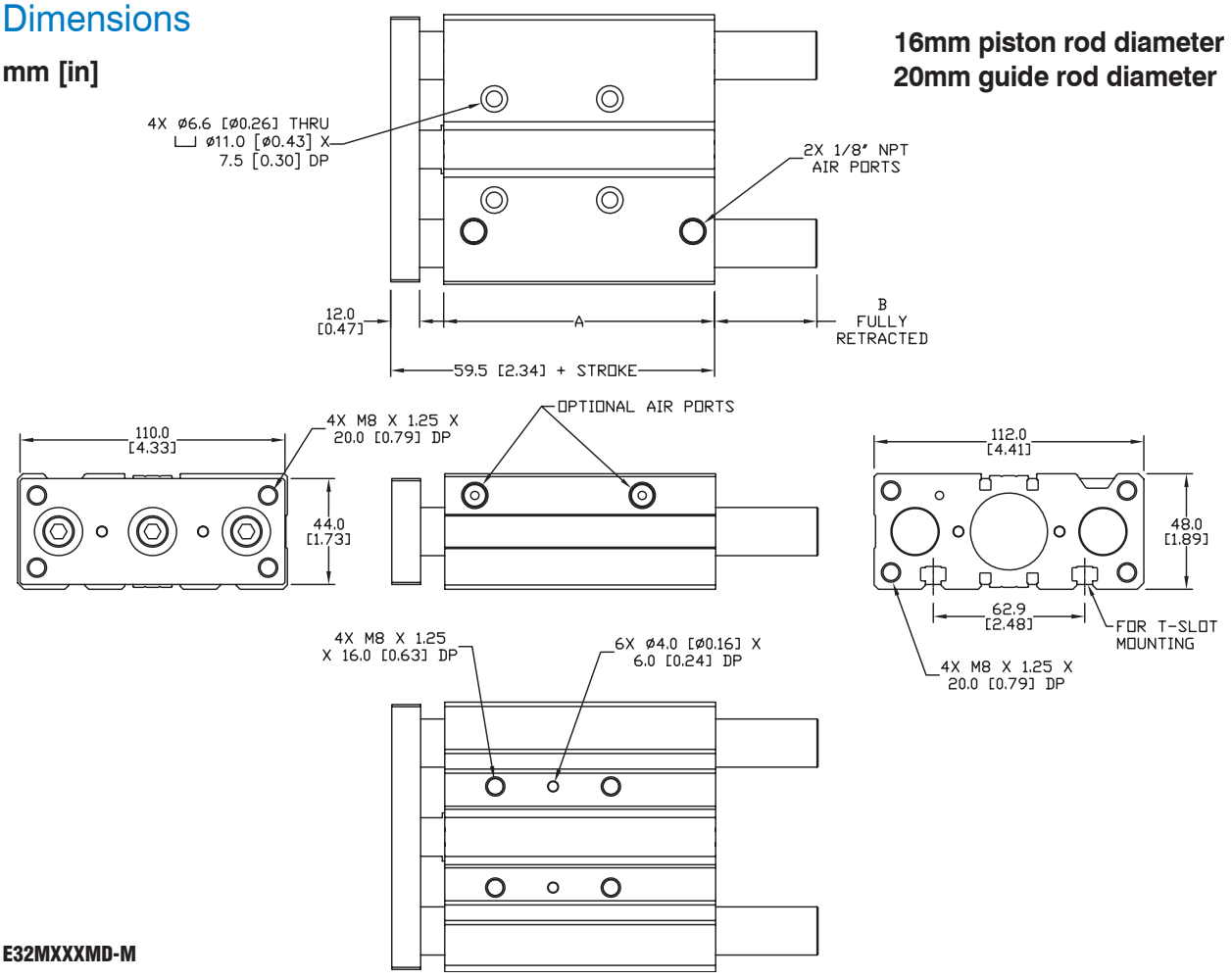
Part No. E32M050MD-M

32 mm Bore D-Series Dual Guide Rod Cylinders - Double Acting					
Part Number	*Stroke Length (mm)*	*"A" (mm [in])*	*"B" (mm [in])*	*Weight (lbs)*	*Price*
E32M025MD-M	25	62.5 [2.40]	5.5 [0.22]	3.3	$188.00
E32M030MD-M	30	67.5 [2.66]	5.5 [0.22]	3.5	$204.50
E32M040MD-M	40	77.5 [3.05]	5.5 [0.22]	3.8	$204.50
E32M050MD-M	50	87.5 [3.44]	5.5 [0.22]	4.1	$204.50
E32M075MD-M	75	112.5 [4.43]	42.5 [1.67]	5.8	$221.50
E32M100MD-M	100	137.5 [5.41]	42.5 [1.67]	6.6	$233.00
E32M125MD-M	125	162.5 [6.40]	58.5 [2.30]	7.6	$253.00
E32M150MD-M	150	187.5 [7.38]	58.5 [2.30]	8.4	$266.50
E32M175MD-M	175	212.5 [8.37]	58.5 [2.30]	9.3	$278.00
E32M200MD-M	200	237.5 [9.35]	58.5 [2.30]	10.1	$296.50
E32M250MD-M	250	287.5 [11.32]	80.0 [3.15]	12.0	$323.50

Dimensions

mm [in]

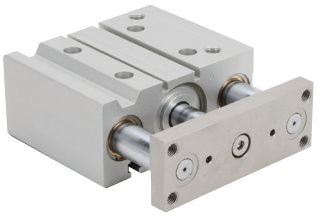
16mm piston rod diameter
20mm guide rod diameter



E32MXXXMD-M

E-Series Dual Guide Rod Cylinders

40 mm Bore, Double Acting



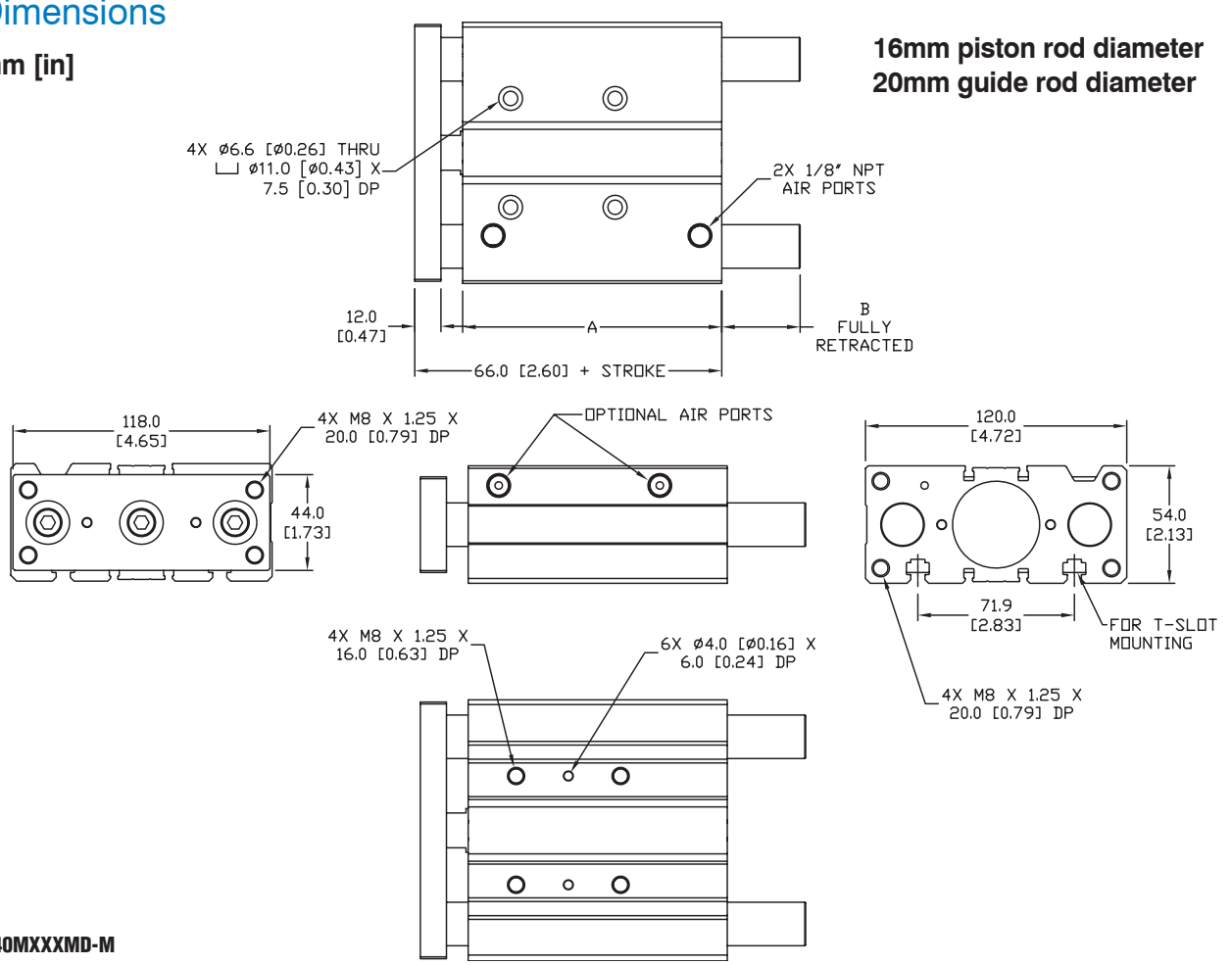
Part No. E40M050MD-M

40 mm Bore E-Series Dual Guide Rod Cylinders - Double Acting					
Part Number	*Stroke Length (mm)*	*"A" (mm [in])*	*"B" (mm [in])*	*Weight (lbs)*	*Price*
E40M025MD-M	25	69.0 [2.72]	-1.0 [-0.04]	3.8	$199.00
E40M030MD-M	30	74.0 [2.91]	-1.0 [-0.04]	4.0	$210.00
E40M040MD-M	40	84.0 [3.31]	-1.0 [-0.04]	4.4	$214.00
E40M050MD-M	50	94.0 [3.70]	-1.0 [-0.04]	4.7	$214.00
E40M075MD-M	75	119.0 [4.69]	36.0 [1.42]	6.5	$232.00
E40M100MD-M	100	144.0 [5.67]	36.0 [1.42]	7.4	$244.00
E40M125MD-M	125	169.0 [6.65]	52.0 [2.05]	8.5	$262.00
E40M150MD-M	150	194.0 [7.64]	52.0 [2.05]	9.4	$277.50
E40M175MD-M	175	219.0 [8.62]	52.0 [2.05]	10.5	$287.50
E40M200MD-M	200	244.0 [9.61]	52.0 [2.05]	11.3	$304.00
E40M250MD-M	250	294.0 [11.6]	74.0 [2.91]	13.4	$334.00

Dimensions

mm [in]

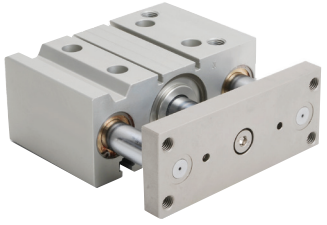
16mm piston rod diameter
20mm guide rod diameter



E40MXXXMD-M

E-Series Dual Guide Rod Cylinders

50 mm Bore, Double Acting



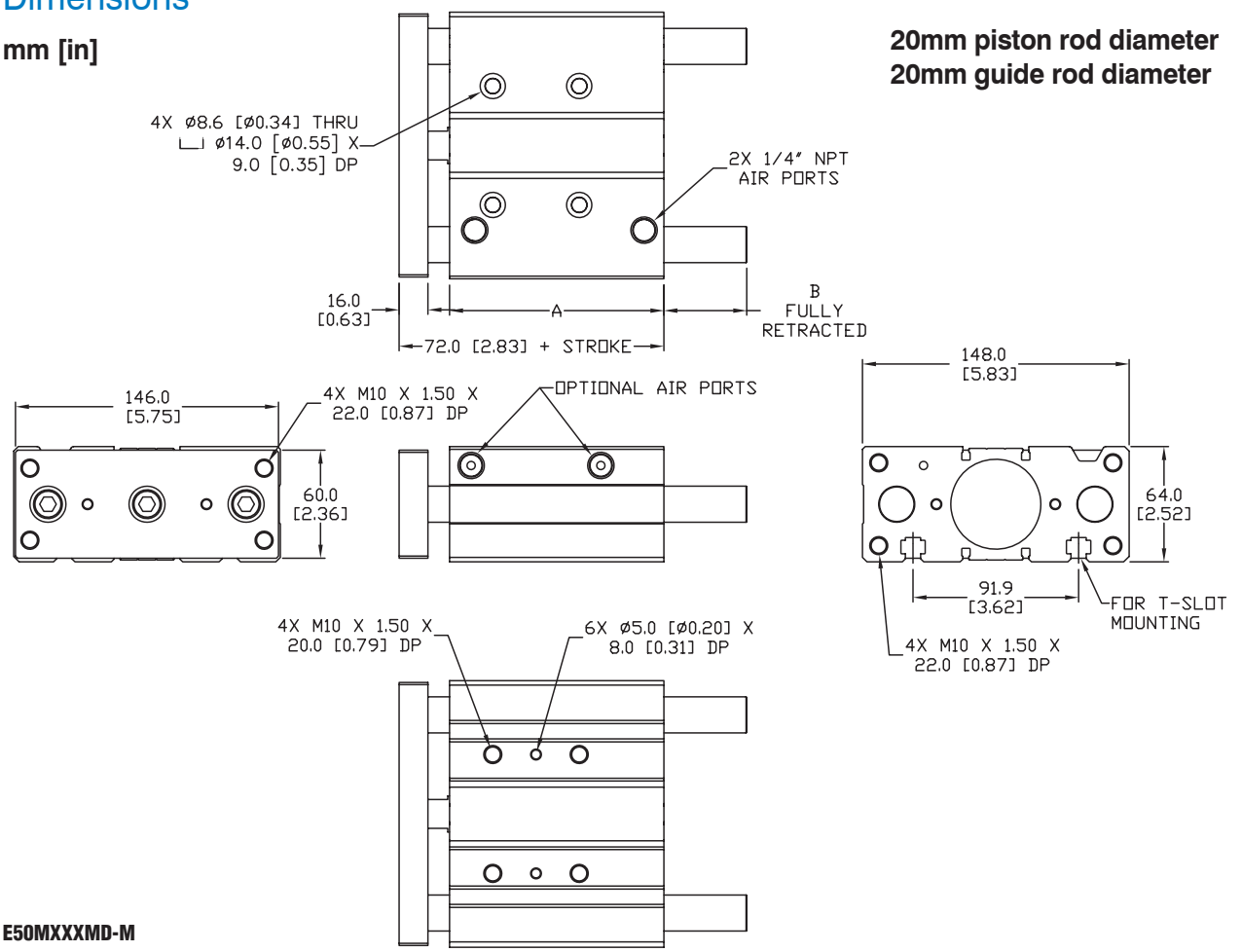
Part No. E50M050MD-M

50 mm Bore E-Series Dual Guide Rod Cylinders - Double Acting					
Part Number	*Stroke Length (mm)*	*"A" (mm [in])*	*"B" (mm [in])*	*Weight (lbs)*	*Price*
E50M025MD-M	25	69.0 [2.72]	4.0 [0.16]	6.0	$229.50
E50M030MD-M	30	74.0 [2.91]	4.0 [0.16]	6.3	$251.50
E50M040MD-M	40	84.0 [3.31]	4.0 [0.16]	6.8	$251.50
E50M050MD-M	50	94.0 [3.70]	4.0 [0.16]	7.3	$251.50
E50M075MD-M	75	119.0 [4.69]	46.0 [1.81]	9.8	$265.00
E50M100MD-M	100	144.0 [5.67]	46.0 [1.81]	11.0	$282.50
E50M125MD-M	125	169.0 [6.65]	62.0 [2.44]	12.5	$301.00
E50M150MD-M	150	194.0 [7.64]	62.0 [2.44]	13.8	$319.00
E50M175MD-M	175	219.0 [8.62]	62.0 [2.44]	15.1	$334.00
E50M200MD-M	200	244.0 [9.61]	62.0 [2.44]	16.4	$353.50
E50M250MD-M	250	294.0 [11.6]	89.0 [3.50]	19.6	$401.50

Dimensions

mm [in]

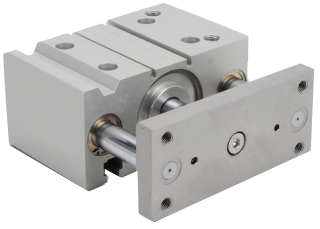
20mm piston rod diameter
20mm guide rod diameter



E50MXXXMD-M

E-Series Dual Guide Rod Cylinders

63 mm Bore, Double Acting



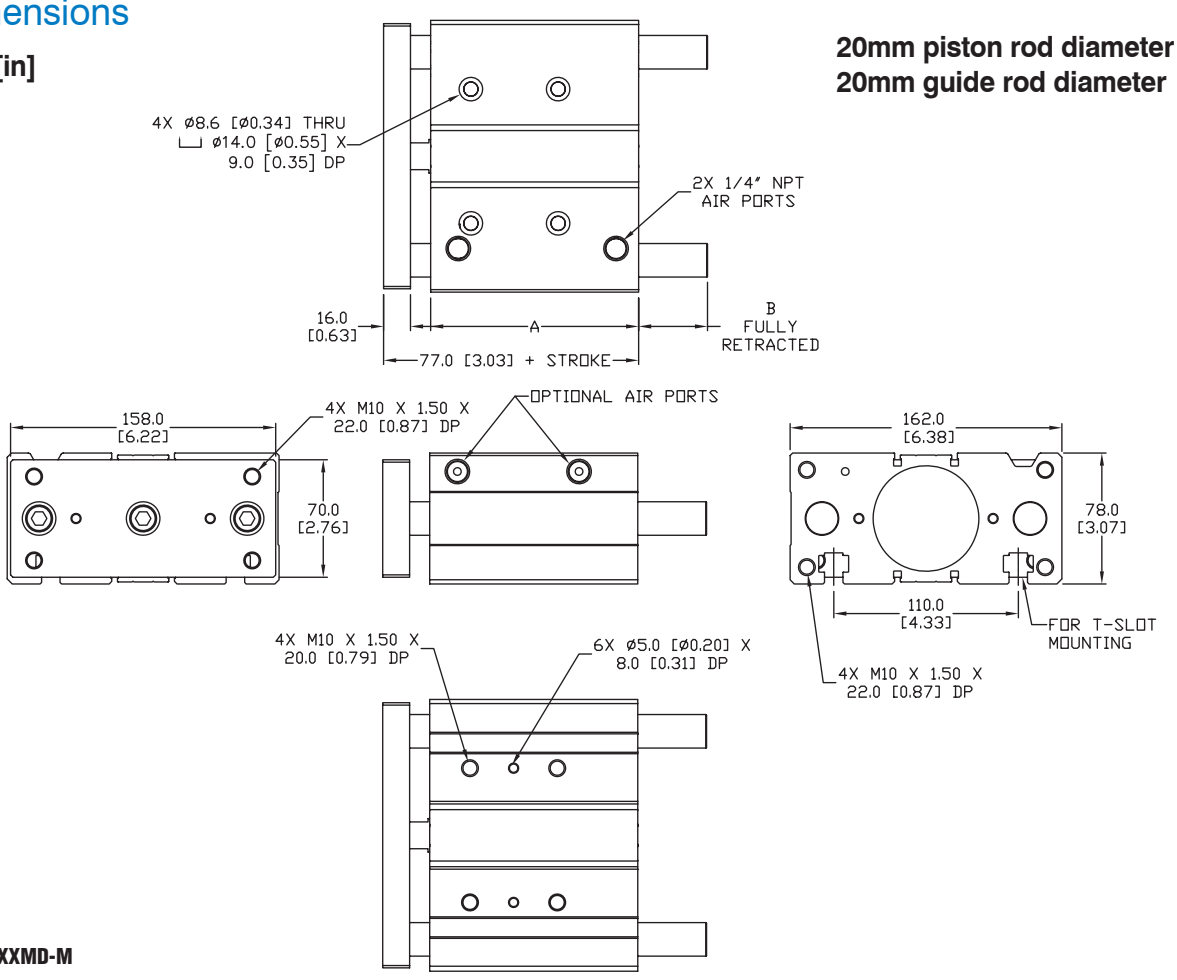
Part No. E63M050MD-M

63 mm Bore E-Series Dual Guide Rod Cylinders - Double Acting					
Part Number	*Stroke Length (mm)*	*"A" (mm [in])*	*"B" (mm [in])*	*Weight (lbs)*	*Price*
E63M025MD-M	25	74.0 [2.91]	-1.0 [-0.04]	7.6	$239.00
E63M030MD-M	30	79.0 [3.11]	-1.0 [-0.04]	8.0	$259.50
E63M040MD-M	40	89.0 [3.50]	-1.0 [-0.04]	8.6	$259.50
E63M050MD-M	50	99.0 [3.90]	-1.0 [-0.04]	9.2	$260.00
E63M075MD-M	75	124.0 [4.88]	41.0 [1.61]	11.9	$281.50
E63M100MD-M	100	149.0 [5.87]	41.0 [1.61]	13.5	$294.50
E63M125MD-M	125	174.0 [6.85]	57.0 [2.24]	15.3	$311.50
E63M150MD-M	150	199.0 [7.83]	57.0 [2.24]	16.7	$334.00
E63M175MD-M	175	224.0 [8.82]	57.0 [2.24]	18.2	$345.50
E63M200MD-M	200	249.0 [9.80]	57.0 [2.24]	19.7	$370.00
E63M250MD-M	250	299.0 [11.8]	84.0 [3.31]	23.1	$398.00

Dimensions

mm [in]

20mm piston rod diameter
20mm guide rod diameter



E63MXXXMD-M

NITRA PNEUMATICS

E-Series Dual Guide Rod Cylinders - Load and Torque Ratings

Cylinder Max Side Load Ratings (lbs)													
Bore Size (mm)	Stroke (mm)												
	10	20	25	30	40	50	75	100	125	150	175	200	250
12	9.9	7.4	6.5	5.9	9.2	8.1	5.9	5.0	4.3	3.8	–	–	–
16	15	11	9.5	8.3	14	13	8.3	7.2	6.1	5.4	5.0	4.5	–
20	–	18	14	13	28	25	20	17	15	13	12	11	9.5
25	–	21	20	17	32	29	23	19	20	18	16	15	12
32	–	–	46	43	40	37	41	35	32	29	26	24	20
40	–	–	46	43	40	37	41	35	32	29	26	24	20
50	–	–	67	64	60	55	61	54	49	44	40	37	32
63	–	–	67	64	60	55	61	54	49	44	40	37	32

Conversion: 1 lb = 4.45 N

Cylinder Max Torque Ratings (in-lb)													
Bore Size (mm)	Stroke (mm)												
	10	20	25	30	40	50	75	100	125	150	175	200	250
12	7.97	6.99	6.28	5.75	6.82	6.37	4.43	3.19	2.74	2.39	–	–	–
16	10.7	9.20	8.32	7.79	10.89	9.82	6.11	5.13	4.43	3.89	3.54	3.19	–
20	–	13.9	12.6	11.6	21.2	19.0	16.6	14.4	12.7	11.3	10.3	9.38	7.97
25	–	21.2	19.6	17.8	32.4	29.7	26.2	22.7	20.0	17.9	16.2	14.8	12.6
32	–	–	56.2	53.1	50.7	45.4	50.4	44.0	39.1	35.2	32.0	29.3	25.1
40	–	–	62.0	58.4	54.1	50.1	55.5	48.5	43.1	38.8	35.2	32.3	27.7
50	–	–	115	112	97.4	95.6	106	93.8	84.1	76.1	69.6	64.1	55.2
63	–	–	130	120	114	107	119	105	94.7	85.8	78.4	72.2	62.3

Conversion: 1 in-lb = 0.113 N-m

G-Series ISO Pneumatic Cylinders – 32mm Bore

32mm Bore, Double-acting, Magnetic Piston, Cushions



Part no. G32M125MD-MC

NITRA pneumatic ISO 15552 interchangeable cylinder, 32mm bore, 12mm diameter piston rod, G1/8 (BSPP) female ports, double acting; flange, pivot and clevis mount options available. Adjustable cushions on both ends. See the end of the section for accessory details.

Features

- Adjustable cushions
- Internal magnet for sensor switching
- Three sides with longitudinal slots for inserting and securing retractable sensors such as type CPS9F and CPS9Q (see position switches at the end of the cylinder section for further details)
- G (BSPP) threaded ports

32mm bore, double acting, tapped end caps				
Part Number	*Price*	*Stroke Length (mm)*	*"A" (mm [inch])*	*Weight (lb)*
G32M025MD-MC	$57.00	25	119 [4.69]	1.1
G32M050MD-MC	$59.00	50	144 [5.67]	1.3
G32M075MD-MC	$61.00	75	169 [6.65]	1.4
G32M100MD-MC	$62.00	100	194 [7.64]	1.6
G32M125MD-MC	$64.00	125	219 [8.62]	1.9
G32M150MD-MC	$65.00	150	244 [9.61]	2.0
G32M200MD-MC	$69.00	200	294 [11.57]	2.4
G32M250MD-MC	$72.00	250	344 [13.54]	2.7
G32M300MD-MC	$75.00	300	394 [15.51]	3.1
G32M400MD-MC	$80.00	400	494 [19.45]	3.7
G32M500MD-MC	$86.00	500	594 [23.39]	4.4
G32M600MD-MC	$93.00	600	694 [27.32]	5.1

** The cushions decelerate the piston rod over the last mm (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.*

Specifications	
Aluminum body and end caps	Plastoferrite magnet
C45 chromed piston rod	NBR (Nitrile Butadiene Rubber) buffer + static o-rings
Die cast aluminum head	NBR (Nitrile Butadiene Rubber) cushioning gasket
NBR (Nitrile Butadiene Rubber) piston and piston rod gasket	Brass cushioning needle with needle out movement safety system
Steel guide bushing with bronze and PTFE (Teflon) insert	Pressure rating 145 psi [10 bar], AIR ONLY
Drawn anodized aluminum body	Temperature rating 14°F to 176°F [-10°C to 80°C]
Self-lubricating technopolymer piston	
Extend force at 100 psi = 124.6 lb.	Retract force at 100 psi = 107.1 lb.

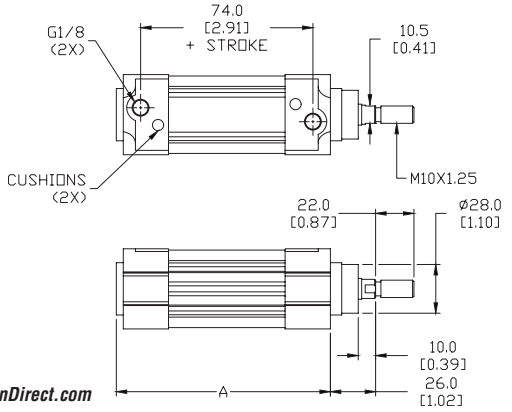
BSPP = British Standard Pipe Parallel

Mounting Accessories	
Style	*Part No.*
Foot Mount	GMB-32MM
Front or Rear Flange	GFL-32MM
Male Rear Clevis	GMC-32MM
Spherical Male Clevis	GSMC-32MM

Rod Accessories	
Style	*Part No.*
Rod Clevis	GRC-M10-125
Rod Eye	GRE-M10-125
Self Aligning Rod Coupler	GRCP-M10-125
Rod Nut	GN-M10-125

Dimensions

mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.

G-Series ISO Pneumatic Cylinders – 40mm Bore

40mm Bore, Double-acting, Magnetic Piston, Cushions



Part no. G40M125MD-MC

NITRA pneumatic ISO 15552 interchangeable cylinder, 40mm bore, 16mm diameter piston rod, G1/4 (BSPP) female ports, double acting; flange, pivot and clevis mount options available. Adjustable cushions on both ends. See the end of the section for accessory details.

Features

- Adjustable cushions
- Internal magnet for sensor switching
- Three sides with longitudinal slots for inserting and securing retractable sensors such as type CPS9F and CPS9Q (see position switches at the end of the cylinder section for further details)
- G (BSPP) threaded ports

40mm bore, double acting, tapped end caps				
Part Number	*Price*	*Stroke Length (mm)*	*"A" (mm [inch])*	*Weight (lb)*
G40M025MD-MC	$66.00	25	130 [5.12]	1.8
G40M050MD-MC	$68.00	50	155 [6.10]	2.0
G40M075MD-MC	$69.00	75	180 [7.09]	2.2
G40M100MD-MC	$72.00	100	205 [8.07]	2.5
G40M125MD-MC	$73.00	125	230 [9.06]	2.7
G40M150MD-MC	$75.00	150	255 [10.04]	2.9
G40M200MD-MC	$78.00	200	305 [12.01]	3.4
G40M250MD-MC	$82.00	250	355 [13.98]	3.8
G40M300MD-MC	$86.00	300	405 [15.94]	4.3
G40M400MD-MC	$94.00	400	505 [19.88]	5.1
G40M500MD-MC	$101.00	500	605 [23.82]	6.0
G40M600MD-MC	$108.00	600	705 [27.76]	6.9

** The cushions decelerate the piston rod over the last mm (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.*

Specifications	
Aluminum body and end caps	Plastoferrite magnet
C45 chromed piston rod	NBR (Nitrile Butadiene Rubber) buffer + static o-rings
Die cast aluminum head	NBR (Nitrile Butadiene Rubber) cushioning gasket
NBR (Nitrile Butadiene Rubber) piston and piston rod gasket	Brass cushioning needle with needle out movement safety system
Steel guide bushing with bronze and PTFE (Teflon) insert	Pressure rating 145 psi [10 bar], AIR ONLY
Drawn anodized aluminum body	Temperature rating 14°F to 176°F [-10°C to 80°C]
Self-lubricating technopolymer piston	
Extend force at 100 psi = 194.6 lb.	Retract force at 100 psi = 163.4 lb.

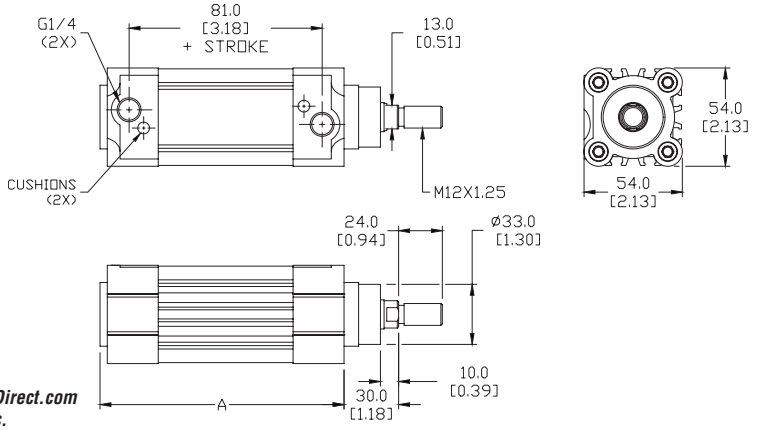
BSPP = British Standard Pipe Parallel

Mounting
Style
Foot Mount
Front or Rear Flange
Male Rear Clevis
Spherical Male Clevis

Rod Accessories	
Style	*Part No.*
Rod Clevis	GRC-M12-125
Rod Eye	GRE-M12-125
Self Aligning Rod Coupler	GRCP-M12-125
Rod Nut	GN-M12-125

Dimensions

mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.

G-Series ISO Pneumatic Cylinders – 50mm Bore

50mm Bore, Double-acting, Magnetic Piston, Cushions



Part no. G50M125MD-MC

NITRA pneumatic ISO 15552 interchangeable cylinder, 50mm bore, 20mm diameter piston rod, G1/4 (BSPP) female ports, double acting; flange, pivot and clevis mount options available. Adjustable cushions on both ends. See the end of the section for accessory details.

Features

- Adjustable cushions
- Internal magnet for sensor switching
- Three sides with longitudinal slots for inserting and securing retractable sensors such as type CPS9F and CPS9Q (see position switches at the end of the cylinder section for further details)
- G (BSPP) threaded ports

50mm bore, double acting, tapped end caps				
Part Number	**Price**	**Stroke Length (mm)**	**"A" (mm [inch])**	**Weight (lb)**
G50M025MD-MC	$76.00	25	131 [5.16]	2.8
G50M050MD-MC	$79.00	50	156 [6.14]	3.2
G50M075MD-MC	$81.00	75	181 [7.13]	3.5
G50M100MD-MC	$83.00	100	206 [8.11]	3.8
G50M125MD-MC	$86.00	125	231 [9.09]	4.1
G50M150MD-MC	$88.00	150	256 [10.08]	4.5
G50M200MD-MC	$93.00	200	306 [12.05]	5.1
G50M250MD-MC	$98.00	250	356 [14.06]	5.8
G50M300MD-MC	$102.00	300	406 [15.98]	6.4
G50M400MD-MC	$112.00	400	506 [19.92]	7.7
G50M500MD-MC	$122.00	500	606 [23.86]	9.0
G50M600MD-MC	$132.00	600	706 [27.80]	10.3

** The cushions decelerate the piston rod over the last mm (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.*

Specifications	
Aluminum body and end caps	Plastoferrite magnet
C45 chromed piston rod	NBR (Nitrile Butadiene Rubber) buffer + static o-rings
Die cast aluminum head	NBR (Nitrile Butadiene Rubber) cushioning gasket
NBR (Nitrile Butadiene Rubber) piston and piston rod gasket	Brass cushioning needle with needle out movement safety system
Steel guide bushing with bronze and PTFE (Teflon) insert	Pressure rating 145 psi [10 bar], AIR ONLY
Drawn anodized aluminum body	Temperature rating 14°F to 176°F [-10°C to 80°C]
Self-lubricating technopolymer piston	
Extend force at 100 psi = 304.3 lb.	Retract force at 100 psi = 255.6 lb.

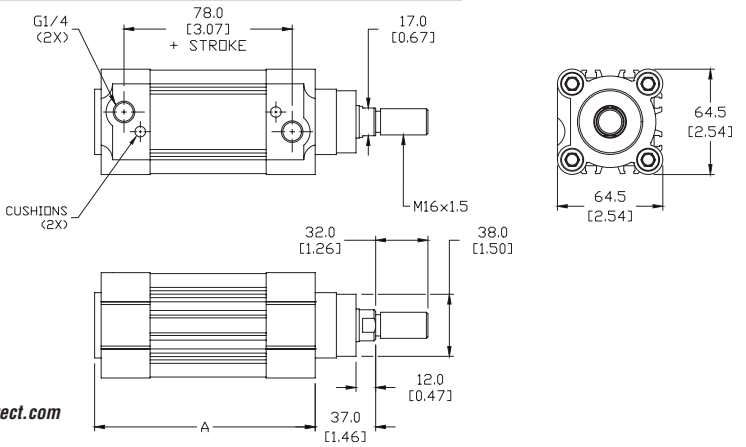
BSPP = British Standard Pipe Parallel

Mounting Accessories	
Style	**Part No.**
Foot Mount	GMB-50MM
Front or Rear Flange	GFL-50MM
Male Rear Clevis	GMC-50MM
Spherical Male Clevis	GSMC-50MM

Rod Accessories	
Style	**Part No.**
Rod Clevis	GRC-M16-15
Rod Eye	GRE-M16-15
Self Aligning Rod Coupler	GRCP-M16-15
Rod Nut	GN-M16-15

Dimensions

mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.

G-Series ISO Pneumatic Cylinders – 63mm Bore

63mm Bore, Double-acting, Magnetic Piston, Cushions



Part no. G63M125MD-MC

NITRA pneumatic ISO 15552 interchangeable cylinder, 63mm bore, 20mm diameter piston rod, G3/8 (BSPP) female ports, double acting; flange, pivot and clevis mount options available. Adjustable cushions on both ends. See the end of the section for accessory details.

Features

- Adjustable cushions
- Internal magnet for sensor switching
- Three sides with longitudinal slots for inserting and securing retractable sensors such as type CPS9F and CPS9Q (see position switches at the end of the cylinder section for further details)
- G (BSPP) threaded ports

63mm bore, double acting, tapped end caps				
Part Number	*Price*	*Stroke Length (mm)*	*"A" (mm [inch])*	*Weight (lb)*
G63M025MD-MC	$94.00	25	146 [5.75]	3.7
G63M050MD-MC	$97.00	50	171 [6.73]	4.0
G63M075MD-MC	$100.00	75	196 [7.72]	4.4
G63M100MD-MC	$103.00	100	221 [8.70]	4.7
G63M125MD-MC	$105.00	125	246 [9.69]	5.0
G63M150MD-MC	$107.00	150	271 [10.67]	5.3
G63M200MD-MC	$112.00	200	321 [12.64]	6.0
G63M250MD-MC	$117.00	250	371 [14.61]	6.6
G63M300MD-MC	$122.00	300	421 [16.57]	7.3
G63M400MD-MC	$132.00	400	521 [20.51]	8.6
G63M500MD-MC	$142.00	500	621 [24.45]	9.8
G63M600MD-MC	$152.00	600	721 [28.39]	11.2

** The cushions decelerate the piston rod over the last mm (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.*

Specifications	
Aluminum body and end caps	Plastoferrite magnet
C45 chromed piston rod	NBR (Nitrile Butadiene Rubber) buffer + static o-rings
Die cast aluminum head	NBR (Nitrile Butadiene Rubber) cushioning gasket
NBR (Nitrile Butadiene Rubber) piston and piston rod gasket	Brass cushioning needle with needle out movement safety system
Steel guide bushing with bronze and PTFE (Teflon) insert	Pressure rating 145 psi [10 bar], AIR ONLY
Drawn anodized aluminum body	Temperature rating 14°F to 176°F [-10°C to 80°C]
Self-lubricating technopolymer piston	
Extend force at 100 psi = 483.0 lb.	Retract force at 100 psi = 434.4 lb.

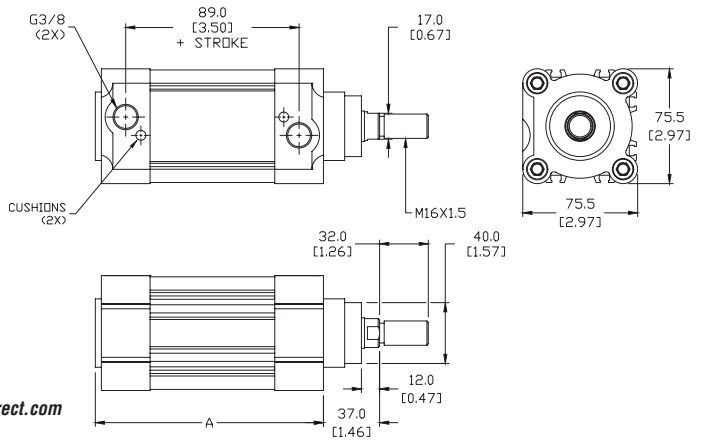
BSPP = British Standard Pipe Parallel

Mounting Accessories	
Style	*Part No.*
Foot Mount	GMB-63MM
Front or Rear Flange	GFL-63MM
Male Rear Clevis	GMC-63MM
Spherical Male Clevis	GSMC-63MM

Rod Accessories	
Style	*Part No.*
Rod Clevis	GRC-M16-15
Rod Eye	GRE-M16-15
Self Aligning Rod Coupler	GRCP-M16-15
Rod Nut	GN-M16-15

Dimensions

mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.

G-Series ISO Pneumatic Cylinders – 80mm Bore

80mm Bore, Double-acting, Magnetic Piston, Cushions



Part no. G80M125MD-MC

NITRA pneumatic ISO 15552 interchangeable cylinder, 80mm bore, 25mm diameter piston rod, G3/8 (BSPP) female ports, double acting; flange, pivot and clevis mount options available. Adjustable cushions on both ends. See the end of the section for accessory details.

Features

- Adjustable cushions
- Internal magnet for sensor switching
- Three sides with longitudinal slots for inserting and securing retractable sensors such as type CPS9F and CPS9Q (see position switches at the end of the cylinder section for further details)
- G (BSPP) threaded ports

80mm bore, double acting, tapped end caps				
Part Number	Price	Stroke Length (mm)	"A" (mm [inch])	Weight (lb)
G80M025MD-MC	$108.00	25	153 [6.02]	6.9
G80M050MD-MC	$112.00	50	178 [7.01]	7.4
G80M075MD-MC	$116.00	75	203 [7.99]	7.9
G80M100MD-MC	$119.00	100	228 [11.33]	8.4
G80M125MD-MC	$123.00	125	253 [9.96]	8.9
G80M150MD-MC	$126.00	150	278 [10.94]	9.4
G80M200MD-MC	$134.00	200	328 [12.91]	10.4
G80M250MD-MC	$142.00	250	378 [14.88]	11.4
G80M300MD-MC	$149.00	300	428 [16.85]	12.4
G80M400MD-MC	$164.00	400	528 [20.79]	14.4
G80M500MD-MC	$179.00	500	628 [24.72]	16.4
G80M600MD-MC	$193.00	600	728 [28.66]	18.4

** The cushions decelerate the piston rod over the last mm (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.*

Specifications	
Aluminum body and end caps	Plastoferrite magnet
C45 chromed piston rod	NBR (Nitrile Butadiene Rubber) buffer + static o-rings
Die cast aluminum head	NBR (Nitrile Butadiene Rubber) cushioning gasket
NBR (Nitrile Butadiene Rubber) piston and piston rod gasket	Brass cushioning needle with needle out movement safety system
Steel guide bushing with bronze and PTFE (Teflon) insert	Pressure rating 145 psi [10 bar], AIR ONLY
Drawn anodized aluminum body	Temperature rating 14°F to 176°F [-10°C to 80°C]
Aluminum piston with PTFE (Teflon) pad	
Extend force at 100 psi = 779.1 lb.	Retract force at 100 psi = 703.0 lb.

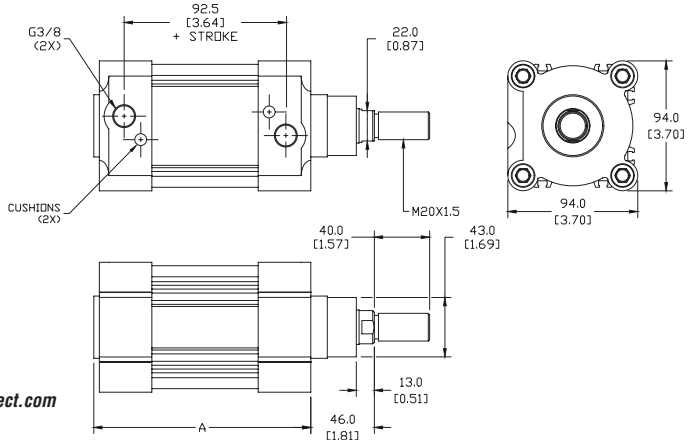
BSPP = British Standard Pipe Parallel

Mounting Accessories	
Style	Part No.
Foot Mount	GMB-80MM
Front or Rear Flange	GFL-80MM
Male Rear Clevis	GMC-80MM
Spherical Male Clevis	GSMC-80MM

Rod Accessories	
Style	Part No.
Rod Clevis	GRC-M20-15
Rod Eye	GRE-M20-15
Self Aligning Rod Coupler	GRCP-M20-15
Rod Nut	GN-M20-15

Dimensions

mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.

G-Series ISO Pneumatic Cylinders – 100mm Bore

100mm Bore, Double-acting, Magnetic Piston, Cushions



Part no. G100M125MD-MC

NITRA pneumatic ISO 15552 interchangeable cylinder, 100mm bore, 25mm diameter piston rod, G1/2 (BSPP) female ports, double acting; flange, pivot and clevis mount options available. Adjustable cushions on both ends. See the end of the section for accessory details.

Features

- Adjustable cushions
- Internal magnet for sensor switching
- Three sides with longitudinal slots for inserting and securing retractable sensors such as type CPS9F and CPS9Q (see position switches at the end of the cylinder section for further details)
- G (BSPP) threaded ports

100mm bore, double acting, tapped end caps				
Part Number	*Price*	*Stroke Length (mm)*	*"A" (mm [inch])*	*Weight (lb)*
G100M025MD-MC	$149.00	25	163 [6.42]	9.3
G100M050MD-MC	$153.00	50	188 [7.40]	9.8
G100M075MD-MC	$157.00	75	213 [8.39]	10.3
G100M100MD-MC	$161.00	100	238 [9.37]	10.8
G100M125MD-MC	$165.00	125	263 [10.35]	11.4
G100M150MD-MC	$168.00	150	288 [11.34]	11.9
G100M200MD-MC	$176.00	200	338 [13.31]	13.0
G100M250MD-MC	$185.00	250	388 [15.28]	14.0
G100M300MD-MC	$192.00	300	438 [17.24]	15.0
G100M400MD-MC	$208.00	400	538 [21.18]	17.1
G100M500MD-MC	$224.00	500	638 [25.12]	19.2
G100M600MD-MC	$239.00	600	738 [29.10]	21.3

** The cushions decelerate the piston rod over the last mm (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.*

Specifications	
Aluminum body and end caps	Plastoferrite magnet
C45 chromed piston rod	NBR (Nitrile Butadiene Rubber) buffer + static o-rings
Die cast aluminum head	NBR (Nitrile Butadiene Rubber) cushioning gasket
NBR (Nitrile Butadiene Rubber) piston and piston rod gasket	Brass cushioning needle with needle out movement safety system
Steel guide bushing with bronze and PTFE (Teflon) insert	Pressure rating 145 psi [10 bar], AIR ONLY
Drawn anodized aluminum body	Temperature rating 14°F to 176°F [-10°C to 80°C]
Aluminum piston with PTFE (Teflon) pad	
Extend force at 100 psi = 1217.4 lb.	Retract force at 100 psi = 1141.3 lb.

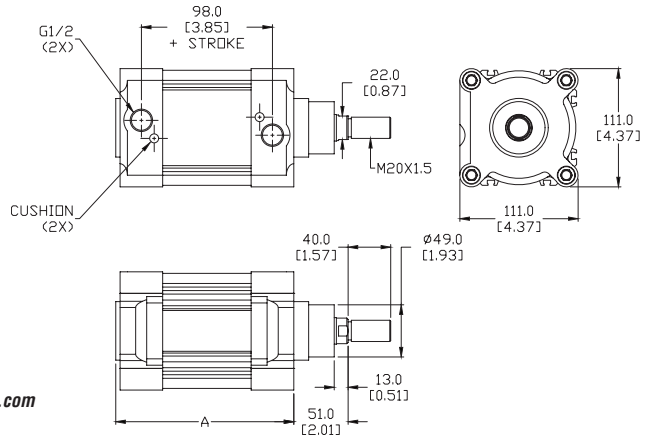
BSPP = British Standard Pipe Parallel

Mounting Accessories	
Style	*Part No.*
Foot Mount	GMB-100MM
Front or Rear Flange	GFL-100MM
Male Rear Clevis	GMC-100MM
Spherical Male Clevis	GSMC-100MM

Rod Accessories	
Style	*Part No.*
Rod Clevis	GRC-M20-15
Rod Eye	GRE-M20-15
Self Aligning Rod Coupler	GRCP-M20-15
Rod Nut	GN-M20-15

Dimensions

mm [inches]



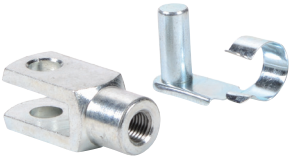
See our website www.AutomationDirect.com for complete Engineering drawings.

G-Series ISO Pneumatic Cylinders – Accessories

D-Series Heavy Duty Pneumatic Cylinder Accessories				
Part Number	**Description**	**Pcs/Pkg**	**Wt (lb)**	**Price**
GRC-M10-125	Rod clevis, M10 X 1.25 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	0.2	$3.75
GRC-M12-125	Rod clevis, M12 X 1.25 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	0.3	$6.00
GRC-M16-15	Rod clevis, M16 X 1.5 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	0.8	$13.00
GRC-M20-15	Rod clevis, M20 X 1.5 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	1.5	$22.00
GRE-M10-125	Rod eye, M10 X 1.25 thread, spherical bearing, zinc plated steel. For use with NITRA G-series cylinders.	1	0.2	$22.00
GRE-M12-125	Rod eye, M12 X 1.25 thread, spherical bearing, zinc plated steel. For use with NITRA G-series cylinders.	1	0.3	$24.00
GRE-M16-15	Rod eye, M16 X 1.5 thread, spherical bearing, zinc plated steel. For use with NITRA G-series cylinders.	1	0.5	$44.00
GRE-M20-15	Rod eye, M20 X 1.5 thread, spherical bearing, zinc plated steel. For use with NITRA G-series cylinders.	1	0.9	$59.00
GRCP-M10-125	Self-aligning rod coupler, M10 X 1.25 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	0.5	$47.00
GRCP-M12-125	Self-aligning rod coupler, M12 X 1.25 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	0.7	$50.00
GRCP-M16-15	Self-aligning rod coupler, M16 X 1.5 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	1.4	$64.00
GRCP-M20-15	Self-aligning rod coupler, M20 X 1.5 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	1.5	$78.00
GMB-32MM	Foot mount bracket, zinc plated steel. For use with 32mm bore NITRA G-series cylinders.	1	0.2	$5.75
GMB-40MM	Foot mount bracket, zinc plated steel. For use with 40mm bore NITRA G-series cylinders.	1	0.3	$6.75
GMB-50MM	Foot mount bracket, zinc plated steel. For use with 50mm bore NITRA G-series cylinders.	1	0.4	$8.00
GMB-63MM	Foot mount bracket, zinc plated steel. For use with 63mm bore NITRA G-series cylinders.	1	0.6	$8.50
GMB-80MM	Foot mount bracket, zinc plated steel. For use with 80mm bore NITRA G-series cylinders.	1	1.0	$12.00
GMB-100MM	Foot mount bracket, zinc plated steel. For use with 100mm bore NITRA G-series cylinders.	1	1.3	$20.00
GMC-32MM	Rear pivot eye, zinc plated steel. For use with 32mm bore NITRA G-series cylinders.	1	0.2	$15.00
GMC-40MM	Rear pivot eye, zinc plated steel. For use with 40mm bore NITRA G-series cylinders.	1	0.3	$16.00
GMC-50MM	Rear pivot eye, zinc plated steel. For use with 50mm bore NITRA G-series cylinders.	1	0.6	$18.00
GMC-63MM	Rear pivot eye, zinc plated steel. For use with 63mm bore NITRA G-series cylinders.	1	0.9	$22.00
GMC-80MM	Rear pivot eye, zinc plated steel. For use with 80mm bore NITRA G-series cylinders.	1	1.5	$27.00
GMC-100MM	Rear pivot eye, zinc plated steel. For use with 100mm bore NITRA G-series cylinders.	1	2.4	$37.00
GSMC-32MM	Rear spherical pivot, spherical bearing, zinc plated steel. For use with 32mm bore NITRA G-series cylinders.	1	0.3	$21.00
GSMC-40MM	Rear spherical pivot, spherical bearing, zinc plated steel. For use with 40mm bore NITRA G-series cylinders.	1	0.4	$23.00
GSMC-50MM	Rear spherical pivot, spherical bearing, zinc plated steel. For use with 50mm bore NITRA G-series cylinders.	1	0.5	$32.00
GSMC-63MM	Rear spherical pivot, spherical bearing, zinc plated steel. For use with 63mm bore NITRA G-series cylinders.	1	0.7	$41.00
GSMC-80MM	Rear spherical pivot, spherical bearing, zinc plated steel. For use with 80mm bore NITRA G-series cylinders.	1	1.3	$52.00
GSMC-100MM	Rear spherical pivot, spherical bearing, zinc plated steel. For use with 100mm bore NITRA G-series cylinders.	1	1.9	$70.00
GFL-32MM	Flange mount plate, zinc plated steel. For use with 32mm bore NITRA G-series cylinders.	1	0.5	$10.00
GFL-40MM	Flange mount plate, zinc plated steel. For use with 40mm bore NITRA G-series cylinders.	1	0.6	$11.00
GFL-50MM	Flange mount plate, zinc plated steel. For use with 50mm bore NITRA G-series cylinders.	1	1.2	$13.00
GFL-63MM	Flange mount plate, zinc plated steel. For use with 63mm bore NITRA G-series cylinders.	1	1.5	$19.00
GFL-80MM	Flange mount plate, zinc plated steel. For use with 80mm bore NITRA G-series cylinders.	1	3.1	$22.00
GFL-100MM	Flange mount plate, zinc plated steel. For use with 100mm bore NITRA G-series cylinders.	1	4.5	$26.00
GN-M10-125	Rod nut, M10 X 1.25 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	0.2	$1.50
GN-M12-125	Rod nut, M12 X 1.25 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	0.2	$1.75
GN-M16-15	Rod nut, M16 X 1.5 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	0.2	$2.00
GN-M20-15	Rod nut, M20 X 1.5 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	0.2	$2.25

G-Series ISO Pneumatic Cylinders – Accessories

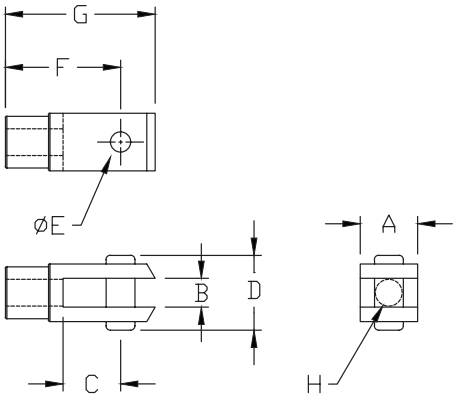
Rod Clevis



Part no. GRC-M10-125

Dimensions

mm [inches]



Note: Comes with Pivot Pin installed.

Rod Clevis Dimension Table								
Part #	*A*	*B*	*C*	*D*	*E*	*F*	*G*	*H*
GRC-M10-125	20.00 [0.78]	10.00 [0.39]	10.00 [0.39]	26.00 [1.02]	10.00 [0.39]	40.00 [1.57]	52.00 [2.04]	M10x1.25
GRC-M12-125	24.00 [0.94]	12.00 [0.47]	24.00 [0.94]	32.00 [1.25]	12.00 [0.47]	48.00 [1.88]	62.00 [2.44]	M12x1.25
GRC-M16-15	32.00 [1.25]	16.00 [0.62]	32.00 [1.25]	40.00 [1.57]	16.00 [0.62]	64.00 [2.51]	83.00 [3.26]	M16x1.5
GRC-M20-15	40.00 [1.57]	20.00 [0.78]	40.00 [1.57]	48.00 [1.88]	20.00 [0.78]	80.00 [3.14]	105.00 [4.13]	M20x1.5

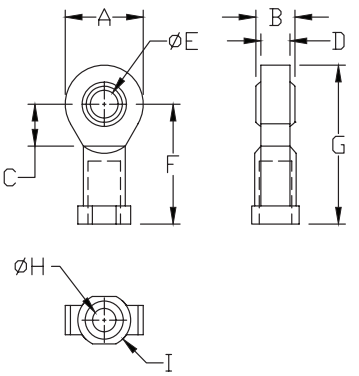
Rod Eye



Part no. GRE-M10-125

Dimensions

mm [inches]



Rod Eye Dimension Table									
Part #	*A*	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*
GRE-M10-125	28.00 [1.10]	14.00 [0.55]	15.00 [0.59]	10.50 [0.41]	10.00 [0.39]	43.00 [1.69]	57.00 [2.24]	M10x1.25	19 [0.74]
GRE-M12-125	32.00 [1.25]	16.00 [0.62]	17.00 [0.66]	12.00 [0.47]	12.00 [0.47]	50.00 [1.96]	66.00 [2.59]	M12x1.25	19 [0.74]
GRE-M16-15	42.00 [1.65]	21.00 [0.82]	22.00 [0.86]	15.00 [0.59]	16.00 [0.62]	64.00 [2.51]	85.00 [3.34]	M16x1.5	22 [0.86]
GRE-M20-15	50.00 [1.96]	25.00 [0.98]	26.00 [1.02]	18.00 [0.70]	20.00 [0.78]	77.00 [3.03]	102.00 [4.01]	M20x1.5	27 [1.06]

See our website www.AutomationDirect.com for complete Engineering drawings.

G-Series ISO Pneumatic Cylinders – Accessories

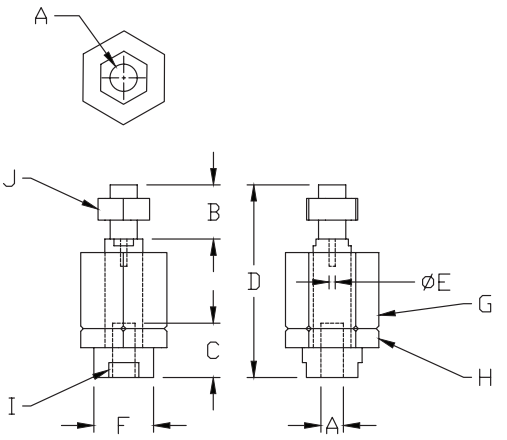
Self Aligning Rod Coupler



Part no. GRCP-M10-125

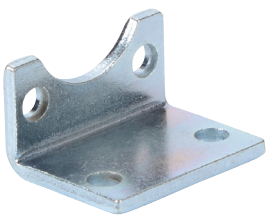
Dimensions

mm [inches]



Self Aligning Rod Coupler Dimension Table										
Part #	*A*	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*
GRCP-M10-125	M10x1.25	20.00 [0.78]	20.00 [0.78]	71.00 [2.79]	4.00 [0.15]	22.00 [0.86]	30.00 [1.18]	30.00 [1.18]	19.00 [0.74]	17.00 [0.66]
GRCP-M12-125	M12x1.25	24.00 [0.94]	20.00 [0.78]	75.00 [2.95]	4.00 [0.15]	22.00 [0.86]	30.00 [1.18]	30.00 [1.18]	19.00 [0.74]	19.00 [0.74]
GRCP-M16-15	M16x1.5	32.00 [1.25]	32.00 [1.25]	103.00 [4.05]	4.00 [0.15]	32.00 [1.25]	41.00 [1.61]	41.00 [1.61]	30.00 [1.18]	24.00 [0.94]
GRCP-M20-15	M20x1.5	40.00 [1.57]	40.00 [1.57]	119.00 [4.68]	4.00 [0.15]	32.00 [1.25]	41.00 [1.61]	41.00 [1.61]	30.00 [1.18]	30.00 [1.18]

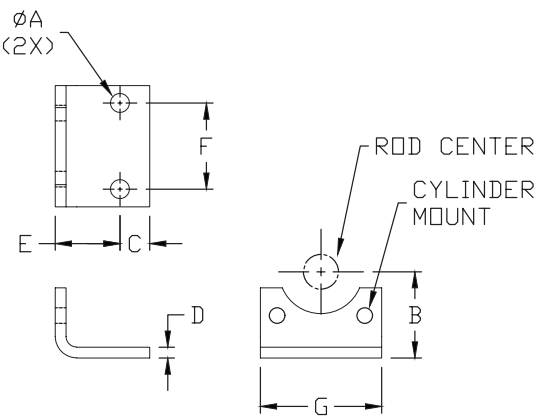
Foot Mount Bracket



Part no. GMB-32MM

Dimensions

mm [inches]



Note: Individually packed with 2 screws

Foot Mount Dimension Table							
Part #	*A*	*B*	*C*	*D*	*E*	*F*	*G*
GMB-32MM	7.00 [0.27]	32.00 [1.25]	11.00 [0.43]	4.00 [0.15]	24.00 [0.94]	32.00 [1.25]	45.00 [1.77]
GMB-40MM	9.00 [0.35]	36.00 [1.41]	15.00 [0.59]	4.00 [0.15]	28.00 [1.10]	36.00 [1.41]	52.00 [2.04]
GMB-50MM	9.00 [0.35]	45.00 [1.77]	15.00 [0.59]	4.00 [0.15]	32.00 [1.25]	45.00 [1.77]	52.00 [2.04]
GMB-63MM	9.00 [0.35]	50.00 [1.96]	15.00 [0.59]	6.00 [0.23]	32.00 [1.25]	50.00 [1.96]	75.00 [2.95]
GMB-80MM	12.00 [0.47]	63.00 [2.48]	20.00 [0.78]	6.00 [0.23]	41.00 [1.61]	63.00 [2.48]	95.00 [3.74]
GMB-100MM	14.00 [0.55]	71.00 [2.79]	25.00 [0.98]	6.00 [0.23]	41.00 [1.61]	75.00 [2.95]	115.00 [4.52]

See our website www.AutomationDirect.com for complete Engineering drawings.

G-Series ISO Pneumatic Cylinders – Accessories

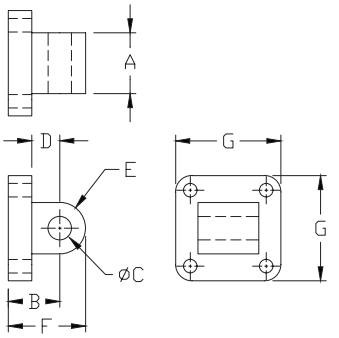
Rear Pivot Eye



Part no. GMC-32MM

Dimensions

mm [inches]



Note: Supplied with 4 screws, 4 washers

Male Rear Clevis Dimension Table							
Part #	*A*	*B*	*C*	*D*	*E*	*F*	*G*
GMC-32MM	26.00 [1.02]	22.00 [0.86]	10.00 [0.39]	12.00 [0.47]	11.00 [0.43]	33.00 [1.29]	45.00 [1.77]
GMC-40MM	28.00 [1.10]	25.00 [0.98]	12.00 [0.47]	15.00 [0.59]	13.00 [0.51]	38.00 [1.49]	52.00 [2.04]
GMC-50MM	32.00 [1.25]	27.00 [1.06]	12.00 [0.47]	15.00 [0.59]	13.00 [0.51]	40.00 [1.57]	65.00 [2.55]
GMC-63MM	40.00 [1.57]	32.00 [1.25]	16.00 [0.62]	20.00 [0.78]	17.00 [0.66]	49.00 [1.92]	75.00 [2.95]
GMC-80MM	50.00 [1.96]	36.00 [1.41]	16.00 [0.62]	20.00 [0.78]	17.00 [0.66]	53.00 [2.08]	95.00 [3.74]
GMC-100MM	60.00 [2.36]	41.00 [1.61]	20.00 [0.78]	25.00 [0.98]	21.00 [0.82]	62.00 [2.44]	115.00 [4.52]

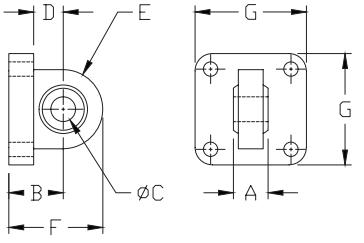
Spherical Rear Pivot



Part no. GSMC-32MM

Dimensions

mm [inches]



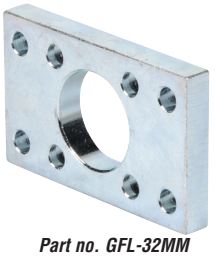
Note: Supplied with 4 screws, 4 washers

Spherical Male Clevis Dimension Table							
Part #	*A*	*B*	*C*	*D*	*E*	*F*	*G*
GSMC-32MM	14.00 [0.55]	22.00 [0.86]	10.00 [0.39]	12.00 [0.47]	16.00 [0.62]	38.00 [1.49]	45.00 [1.77]
GSMC-40MM	16.00 [0.62]	25.00 [0.98]	12.00 [0.47]	15.00 [0.59]	19.00 [0.74]	44.00 [1.73]	52.00 [2.04]
GSMC-50MM	16.00 [0.62]	27.00 [1.06]	12.00 [0.47]	15.00 [0.59]	19.00 [0.74]	46.00 [1.81]	65.00 [2.55]
GSMC-63MM	21.00 [0.82]	32.00 [1.25]	16.00 [0.62]	20.00 [0.78]	24.00 [0.94]	56.00 [2.20]	75.00 [2.95]
GSMC-80MM	21.00 [0.82]	36.00 [1.41]	16.00 [0.62]	20.00 [0.78]	24.00 [0.94]	60.00 [2.36]	95.00 [3.74]
GSMC-100MM	25.00 [0.98]	41.00 [1.61]	20.00 [0.78]	25.00 [0.98]	30.00 [1.18]	71.00 [2.79]	115.00 [4.52]

See our website www.AutomationDirect.com for complete Engineering drawings.

G-Series ISO Pneumatic Cylinders – Accessories

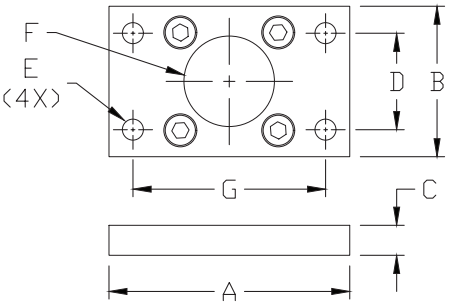
Front or Rear Flange



Part no. GFL-32MM

Dimensions

mm [inches]



Note: Supplied with 4 screws

Front or Rear Flange Dimension Table							
Part #	*A*	*B*	*C*	*D*	*E*	*F*	*G*
GFL-32MM	80.00 [3.14]	50.00 [1.96]	10.00 [0.39]	32.00 [1.25]	7.00 [1.25]	32.00 [1.25]	64.00 [2.52]
GFL-40MM	90.00 [3.54]	55.00 [2.16]	10.00 [0.39]	36.00 [1.41]	9.00 [0.35]	40.00 [1.57]	72.00 [2.83]
GFL-50MM	110.00 [4.33]	65.00 [2.55]	12.00 [0.47]	45.00 [1.77]	9.00 [0.35]	50.00 [1.96]	90.00 [3.54]
GFL-63MM	120.00 [4.72]	75.00 [2.95]	12.00 [0.47]	50.00 [1.96]	9.00 [0.35]	63.00 [2.48]	100.00 [3.93]
GFL-80MM	153.00 [6.02]	95.00 [3.74]	16.00 [0.62]	63.00 [2.48]	12.00 [0.47]	80.00 [3.14]	126.00 [4.96]
GFL-100MM	178.00 [7.00]	115.00 [4.52]	16.00 [0.62]	75.00 [2.95]	14.00 [0.55]	100.00 [3.93]	150.00 [5.90]

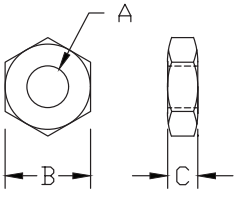
Rod Nut



Part no. GN-M20-15

Dimensions

mm [inches]

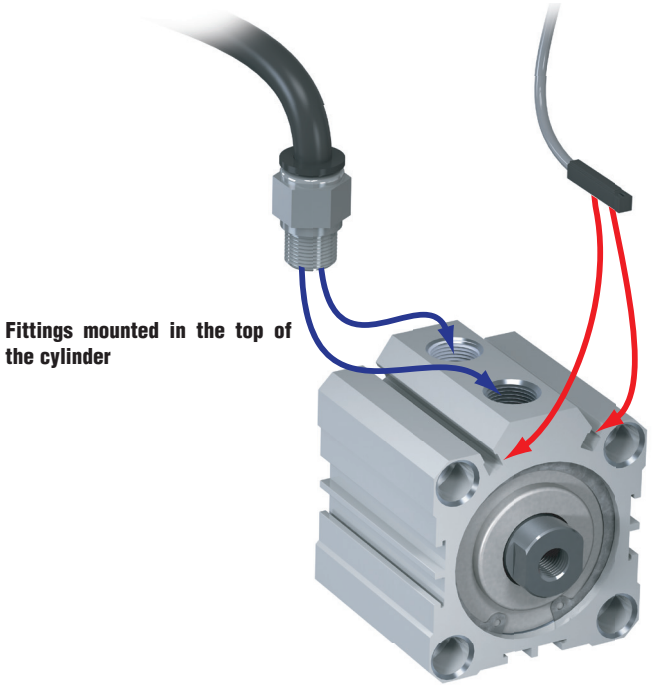


Rod Nut Dimension Table			
Part #	*A*	*B*	*C*
GN-M10-125	M10x1.25	17.00 [0.66]	6.00 [0.23]
GN-M12-125	M12x1.25	19.00 [0.74]	7.00 [0.27]
GN-M16-15	M16x1.5	24.00 [0.94]	8.00 [0.31]
GN-M20-15	M20x1.5	30.00 [1.18]	9.00 [0.35]

See our website www.AutomationDirect.com for complete Engineering drawings.

H-Series Pneumatic Cylinders

NITRA Pneumatic Compact Extruded Body Air Cylinders



The NITRA Pneumatics H-Series compact extruded body cylinders includes bore sizes from 12mm to 100mm and stroke lengths from 5mm to 100mm to meet a broad range of limited space applications. These high quality cylinders are constructed with hard anodized extruded aluminum bodies and end caps. Cylinder switch mounting slots are built in to the bodies. All sizes include a magnet in the piston and a chrome plated steel piston rod. Interchangeable with other common brands, these cylinders are factory lubricated for optimum performance and long, reliable life.

Features

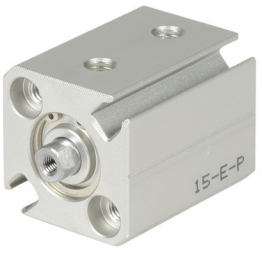
- Ten bore sizes
- Eight stroke lengths
- Interchangeable with other popular brands
- Work with 4mm square T-slot cylinder switches
- Nitrile / Buna-N O-rings

2 YEAR WARRANTY

H-Series Cylinder Specifications										
Bore Size (mm)	12	16	20	25	32	40	50	63	80	100
Action	Double acting									
Fluid	Air (clean/dry)									
Temperature Range	-4 to 176°F (-20 to 80°C)									
Pressure Range	14 to 145 psi (0.96 to 9.9 bar)									
Proof Pressure	215psi (14.8 bar)									
Lubrication	Not required									
Cushion Type	Bumper - Polyurethane (ø12 - ø25); Buna-N (ø32 - ø100)									
Speed Range	30 to 500 mm/s									
Stroke Tolerance	+1.0 / -0 mm									
Port Size	M5x0.8				1/8-NPT		1/4-NPT		3/8-NPT	
Extend Force @ 87psi (lbs.)	15	27	42	66	108	169	264	420	678	1059
Retract Force @ 87psi (lbs.)	11	20	32	51	81	142	222	378	611	950
Sensor Switch Compatibility	CPS9H Series Switches									

H-Series 12mm Pneumatic Cylinders

12mm Bore, Double Acting with Magnet



Part No. H12M005MD-M

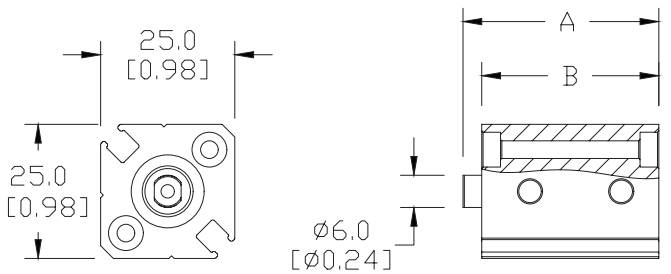
12mm Bore H-Series Cylinders - Double Acting w/ Magnet						
Part Number	*Stroke Length (mm)*	*"A" (mm [in])*	*"B" (mm [in])*	*Port Size*	*Weight (lbs)*	*Price*
H12M005MD-M	5	36.5 [1.44]	33.0 [1.30]	M5x0.8	0.1	$19.00
H12M010MD-M	10	41.5 [1.63]	38.0 [1.50]		0.2	$19.50
H12M015MD-M	15	46.5 [1.83]	43.0 [1.69]		0.2	$20.00
H12M020MD-M	20	51.5 [2.03]	48.0 [1.89]		0.2	$20.50
H12M025MD-M	25	56.5 [2.22]	53.0 [2.09]		0.2	$21.00
H12M030MD-M	30	61.5 [2.42]	58.0 [2.28]		0.2	$22.00
H12M040MD-M	40	71.5 [2.81]	68.0 [2.68]		0.3	$26.00
H12M050MD-M	50	81.5 [3.21]	78.0 [3.07]		0.7	$29.00

Mounting Accessories	
Rod Clevis	HRC-12M
Rod Male Adapter	HMA-12M
Female Rear Clevis	HFC-12M

Note: For full details see Accessories at the end of the section.

Dimensions

mm [inches]



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H-Series 16mm Pneumatic Cylinders

16mm Bore, Double Acting with Magnet



Part No. H16M005MD-M

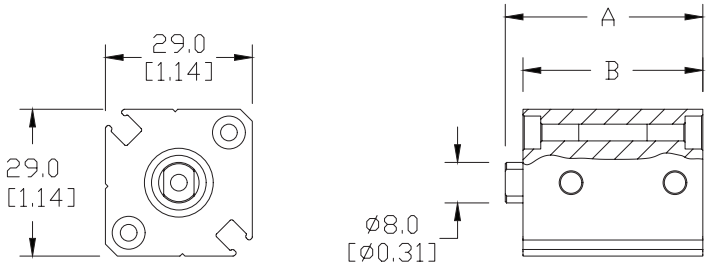
16mm Bore H-Series Cylinders - Double Acting w/ Magnet						
Part Number	*Stroke Length (mm)*	*"A" (mm [in])*	*"B" (mm [in])*	*Port Size*	*Weight (lbs)*	*Price*
H16M005MD-M	5	39.0 [1.54]	35.5 [1.40]	M5x0.8	0.2	$25.00
H16M010MD-M	10	44.0 [1.73]	40.5 [1.59]		0.2	$26.00
H16M015MD-M	15	49.0 [1.93]	45.5 [1.79]		0.2	$27.00
H16M020MD-M	20	54.0 [2.13]	50.5 [1.99]		0.3	$28.00
H16M025MD-M	25	59.0 [2.32]	55.5 [2.19]		0.3	$29.00
H16M030MD-M	30	64.0 [2.52]	60.5 [2.38]		0.3	$30.00
H16M040MD-M	40	74.0 [2.91]	70.5 [2.78]		0.4	$32.00
H16M050MD-M	50	84.0 [3.31]	80.5 [3.17]		0.4	$35.00

Mounting Accessories	
Rod Clevis	HRC-16M
Rod Male Adapter	HMA-16M
Female Rear Clevis	HFC-16M

Note: For full details see Accessories at the end of the section.

Dimensions

mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.

H-Series 20mm Pneumatic Cylinders

20mm Bore, Double Acting with Magnet



Part No. H20M005MD-M

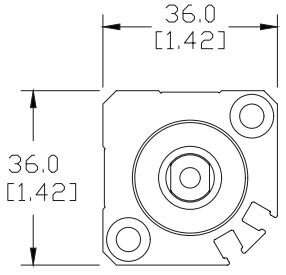
20mm Bore H-Series Cylinders - Double Acting w/ Magnet						
Part Number	**Stroke Length (mm)**	**"A" (mm [in])**	**"B" (mm [in])**	**Port Size**	**Weight (lbs)**	**Price**
H20M005MD-M	5	41.0 [1.61]	36.5 [1.44]	M5x0.8	0.3	$30.00
H20M010MD-M	10	46.0 [1.81]	41.5 [1.63]		0.3	$31.00
H20M015MD-M	15	51.0 [2.01]	46.5 [1.83]		0.4	$32.00
H20M020MD-M	20	56.0 [2.20]	51.5 [2.03]		0.4	$33.00
H20M025MD-M	25	61.0 [2.40]	56.5 [2.22]		0.4	$34.00
H20M030MD-M	30	66.0 [2.60]	61.5 [2.42]		0.4	$35.00
H20M040MD-M	40	76.0 [2.99]	71.5 [2.81]		0.4	$36.00
H20M050MD-M	50	86.0 [3.39]	81.5 [3.21]		0.5	$37.00
H20M075MD-M	75	111.0 [4.37]	106.5 [4.19]		0.7	$38.00
H20M100MD-M	100	136.0 [5.35]	131.5 [5.18]		0.7	$41.00

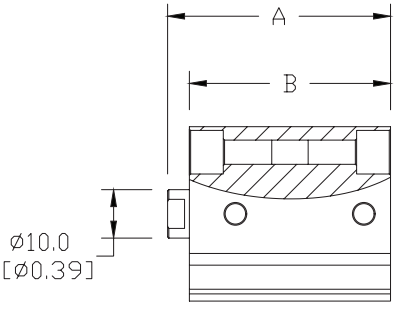
Mounting Accessories	
Rod Clevis	HRC-20M
Rod Male Adapter	HMA-20M
Female Rear Clevis	HFC-20M

Note: For full details see Accessories at the end of the section.

Dimensions

mm [inches]





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H-Series 25mm Pneumatic Cylinders

25mm Bore, Double Acting with Magnet



Part No. H25M005MD-M

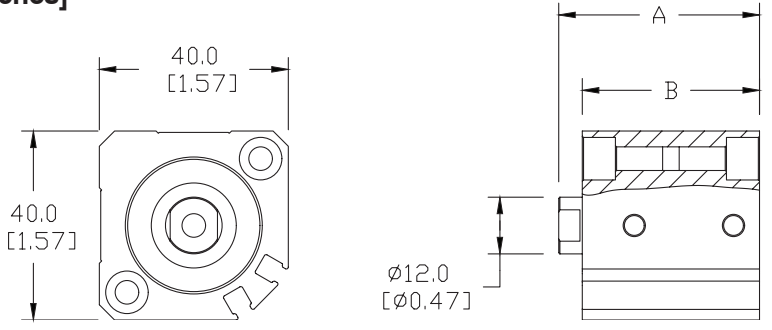
25mm Bore H-Series Cylinders - Double Acting w/ Magnet						
Part Number	*Stroke Length (mm)*	*"A" (mm [in])*	*"B" (mm [in])*	*Port Size*	*Weight (lbs)*	*Price*
H25M005MD-M	5	42.5 [1.67]	37.5 [1.48]	M5x0.8	0.4	$33.00
H25M010MD-M	10	47.5 [1.87]	42.5 [1.67]		0.4	$34.00
H25M015MD-M	15	52.5 [2.07]	47.5 [1.87]		0.4	$35.00
H25M020MD-M	20	57.5 [2.26]	52.5 [2.07]		0.4	$36.00
H25M025MD-M	25	62.5 [2.46]	57.5 [2.26]		0.5	$37.00
H25M030MD-M	30	67.5 [2.66]	62.5 [2.46]		0.5	$38.00
H25M040MD-M	40	77.5 [3.05]	72.5 [2.85]		0.6	$39.00
H25M050MD-M	50	87.5 [3.44]	82.5 [3.25]		0.7	$40.00
H25M075MD-M	75	112.5 [4.43]	107.5 [4.23]		0.9	$41.00
H25M100MD-M	100	137.5 [5.41]	132.5 [5.22]		1.1	$51.00

Mounting Accessories	
Rod Clevis	HRC-25M
Rod Male Adapter	HMA-25M
Female Rear Clevis	HFC-25M

Note: For full details see Accessories at the end of the section.

Dimensions

mm [inches]



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H-Series 32mm Pneumatic Cylinders

32mm Bore, Double Acting with Magnet



Part No. H32M005MD-M

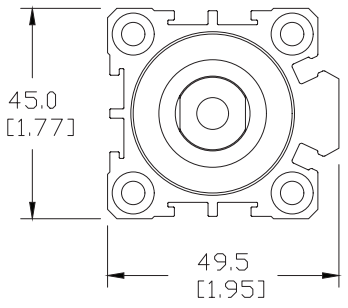
32mm Bore H-Series Cylinders - Double Acting w/ Magnet						
Part Number	*Stroke Length (mm)*	*"A" (mm [in])*	*"B" (mm [in])*	*Port Size*	*Weight (lbs)*	*Price*
H32M005MD-M	5	45.0 [1.77]	38.0 [1.50]	1/8-NPT	0.5	$40.00
H32M010MD-M	10	50.0 [1.97]	43.0 [1.69]		0.5	$41.00
H32M015MD-M	15	55.0 [2.17]	48.0 [1.89]		0.6	$42.00
H32M020MD-M	20	60.0 [2.36]	53.0 [2.09]		0.7	$43.00
H32M025MD-M	25	65.0 [2.56]	58.0 [2.28]		0.7	$44.00
H32M030MD-M	30	70.0 [2.76]	63.0 [2.48]		0.7	$45.00
H32M040MD-M	40	80.0 [3.15]	73.0 [2.87]		0.8	$46.00
H32M050MD-M	50	90.0 [3.54]	83.0 [3.27]		0.8	$47.00
H32M075MD-M	75	115.0 [4.53]	108.0 [4.25]		1.3	$51.00
H32M100MD-M	100	140.0 [5.51]	133.0 [5.24]		1.7	$55.00

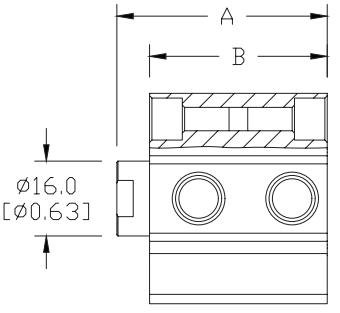
Mounting Accessories	
Rod Clevis	HRC-32M
Rod Male Adapter	HMA-32M
Female Rear Clevis	HFC-32M

Note: For full details see Accessories at the end of the section.

Dimensions

mm [inches]

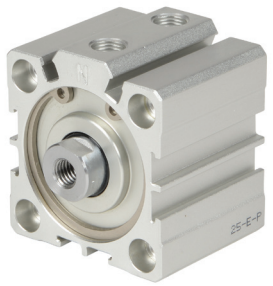




See our website www.AutomationDirect.com for complete Engineering drawings.

H-Series 40mm Pneumatic Cylinders

40mm Bore, Double Acting with Magnet



Part No. H40M005MD-M

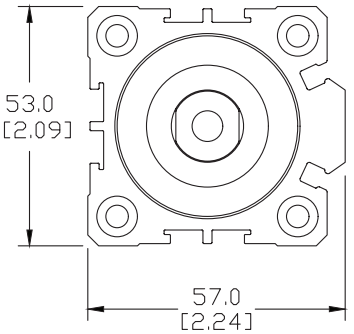
40mm Bore H-Series Cylinders - Double Acting w/ Magnet						
Part Number	*Stroke Length (mm)*	*"A" (mm [in])*	*"B" (mm [in])*	*Port Size*	*Weight (lbs)*	*Price*
H40M005MD-M	5	51.5 [2.03]	44.5 [1.75]	1/8-NPT	0.6	$46.00
H40M010MD-M	10	56.5 [2.22]	49.5 [1.95]		0.7	$47.00
H40M015MD-M	15	61.5 [2.42]	54.5 [2.15]		0.7	$48.00
H40M020MD-M	20	66.5 [2.62]	59.5 [2.34]		0.8	$49.00
H40M025MD-M	25	71.5 [2.81]	64.5 [2.54]		0.9	$50.00
H40M030MD-M	30	76.5 [3.01]	69.5 [2.74]		0.9	$51.00
H40M040MD-M	40	86.5 [3.41]	79.5 [3.13]		1.0	$52.00
H40M050MD-M	50	96.5 [3.80]	89.5 [3.52]		1.1	$54.00
H40M075MD-M	75	121.5 [4.78]	114.5 [4.51]		1.6	$57.00
H40M100MD-M	100	146.5 [5.77]	139.5 [5.49]		2.0	$60.00

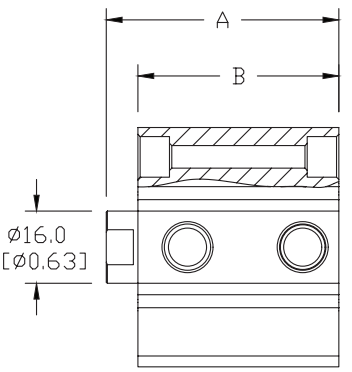
Mounting Accessories	
Rod Clevis	HRC-40M
Rod Male Adapter	HMA-40M
Female Rear Clevis	HFC-40M

Note: For full details see Accessories at the end of the section.

Dimensions

mm [inches]

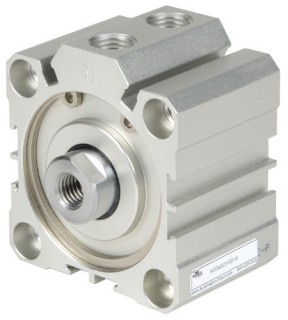




See our website www.AutomationDirect.com for complete Engineering drawings.

H-Series 50mm Pneumatic Cylinders

50mm Bore, Double Acting with Magnet



Part No. H50M005MD-M

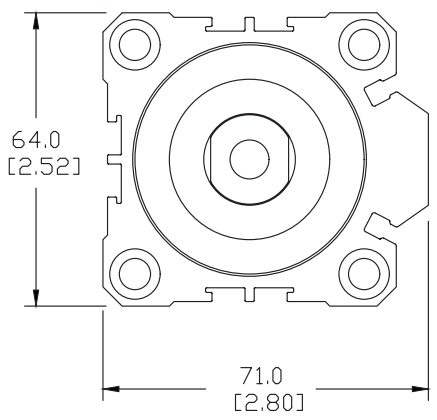
50mm Bore H-Series Cylinders - Double Acting w/ Magnet						
Part Number	*Stroke Length (mm)*	*"A" (mm [in])*	*"B" (mm [in])*	*Port Size*	*Weight (lbs)*	*Price*
H50M005MD-M	5	53.5 [2.11]	45.5 [1.79]	1/4-NPT	1.0	$55.00
H50M010MD-M	10	58.5 [2.30]	50.5 [1.99]		1.1	$56.00
H50M015MD-M	15	63.5 [2.50]	55.5 [2.19]		1.1	$57.00
H50M020MD-M	20	68.5 [2.70]	60.5 [2.38]		1.2	$58.00
H50M025MD-M	25	73.5 [2.89]	65.5 [2.58]		1.3	$59.00
H50M030MD-M	30	78.5 [3.09]	70.5 [2.78]		1.4	$60.00
H50M040MD-M	40	88.5 [3.48]	80.5 [3.17]		1.6	$62.00
H50M050MD-M	50	98.5 [3.88]	90.5 [3.56]		1.7	$64.00
H50M075MD-M	75	123.5 [4.86]	115.5 [4.55]		2.2	$70.00
H50M100MD-M	100	148.5 [5.85]	140.5 [5.53]		2.6	$75.00

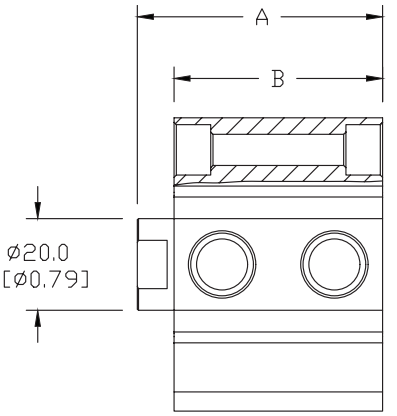
Mounting Accessories	
Rod Clevis	HRC-50M
Rod Male Adapter	HMA-50M
Female Rear Clevis	HFC-50M

Note: For full details see Accessories at the end of the section.

Dimensions

mm [inches]





See our website www.AutomationDirect.com for complete Engineering drawings.

H-Series 63mm Pneumatic Cylinders

63mm Bore, Double Acting with Magnet



Part No. H63M005MD-M

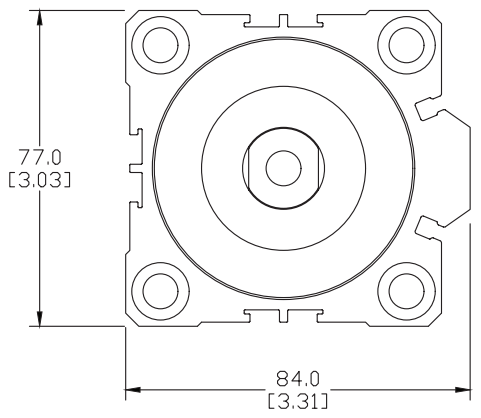
63mm Bore H-Series Cylinders - Double Acting w/ Magnet						
Part Number	*Stroke Length (mm)*	*"A" (mm [in])*	*"B" (mm [in])*	*Port Size*	*Weight (lbs)*	*Price*
H63M005MD-M	5	59.0 [2.32]	51.0 [2.01]	1/4-NPT	1.5	$64.00
H63M010MD-M	10	64.0 [2.52]	56.0 [2.20]		1.6	$66.00
H63M015MD-M	15	69.0 [2.72]	61.0 [2.40]		1.7	$68.00
H63M020MD-M	20	74.0 [2.91]	66.0 [2.60]		1.8	$70.00
H63M025MD-M	25	79.0 [3.11]	71.0 [2.80]		1.9	$72.00
H63M030MD-M	30	84.0 [3.31]	76.0 [2.99]		2.0	$74.00
H63M040MD-M	40	94.0 [3.70]	86.0 [3.39]		2.2	$76.00
H63M050MD-M	50	104.0 [4.09]	96.0 [3.78]		2.4	$78.00
H63M075MD-M	75	129.0 [5.08]	121.0 [4.76]		3.0	$80.00
H63M100MD-M	100	154.0 [6.06]	146.0 [5.75]		3.5	$85.00

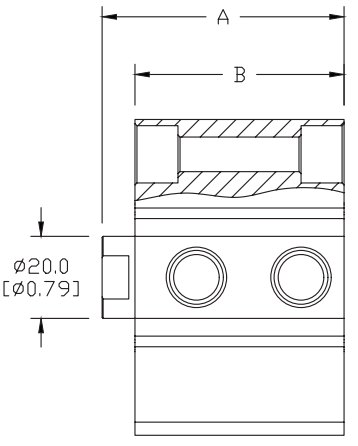
Mounting Accessories	
Rod Clevis	HRC-63M
Rod Male Adapter	HMA-63M
Female Rear Clevis	HFC-63M

Note: For full details see Accessories at the end of the section.

Dimensions

mm [inches]

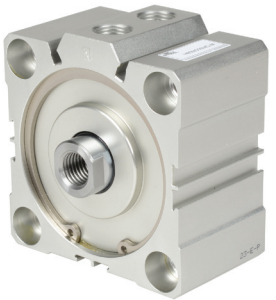




See our website www.AutomationDirect.com for complete Engineering drawings.

H-Series 80mm Pneumatic Cylinders

80mm Bore, Double Acting with Magnet



Part No. H80M005MD-M

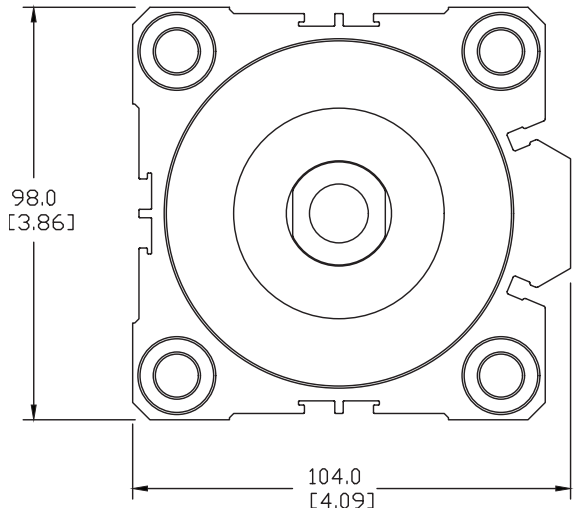
80mm Bore H-Series Cylinders - Double Acting w/ Magnet						
Part Number	*Stroke Length (mm)*	*"A" (mm [in])*	*"B" (mm [in])*	*Port Size*	*Weight (lbs)*	*Price*
H80M005MD-M	5	68.5 [2.70]	58.5 [2.30]	3/8-NPT	2.6	$80.00
H80M010MD-M	10	73.5 [2.89]	63.5 [2.50]		2.9	$82.00
H80M015MD-M	15	78.5 [3.09]	68.5 [2.70]		3.0	$84.00
H80M020MD-M	20	83.5 [3.29]	73.5 [2.89]		3.2	$86.00
H80M025MD-M	25	88.5 [3.48]	78.5 [3.09]		3.4	$88.00
H80M030MD-M	30	93.5 [3.68]	83.5 [3.29]		3.5	$90.00
H80M040MD-M	40	103.5 [4.07]	93.5 [3.68]		3.8	$92.00
H80M050MD-M	50	113.5 [4.47]	103.5 [4.07]		4.2	$94.00
H80M075MD-M	75	138.5 [5.45]	128.5 [5.06]		5.3	$98.00
H80M100MD-M	100	163.5 [6.44]	153.5 [6.04]		6.4	$104.00

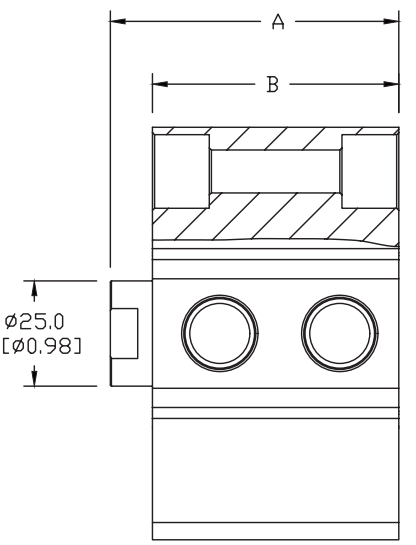
Mounting Accessories	
Rod Clevis	HRC-80M
Rod Male Adapter	HMA-80M
Female Rear Clevis	HFC-80M

Note: For full details see Accessories at the end of the section.

Dimensions

mm [inches]





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H-Series 100mm Pneumatic Cylinders

100mm Bore, Double Acting with Magnet



Part No. H100M005MD-M

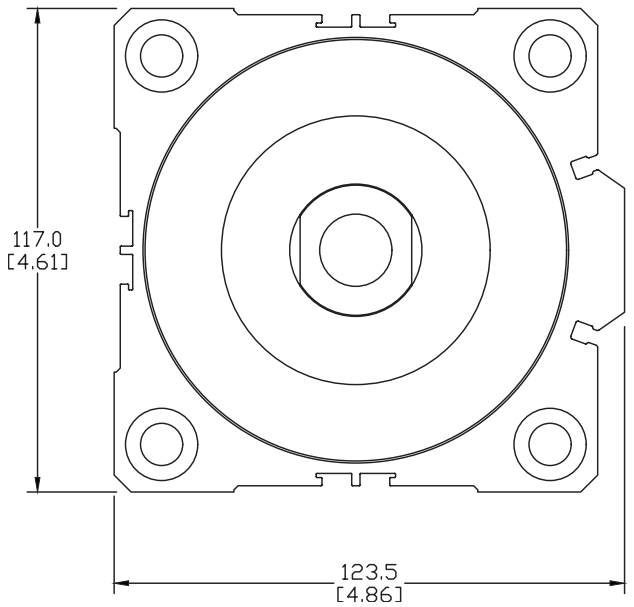
100mm Bore H-Series Cylinders - Double Acting w/ Magnet						
Part Number	*Stroke Length (mm)*	*"A" (mm [in])*	*"B" (mm [in])*	*Port Size*	*Weight (lbs)*	*Price*
H100M005MD-M	5	80.0 [3.15]	68.0 [2.68]	3/8-NPT	4.9	$104.00
H100M010MD-M	10	85.0 [3.35]	73.0 [2.87]		4.9	$115.00
H100M015MD-M	15	90.0 [3.54]	78.0 [3.07]		5.1	$119.00
H100M020MD-M	20	95.0 [3.74]	83.0 [3.27]		5.4	$123.00
H100M025MD-M	25	100.0 [3.94]	88.0 [3.46]		5.6	$127.00
H100M030MD-M	30	105.0 [4.13]	93.0 [3.66]		5.8	$131.00
H100M040MD-M	40	115.0 [4.53]	103.0 [4.06]		6.2	$135.00
H100M050MD-M	50	125.0 [4.92]	113.0 [4.45]		7.5	$139.00
H100M075MD-M	75	150.0 [5.91]	138.0 [5.43]		9.7	$143.00
H100M100MD-M	100	175.0 [6.89]	163.0 [6.42]		11.9	$147.00

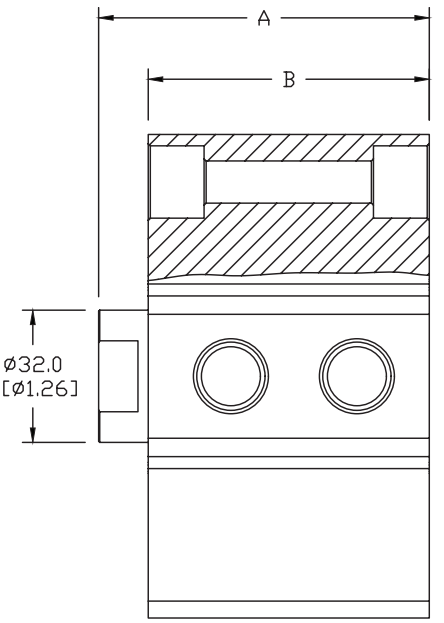
Mounting Accessories	
Rod Clevis	HRC-100M
Rod Male Adapter	HMA-100M
Female Rear Clevis	HFC-100M

Note: For full details see Accessories at the end of the section.

Dimensions

mm [inches]





See our website www.AutomationDirect.com for complete Engineering drawings.

H-Series Pneumatic Cylinder Accessories

H-Series Pneumatic Cylinder Accessories				
Part Number	**Description**	**Pcs/Pkg**	**Wt (lb)**	**Price**
HRC-12M	NITRA cylinder rod clevis, plated steel, M5 x 0.8 thread. For use with 12 mm H-series cylinders. Male adapter and hex nut included.	1	0.1	$8.00
HRC-16M	NITRA cylinder rod clevis, plated steel, M6 x 1.0 thread. For use with 16 mm H-series cylinders. Male adapter and hex nut included.	1	0.1	$8.50
HRC-20M	NITRA cylinder rod clevis, plated steel, M8 x 1.25 thread. For use with 20 mm H-series cylinders. Male adapter and hex nut included.	1	0.1	$8.75
HRC-25M	NITRA cylinder rod clevis, plated steel, M10 X 1.25 thread. For use with 25 mm H-series cylinders. Male adapter and hex nut included.	1	0.2	$9.00
HRC-32M	NITRA cylinder rod clevis, cast iron, M14 x 1.5 thread. For use with 32 mm H-series cylinders. Male adapter and hex nut included.	1	0.3	$9.25
HRC-40M	NITRA cylinder rod clevis, cast iron, M14 x 1.5 thread. For use with 40 mm H-series cylinders. Male adapter and hex nut included.	1	0.3	$9.50
HRC-50M	NITRA cylinder rod clevis, cast iron, M18 x 1.5 thread. For use with 50 mm H-series cylinders. Male adapter and hex nut included.	1	0.6	$10.00
HRC-63M	NITRA cylinder rod clevis, cast iron, M18 x 1.5 thread. For use with 63 mm H-series cylinders. Male adapter and hex nut included.	1	0.6	$11.00
HRC-80M	NITRA cylinder rod clevis, cast iron, M20 X 1.5 thread. For use with 80 mm H-series cylinders. Male adapter and hex nut included.	1	1.5	$15.00
HRC-100M	NITRA cylinder rod clevis, cast iron, M22 x 1.5 thread. For use with 100 mm H-series cylinders. Male adapter and hex nut included.	1	2.0	$19.00
HMA-12M	NITRA cylinder male adapter, stainless steel, M5 x 0.8 thread. For use with 12 mm H-series cylinders. Hex nut included.	1	0.1	$5.25
HMA-16M	NITRA cylinder male adapter, stainless steel, M6 x 1.0 thread. For use with 16 mm H-series cylinders. Hex nut included.	1	0.1	$5.25
HMA-20M	NITRA cylinder male adapter, stainless steel, M8 x 1.25 thread. For use with 20 mm H-series cylinders. Hex nut included.	1	0.1	$6.00
HMA-25M	NITRA cylinder male adapter, stainless steel, M10 X 1.25 thread. For use with 25 mm H-series cylinders. Hex nut included.	1	0.1	$6.00
HMA-32M	NITRA cylinder male adapter, stainless steel, M14 x 1.5 thread. For use with 32 mm H-series cylinders. Hex nut included.	1	0.1	$6.50
HMA-40M	NITRA cylinder male adapter, stainless steel, M14 x 1.5 thread. For use with 40 mm H-series cylinders. Hex nut included.	1	0.1	$6.50
HMA-50M	NITRA cylinder male adapter, stainless steel, M18 x 1.5 thread. For use with 50 mm H-series cylinders. Hex nut included.	1	0.2	$7.25
HMA-63M	NITRA cylinder male adapter, stainless steel, M18 x 1.5 thread. For use with 63 mm H-series cylinders. Hex nut included.	1	0.2	$7.25
HMA-80M	NITRA cylinder male adapter, stainless steel, M22 x 1.5 thread. For use with 80 mm H-series cylinders. Hex nut included.	1	0.4	$9.00
HMA-100M	NITRA cylinder male adapter, stainless steel, M26 x 1.5 thread. For use with 100 mm H-series cylinders. Hex nut included.	1	0.5	$10.00
HFC-12M	NITRA cylinder rear clevis bracket, aluminum. For use with 12 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.1	$8.00
HFC-16M	NITRA cylinder rear clevis bracket, aluminum. For use with 16 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.1	$8.50
HFC-20M	NITRA cylinder rear clevis bracket, aluminum. For use with 20 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.2	$9.00
HFC-25M	NITRA cylinder rear clevis bracket, aluminum. For use with 25 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.2	$11.00
HFC-32M	NITRA cylinder rear clevis bracket, cast iron. For use with 32 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.4	$12.50
HFC-40M	NITRA cylinder rear clevis bracket, cast iron. For use with 40 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.4	$12.50
HFC-50M	NITRA cylinder rear clevis bracket, cast iron. For use with 50 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.8	$17.00
HFC-63M	NITRA cylinder rear clevis bracket, cast iron. For use with 63 mm H-series cylinders. Mounting hardware and pivot pin included.	1	1.3	$17.00
HFC-80M	NITRA cylinder rear clevis bracket, cast iron. For use with 80 mm H-series cylinders. Mounting hardware and pivot pin included.	1	2.3	$23.00
HFC-100M	NITRA cylinder rear clevis bracket, cast iron. For use with 100 mm H-series cylinders. Mounting hardware and pivot pin included.	1	3.8	$25.00

H-Series Pneumatic Cylinder Accessories

Rod Clevis



Part no. HRC-20M

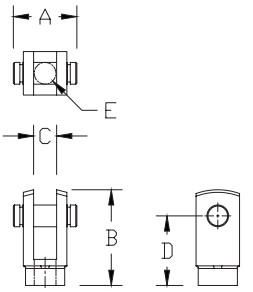


Part no. HRC-32M

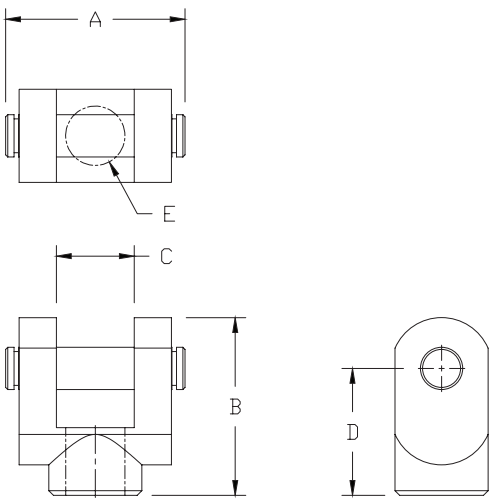
Note: Comes with Pivot Pin installed. Includes Rod Male Adapter (see below)

Dimensions

mm [inches]



HRC-12M - HRC-25M



HRC-32M - HRC-100M

Rod Clevis Dimension Table					
Part #	A	B	C	D	E
HRC-12M	14.6 [0.57]	22.0 [0.87]	5.3 [0.21]	16.0 [0.63]	M5x0.8
HRC-16M	16.8 [0.66]	28.0 [1.10]	6.6 [0.26]	21.0 [0.83]	M6x1.0
HRC-20M	21.0 [0.83]	34.0 [1.34]	8.3 [0.33]	25.0 [0.98]	M8x1.25
HRC-25M	26.4 [1.04]	41.0 [1.61]	10.3 [0.41]	30.0 [1.18]	M10x1.5
HRC-32M	42.4 [1.67]	42.0 [1.65]	18.4 [0.72]	30.0 [1.18]	M14x1.5
HRC-40M	42.4 [1.67]	42.0 [1.65]	18.4 [0.72]	30.0 [1.18]	M14x1.5
HRC-50M	50.4 [1.98]	56.0 [2.20]	22.4 [0.88]	40.0 [1.57]	M18x1.5
HRC-63M	50.4 [1.98]	56.0 [2.20]	22.4 [0.88]	40.0 [1.57]	M18x1.5
HRC-80M	63.6 [2.50]	71.0 [2.80]	28.4 [1.12]	50.0 [1.97]	M22x1.5
HRC-100M	72.6 [2.86]	79.0 [3.11]	32.4 [1.28]	55.0 [2.17]	M26x1.5

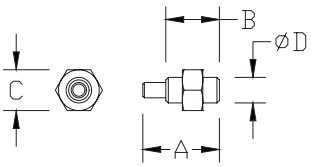
Rod Male Adapter



Part no. HMA-32M

Dimensions

mm [inches]



HMA-12M - HMA-100M

Rod Male Adapter Dimension Table				
Part #	A	B	C	D
HMA-12M	15.0 [0.59]	10.5 [0.41]	8.0 [0.31]	M5x0.8
HMA-16M	18.0 [0.71]	12.0 [0.47]	10.0 [0.39]	M6x1.0
HMA-20M	19.5 [0.77]	14.0 [0.55]	12.0 [0.47]	M8x1.25
HMA-25M	26.5 [1.04]	17.5 [0.69]	17.0 [0.67]	M10x1.5
HMA-32M	31.5 [1.24]	21.5 [0.85]	19.0 [0.75]	M14x1.5
HMA-40M	31.5 [1.24]	21.5 [0.85]	19.0 [0.75]	M14x1.5
HMA-50M	36.5 [1.44]	25.5 [1.00]	27.0 [1.06]	M18x1.5
HMA-63M	36.5 [1.44]	25.5 [1.00]	27.0 [1.06]	M18x1.5
HMA-80M	49.5 [1.95]	33.5 [1.32]	32.0 [1.26]	M22x1.5
HMA-100M	51.5 [2.03]	31.5 [1.24]	36.0 [1.42]	M26x1.5

See our website www.AutomationDirect.com for complete Engineering drawings.

H-Series Pneumatic Cylinder Accessories

Female Rear Clevis



Part no. HFC-20M

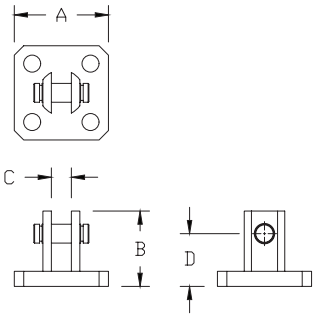


Part no. HFC-32M

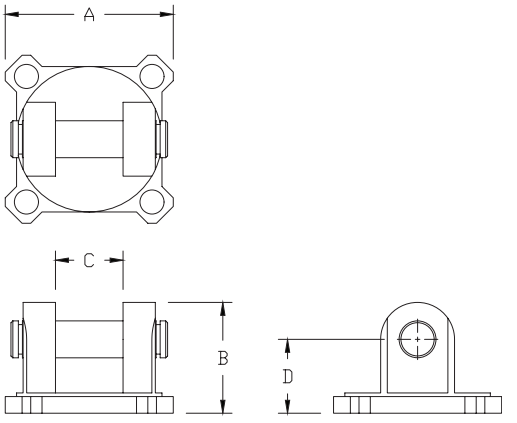
Note: Comes with Pivot Pin installed. Mounting Hardware Included.

Dimensions

mm [inches]



HFC-12M - HFC-25M



HFC-32M - HFC-100M

Female Rear Clevis Dimension Table

Part #	A	B	C	D
HFC-12M	25.0 [0.98]	20.0 [0.79]	5.3 [0.21]	14.0 [0.55]
HFC-16M	29.0 [1.14]	21.0 [0.83]	6.8 [0.27]	15.0 [0.59]
HFC-20M	36.0 [1.42]	27.0 [1.06]	8.3 [0.33]	18.0 [0.71]
HFC-25M	40.0 [1.57]	30.0 [1.18]	10.3 [0.41]	20.0 [0.79]
HFC-32M	45.5 [1.79]	30.0 [1.18]	18.3 [0.72]	20.0 [0.79]
HFC-40M	53.5 [2.11]	32.0 [1.26]	18.3 [0.72]	22.0 [0.87]
HFC-50M	64.5 [2.54]	42.0 [1.65]	22.3 [0.88]	28.0 [1.10]
HFC-63M	77.5 [3.05]	44.0 [1.73]	22.3 [0.88]	30.0 [1.18]
HFC-80M	98.5 [3.88]	56.0 [2.20]	28.3 [1.11]	38.0 [1.50]
HFC-100M	117.5 [4.63]	67.0 [2.64]	32.3 [1.27]	45.0 [1.77]

See our website www.AutomationDirect.com for complete Engineering drawings.

CPS Series Cylinder Position Switches

The NITRA CPS Series of cylinder position switches offers a robust, yet cost-effective, interface between pneumatic or hydraulic actuators and electrical control systems. Using state-of-the-art magnetic sensing technology, these switches are designed for use with cylinders that have a magnet incorporated in the cylinder piston. They can be used to provide cylinder position indication, cycle count, or to confirm operation.

NITRA cylinder position switches are now available in nine styles with accessories to fit many different styles of cylinders or actuators. The switches are designed for general purpose applications on most popular cylinder brands with sensor grooves, on round body cylinders using CPSB Series mounting bands or on tie rod cylinders using CPSA Series adapters. Harsh duty applications can use the CPSF Series switches with CPSS stainless steel mounting bands if needed.

NITRA cylinder position switches are available in 3-wire DC, PNP normally open, PNP normally closed, and NPN normally open electronic solid state configurations. Switches include integral cable with either an M8 or M12 wiring connector or wire leads. Integral LED indication provides switch status for speedy switch positioning and troubleshooting. Pre-tested for use with NITRA pneumatic cylinders, these switches are also suitable for use with other brands of cylinders with magnetic pistons.

Features

- Electronic switch output, PNP (normally open or normally closed) or NPN (normally open)
- Solid state reliability, no moving parts for longer life
- AMR sensing technology with small hysteresis for precise sensing
- GMR sensing technology for basic industrial applications
- Compact and easy to mount on round body, tie rod, and extruded body cylinders
- LED switch status indication
- Integral cable with M8 or M12 wiring connector or 2-meter wire leads
- Electronic switch performance at reed switch prices



CPSB Band Assembly



CPSA Adapter Assembly



E-series cylinder with switch

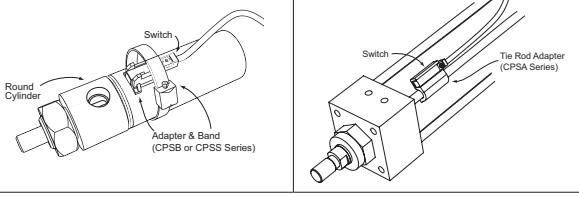
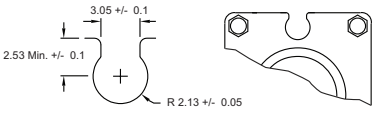
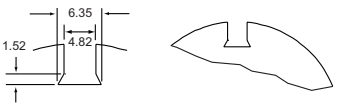
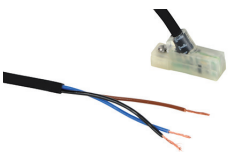
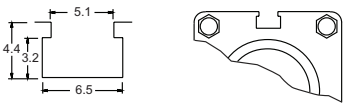
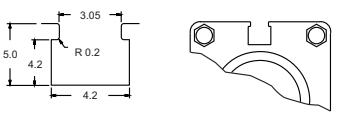
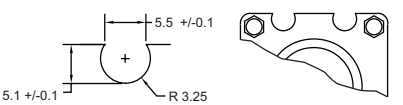
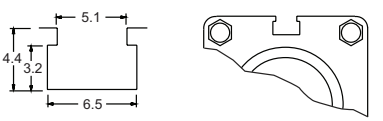
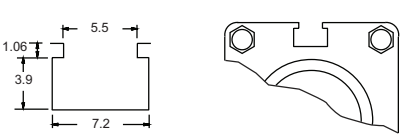
Technology Comparison

Reed Switch vs. AutomationDirect CPS Series Electronic Switch			
	Mechanical Reed Switch	***AutomationDirect CPS Series Electronic Switch***	***Details***
Durability	low (1-2 million cycles typical)	high (virtually unlimited number of cycles)	Reed switchs can stick, break, bounce and are prone to wear
Repeatability	low	high	Mechanical wear of reed switches can lead to switch point drift
Response time	low	high	Reed switches have a slower response time than electronic switches, resulting in lower switch accuracy
Sensitivity to magnetic fields	low	high	Electronic sensors, more sensitive than reed switches, operate reliably even with weak magnetic fields
Temperature stability	high	high	Both switch technologies are extremely stable over the entire temperature range
Longevity	low	high	Electronic sensors are insensitive to long term effects of magnetic fields. Reed switches can become permanently magnetized over time.
Response sensitivity	medium	high	Electronic sensors have small hysteresis and are exceptional for short stroke cylinders
Price	low	low	Reed switches are usually much less expensive than electronic switches. The AutomationDirect CPS Series offers all the advantages of an electronic cylinder position switch at reed switch prices.

AMR vs. GMR Technology

Two solid state magnetic sensing technologies used for pneumatic cylinder position are GMR (Giant Magnetoresistive) and AMR (Anisotropic Magnetoresistive). Both sensing technologies consist of layers of ferromagnetic material that change in electrical resistance when exposed to an external magnetic field. AMR based switches have a higher sensitivity and narrower sensing field compared to less expensive GMR based switches. AMR switches are a better choice for cylinders with short strokes.

CPS Series Cylinder Position Switches

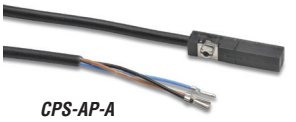
Position Switch Cross Reference Chart			
NITRA Switch Type	***Cylinder Brand (may fit some of these cylinders)***	***Photo Example***	***Groove Illustration***
CPS CPSF	NITRA A-Series, D-Series, F-Series		
CPS9C	DE-STA-CO Robohand SMC Compact Air		
CPS9D	Fabco Numatics Rotomation		
CPS9F	NITRA G-Series Fabco Festo Numatics Rotomation		
CPS9H	NITRA E-Series NITRA H-Series		
CPS9M	Norgren		
CPS9Q	NITRA G-Series Parker		
CPS9T	SMC		

CPS Series Cylinder Position Switches

NITRA CPS Series cylinder position switches use AMR sensing technology for use with cylinders having a magnetic piston. The switches are deisigned to mount on cylinders with a 5mm square T-slot channel. Using CPSA adapters or CPSB mounting bands, they can be used with tie rod or round body style cylinders. 3-year warranty.



CPS-AP-F



CPS-AP-A

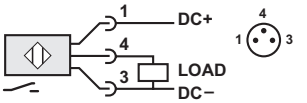


Switches include switch stop and wire retainer for T-slot mounting

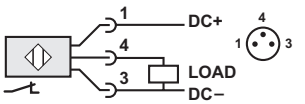
NITRA CPS Series Cylinder Position Switches			
Part No.	**Description**	**Price**	**Weight (lbs)**
CPS-AP-F	Magnetic cylinder switch for position sensing of pneumatic or hydraulic cylinders, normally open, 3-wire, 10-30 VDC, electronic PNP transistor output, status LED, 0.3 meter (1 ft) cable with M8 snap-fit connector. Can be mounted on cylinders with T-slots or round body cylinders using a CPSB series mounting band or on tie rod cylinders using a CPSA series rod adapter.	$20.00	0.1
CPS-CP-F	Magnetic cylinder switch for position sensing of pneumatic or hydraulic cylinders, normally closed, 3-wire, 10-30 VDC, electronic PNP transistor output, status LED, 0.3 meter (1 ft) cable with M8 snap-fit connector. Can be mounted on cylinders with T-slots or round body cylinders using a CPSB series mounting band or on tie rod cylinders using a CPSA series rod adapter.	$20.00	0.1
CPS-AN-F	Magnetic cylinder switch for position sensing of pneumatic or hydraulic cylinders, normally open, 3-wire, 10-30 VDC, electronic NPN transistor output, status LED, 0.3 meter (1 ft) cable with M8 snap-fit connector. Can be mounted on cylinders with T-slots or round body cylinders using a CPSB series mounting band or on tie rod cylinders using a CPSA series rod adapter.	$20.00	0.1
CPS-AP-A	Magnetic cylinder switch for position sensing of pneumatic or hydraulic cylinders, normally open, 3-wire, 10-30 VDC, electronic PNP transistor output, status LED, 2 meter (6.56 ft) cable with wire leads. Can be mounted on cylinders with T-slots or round body cylinders using a CPSB series mounting band or on tie rod cylinders using a CPSA series rod adapter.	$19.00	0.1
CPS-CP-A	Magnetic cylinder switch for position sensing of pneumatic or hydraulic cylinders, normally closed, 3-wire, 10-30 VDC, electronic PNP transistor output, status LED, 2 meter (6.56 ft) cable with wire leads. Can be mounted on cylinders with T-slots or round body cylinders using a CPSB series mounting band or on tie rod cylinders using a CPSA series rod adapter.	$19.00	0.1
CPS-AN-A	Magnetic cylinder switch for position sensing of pneumatic or hydraulic cylinders, normally open, 3-wire, 10-30 VDC, electronic NPN transistor output, status LED, 2 meter (6.56 ft) cable with wire leads. Can be mounted on cylinders with T-slots or round body cylinders using a CPSB series mounting band or on tie rod cylinders using a CPSA series rod adapter.	$19.00	0.1

NITRA CPS Series Cylinder Switch Specifications	
Operating Voltage	10-30 VDC
Voltage Drop	< 2.5 V
Current Rating	100 mA (built-in overload protection)
Short Circuit Protection	Yes
Reverse Polarity Protection	Yes
Overload Protection	Yes
Leakage Current	none
Sensing Technology	AMR
Hysteresis	< 1 mm
Function Display	Switching status yellow
Switching Frequency	> 6,000 Hz for 3-wire
Magnetic Sensitivity	2 millitesla (20 gauss)
Housing Materials	polyamide and stainless steel
Operating Temperature	-13°F to 185°F (-25°C to 85°C)
Protection Rating	IP 67
Agency Approvals	CE, cULus (Class 2 source required), file E328811

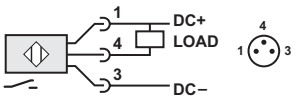
Wiring



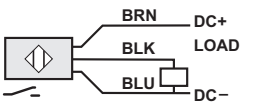
CPS-AP-F



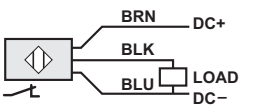
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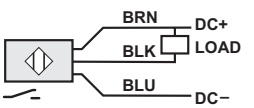
CPS-AN-F



CPS-AP-A



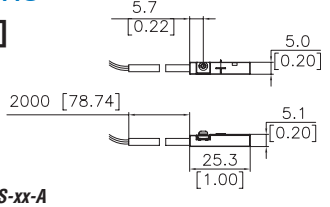
CPS-CP-A



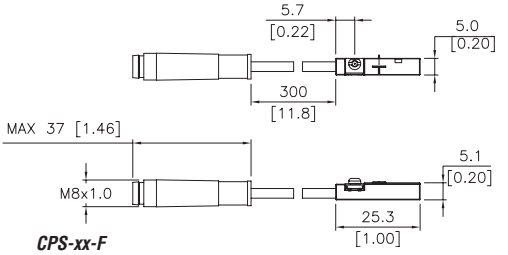
CPS-AN-A

Dimensions

mm [inches]



CPS-xx-A



CPS-xx-F

CPSF Series Cylinder Position Switches

NITRA CPSF Series cylinder position switches are designed for food and beverage or washdown applications. The switches are designed to mount on cylinders with a 5mm square T-slot channel. Using CPSA adapters or CPSS all stainless steel mounting bands, they can be used with tie rod or round body style cylinders. 3-year warranty.



CPSF-AP-H

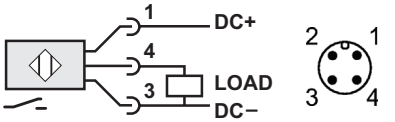


CPSF-AP-A

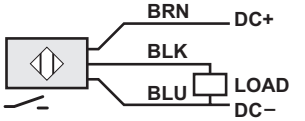


NITRA CPSF Series Cylinder Position Switches			
Part No.	**Description**	**Price**	**Weight (lbs)**
CPSF-AP-H	Magnetic cylinder switch for position sensing of pneumatic or hydraulic cylinders, IP69K, normally open, 3-wire, 10-30 VDC, electronic PNP transistor output, status LED, 0.3 meter (1 ft) cable with M12 connector. Can be mounted on cylinders with T-slots or round body cylinders using a CPSS series mounting band or on tie rod cylinders using a CPSA series rod adapter.	$24.00	0.1
CPSF-AP-A	Magnetic cylinder switch for position sensing of pneumatic or hydraulic cylinders, IP69K, normally open, 3-wire, 10-30 VDC, electronic PNP transistor output, status LED, 2 meter (6.56 ft) cable with wire leads. Can be mounted on cylinders with T-slots or round body cylinders using a CPSS series mounting band or on tie rod cylinders using a CPSA series rod adapter.	$22.00	0.1

Wiring



CPSF-AP-H

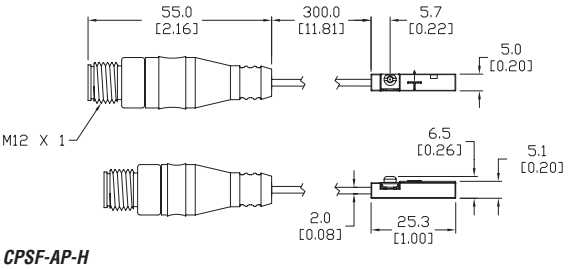


CPSF-AP-A

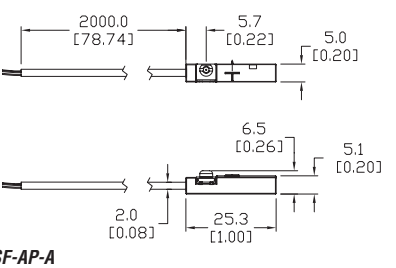
NITRA CPSF Cylinder Switch Specifications	
Operating Voltage	10-30 VDC
Voltage Drop	< 2.5 V
Current Rating	100 mA (built-in overload protection)
Short Circuit Protection	Yes
Reverse Polarity Protection	Yes
Overload Protection	Yes
Leakage Current	none
Sensing Technology	AMR
Hysteresis	< 1 mm
Function Display	Switching status yellow
Switching Frequency	> 6,000 Hz for 3-wire
Magnetic Sensitivity	2 millitesla (20 gauss)
Housing Materials	polyamide and stainless steel
Operating Temperature	-13°F to 185°F (-25°C to 85°C)
Protection Rating	IP 69K
Agency Approvals	CE, cULus (Class 2 source required), file E328811

Dimensions

mm [inches]



CPSF-AP-H

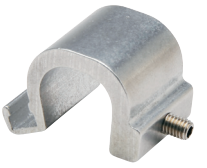


CPSF-AP-A

CPSA Series Cylinder Position Switches – Mounting Adapter

NITRA CPSA Series mounting adapters are made of extruded aluminum. They are used to mount CPS or CPSF series T-slot switches to tie rod style cylinders. They come in five sizes to fit tie rods from 1/8 inch [3mm] to 3/4 inch [20mm] diameter.

NITRA Cylinder Switch Mounting Adapters			
Part No.	***Description***	***Price***	***Weight (lbs)***
CPSA-03	Adapter bracket to secure a T-slot cylinder position switch to a 1/8 to 3/16 inch (3 to 5 mm) diameter tie rod	$5.50	0.1
CPSA-04	Adapter bracket to secure a T-slot cylinder position switch to a 3/16 to 1/4 inch (5 to 7mm) diameter tie rod	$5.50	0.1
CPSA-07	Adapter bracket to secure a T-slot cylinder position switch to a 3/16 to 7/16 inch (5 to 11 mm) diameter tie rod	$5.50	0.1
CPSA-09	Adapter bracket to secure a T-slot cylinder position switch to a 3/8 to 9/16 inch (9 to 15 mm) diameter tie rod	$5.50	0.1
CPSA-12	Adapter bracket to secure a T-slot cylinder position switch to a 9/16 to 3/4 inch (14 to 20 mm) diameter tie rod	$6.50	0.1

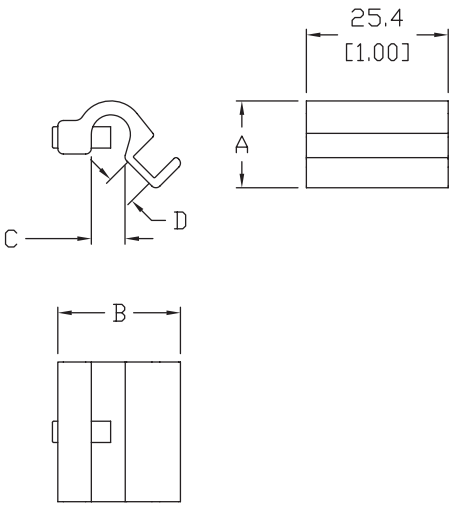




Assembly photo shows CPSA mounting adapter with T-slot cylinder position switch.

Dimensions

mm [inches]



CYLINDER POSITION SWITCHES				
	DIM A	DIM B	DIM C	DIM D
CPSA-03	15.5 [0.61]	22.0 [.086]	6.0 [0.24]	5.4 [0.21]
CPSA-04	18.5 [0.73]	24.5 [0.96]	7.5 [0.30]	5.5 [0.22]
CPSA-07	22.8 [0.90]	30.2 [1.19]	11.3 [0.44]	6.6 [0.26]
CPSA-09	25.9 [1.02]	34.2 [1.35]	15.3 [0.60]	6.6 [0.26]
CPSA-12	31.1 [1.22]	39.6 [1.56]	20.3 [0.80]	6.6 [0.26]

CPSA-XX

Cylinder Switch Mounting Adapter Selector*			
Nitra Cylinder Bore Size	***CPSA-04***	***CPSA-07***	***CPSA-09***
1-1/2"	✔	✔	
2"		✔	
2-1/2"		✔	
3-1/4"		✔	✔
4"		✔	✔

**** CPSA-03 and CPSA-12 mounting adapters are for cylinder sizes that are not currently available.***

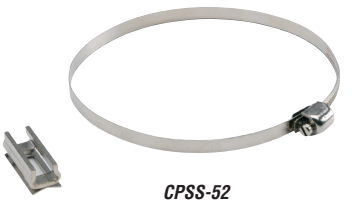
CPSB and CPSS Series Cylinder Position Switches - Mounting Bands

NITRA Cylinder Switch SS Mounting Bands with Plastic Caps			
Part No.	**Description**	**Price**	**Weight (lbs)**
CPSB-07	Mounting band to secure a T-slot cylinder position switch to a 5/16 to 1/2 inch (8, 10, 12 mm) bore round body cylinder.	$2.50	0.1
CPSB-14	Mounting band to secure a T-slot cylinder position switch to a 9/16 to 7/8 inch (16 & 20 mm) bore round body cylinder.	$2.75	0.1
CPSB-20	Mounting band to secure a T-slot cylinder position switch to a 1-1/16 to 1-1/4 inch (25 & 32 mm) bore round body cylinder.	$3.00	0.1
CPSB-24	Mounting band to secure a T-slot cylinder position switch to a 1-1/2 inch (40 mm) bore round body cylinder.	$3.25	0.1
CPSB-32	Mounting band to secure a T-slot cylinder position switch to a 1-3/4 to 2 inch (50 mm) bore round body cylinder.	$3.50	0.1
CPSB-40	Mounting band to secure a T-slot cylinder position switch to a 2-1/2 inch (63 mm) bore round body cylinder	$3.75	0.1
CPSB-52	Mounting band to secure a T-slot cylinder position switch to a 3 inch (80 mm) bore round body cylinder	$4.00	0.1
CPSB-64	Mounting band to secure a T-slot cylinder position switch to a 4 inch (100 mm) bore round body cylinder	$4.25	0.1



CPSB-20

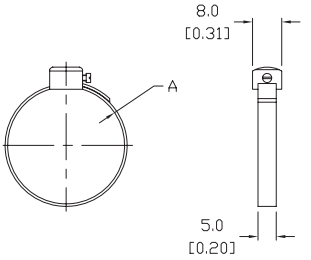
NITRA Cylinder Switch All Stainless Steel Mounting Bands			
Part No.	**Description**	**Price**	**Weight (lbs)**
CPSS-07	Stainless steel mounting band to secure a T-slot cylinder position switch to a 7/16 to 9/16 inch (10 to 16 mm) bore round body cylinder	$5.00	0.1
CPSS-14	Stainless steel mounting band to secure a T-slot cylinder position switch to a 7/8 to 1-1/16 inch (20 to 25 mm) bore round body cylinder	$5.25	0.1
CPSS-20	Stainless steel mounting band to secure a T-slot cylinder position switch to a 1-1/4 inch (32 mm) bore round body cylinder	$5.50	0.1
CPSS-24	Stainless steel mounting band to secure a T-slot cylinder position switch to a 1-1/2 inch (40 mm) bore round body cylinder	$5.75	0.1
CPSS-32	Stainless steel mounting band to secure a T-slot cylinder position switch to a 1-3/4 to 2 inch (50 mm) bore round body cylinder	$6.00	0.1
CPSS-40	Stainless steel mounting band to secure a T-slot cylinder position switch to a 2-1/2 inch (63 mm) bore round body cylinder	$6.25	0.1
CPSS-52	Stainless steel mounting band to secure a T-slot cylinder position switch to a 3 inch (80 mm) bore round body cylinder	$6.50	0.1
CPSS-64	Stainless steel mounting band to secure a T-slot cylinder position switch to a 4 inch (100 mm) bore round body cylinder	$6.75	0.1



CPSS-52

Dimensions

mm [inches]



CYLINDER POSITION SWITCHES			
PART #	DIM A	PART #	DIM A
CPSX-07	ø11.0–ø19.0 [ø0.43–ø0.75]	CPSX-32	ø48.0–ø59.0 [ø1.89–ø2.32]
CPSX-14	ø18.0–ø29.0 [ø0.71–ø1.14]	CPSX-40	ø58.0–ø69.0 [ø2.28–ø2.72]
CPSX-20	ø28.0–ø39.0 [ø1.10–ø1.54]	CPSX-52	ø78.0–ø89.0 [ø3.07–ø3.50]
CPSX-24	ø38.0–ø49.0 [ø1.50–ø1.93]	CPSX-64	ø98.0–ø109.0 [ø3.86–ø4.29]

CPSX-XX

CPS9C Series Cylinder Position Switches

NITRA CPS9C Series cylinder position switches are general purpose switches for use with cylinders having a magnetic piston. The switches are designed to mount on cylinders with 4mm round slots. Position is fixed by using the supplied screw that is embedded in the switch body.



CPS9C-AP-A



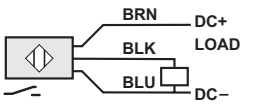
CPS9C-AP-F



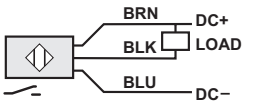
NITRA CPS9C Series Cylinder Position Switches			
Part No.	***Description***	***Price***	***Weight (lbs)***
CPS9C-AP-A	Pneumatic cylinder switch, for position sensing, magnetic, round, normally open, 3-wire, 5-28 VDC, electronic PNP transistor output, status LED, 9.8 ft. (3.0m) cable with wire leads. Can be mounted on cylinders with 4mm round slots.	$14.00	0.2
CPS9C-AN-A	Pneumatic cylinder switch, for position sensing, magnetic, round, normally open, 3-wire, 5-28 VDC, electronic NPN transistor output, status LED, 9.8 ft. (3.0m) cable with wire leads. Can be mounted on cylinders with 4mm round slots.	$14.00	0.2
CPS9C-AP-F	Pneumatic cylinder switch, for position sensing, magnetic, round, normally open, 3-wire, 5-28 VDC, electronic PNP transistor output, status LED, 0.5 ft. (0.15m) cable with M8 snap-fit connector. Can be mounted on cylinders with 4mm round slots.	$14.00	0.2
CPS9C-AN-F	Pneumatic cylinder switch, for position sensing, magnetic, round, normally open, 3-wire, 5-28 VDC, electronic NPN transistor output, status LED, 0.5 ft. (0.15m) cable with M8 snap-fit connector. Can be mounted on cylinders with 4mm round slots.	$14.00	0.2

NITRA CPS9C Series Cylinder Switch Specifications	
Operating Voltage	5-28 VDC
Voltage Drop	0.5 V @ 200 mA
Current Rating	0.2 Amps Max.
Switching Power	4.8 watts Max.
Short Circuit Protection	No
Reverse Polarity Protection	Yes
Overload Protection	No
Leakage Current	< 0.01 mA
Sensing Technology	GMR
Off Delay Time	150-200 ms
Function Display	PNP switching status green / NPN switching status red
Switching Frequency	< 1000 Hz
Magnetic Sensitivity	4 millitesla (40 gauss)
Housing Materials	ABS
Operating Temperature	-14°F to 158°F (-10°C to 70°C)
Protection Rating	NEMA 6 / IP 67
Agency Approvals	CE, RoHS, REACH

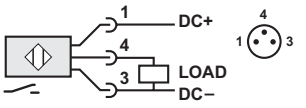
Wiring



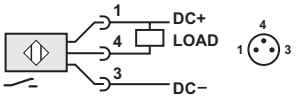
CPS9C-AP-A



CPS9C-AN-A



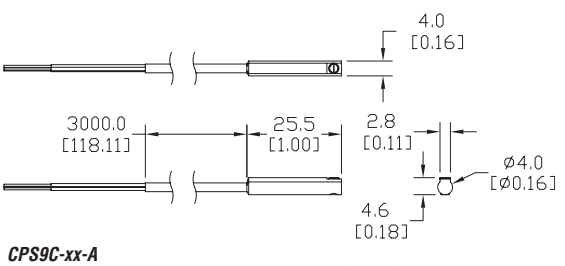
CPS9C-AP-F



CPS9C-AN-F

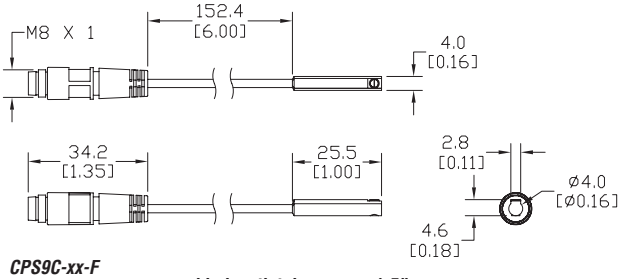
Dimensions

mm [inches]



CPS9C-xx-A

wire length tolerance +12" / - 0"

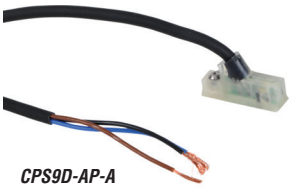


CPS9C-xx-F

cable length tolerance ± 1.5"

CPS9D Series Cylinder Position Switches

NITRA CPS9D Series cylinder position switches are general purpose switches for use with cylinders having a magnetic piston. The switches are designed to mount on cylinders with 1/4 inch 60 degree dovetail slots. The switches can be used with the CPS9D series dovetail adapters for mounting.



CPS9D-AP-A



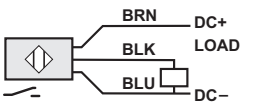
CPS9D-AP-F



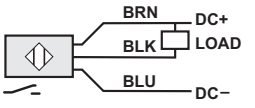
NITRA CPS9D Series Cylinder Position Switches			
Part No.	***Description***	***Price***	***Weight (lbs)***
CPS9D-AP-A	Pneumatic cylinder switch, for position sensing, magnetic, dovetail, normally open, 3-wire, 5-28 VDC, electronic PNP transistor output, status LED, 9.8 ft. (3.0m) cable with wire leads. Can be mounted on cylinders with 1/4 inch 60 degree dovetail slots or other dovetail grooves using CPS9D-D adapters.	$11.50	0.2
CPS9D-AN-A	Pneumatic cylinder switch, for position sensing, magnetic, dovetail, normally open, 3-wire, 5-28 VDC, electronic NPN transistor output, status LED, 9.8 ft. (3.0m) cable with wire leads. Can be mounted on cylinders with 1/4 inch 60 degree dovetail slots or other dovetail grooves using CPS9D-D adapters.	$11.50	0.2
CPS9D-AP-F	Pneumatic cylinder switch, for position sensing, magnetic, dovetail, normally open, 3-wire, 5-28 VDC, electronic PNP transistor output, status LED, 0.5 ft. (0.15m) cable with M8 snap-fit connector. Can be mounted on cylinders with 1/4 inch 60 degree dovetail slots or other dovetail grooves using CPS9D-D adapters.	$11.50	0.2
CPS9D-AN-F	Pneumatic cylinder switch, for position sensing, magnetic, dovetail, normally open, 3-wire, 5-28 VDC, electronic NPN transistor output, status LED, 0.5 ft. (0.15m) cable with M8 snap-fit connector. Can be mounted on cylinders with 1/4 inch 60 degree dovetail slots or other dovetail grooves using CPS9D-D adapters.	$11.50	0.2

NITRA CPS9D Series Cylinder Switch Specifications	
Operating Voltage	5-28 VDC
Voltage Drop	1.0 V
Current Rating	0.2 Amps Max.
Switching Power	4.8 watts Max.
Switching Speed	4µs operate / 4µs release
Short Circuit Protection	No
Reverse Polarity Protection	Yes
Overload Protection	No
Leakage Current	< 0.01 mA
Sensing Technology	GMR
Off Delay Time	150-200 ms
Function Display	PNP switching status yellow / NPN switching status red
Switching Frequency	< 1000 Hz
Magnetic Sensitivity	2.5 millitesla (25 gauss)
Housing Materials	Zytel
Operating Temperature	-4°F to 176°F (-20°C to 80°C)
Protection Rating	NEMA 6 / IP 67
Agency Approvals	CE, RoHS, REACH

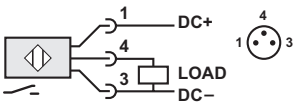
Wiring



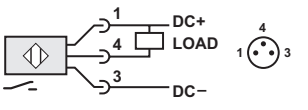
CPS9D-AP-A



CPS9D-AN-A



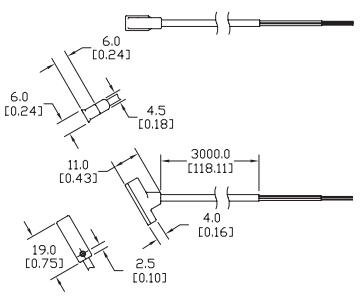
CPS9D-AP-F



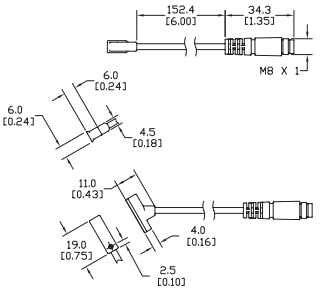
CPS9D-AN-F

Dimensions

mm [inches]



CPS9D-xx-A *wire length tolerance +12" / - 0"*



CPS9D-xx-F *cable length tolerance ± 1.5"*

CPS9D Series Cylinder Position Switch – Accessories

Accessories



CPS9D-D12M



CPS9D-D14M



CPS9D-D38

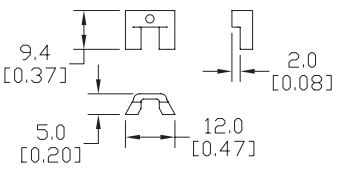


Photo example shows a CPS9D switch mounted in a dovetail groove adapter.

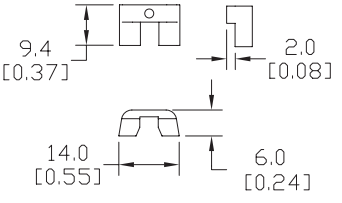
NITRA CPS9D Series Cylinder Position Switch Accessories			
Part No.	***Description***	***Price***	***Weight (lbs)***
CPS9D-D12M	Dovetail groove adapter, mounts a CPS9D cylinder position switch in a 12mm 60 degree dovetail slot	$1.75	0.2
CPS9D-D14M	Dovetail groove adapter, mounts a CPS9D cylinder position switch in a 14mm 60 degree dovetail slot	$1.50	0.2
CPS9D-D38	Dovetail groove adapter, mounts a CPS9D cylinder position switch in a 3/8 inch 60 degree dovetail slot	$1.50	0.2

Dimensions

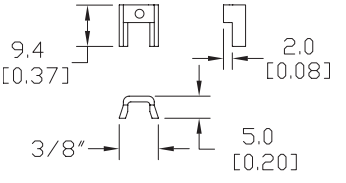
mm [inches]



CPS9D-D12M



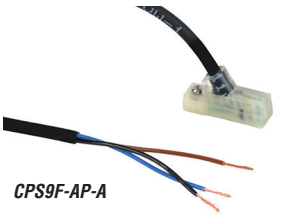
CPS9D-D14M



CPS9D-D38

CPS9F Series Cylinder Position Switches

NITRA CPS9F Series cylinder position switches are general purpose switches for use with cylinders having a magnetic piston. The switches are designed to mount on cylinders with 6.5 x 3.2 mm T-slots.



CPS9F-AP-A

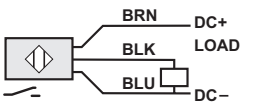


CPS9F-AP-F

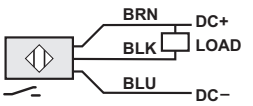


NITRA CPS9F Series Cylinder Position Switches			
Part No.	***Description***	***Price***	***Weight (lbs)***
CPS9F-AP-A	Pneumatic cylinder switch, for position sensing, magnetic, rectangular, normally open, 3-wire, 5-28 VDC, electronic PNP transistor output, status LED, 9.8 ft. (3.0m) cable with wire leads. Can be mounted on cylinders with 6.5 x 3.2 mm T-slots.	$11.50	0.2
CPS9F-AN-A	Pneumatic cylinder switch, for position sensing, magnetic, rectangular, normally open, 3-wire, 5-28 VDC, electronic NPN transistor output, status LED, 9.8 ft. (3.0m) cable with wire leads. Can be mounted on cylinders with 6.5 x 3.2 mm T-slots.	$11.50	0.2
CPS9F-AP-F	Pneumatic cylinder switch, for position sensing, magnetic, rectangular, normally open, 3-wire, 5-28 VDC, electronic PNP transistor output, status LED, 0.5 ft. (0.15m) cable with M8 snap-fit connector. Can be mounted on cylinders with 6.5 x 3.2 mm T-slots.	$11.50	0.2
CPS9F-AN-F	Pneumatic cylinder switch, for position sensing, magnetic, rectangular, normally open, 3-wire, 5-28 VDC, electronic NPN transistor output, status LED, 0.5 ft. (0.15m) cable with M8 snap-fit connector. Can be mounted on cylinders with 6.5 x 3.2 mm T-slots.	$11.50	0.2

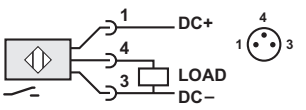
Wiring



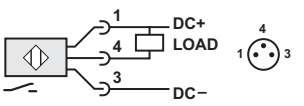
CPS9F-AP-A



CPS9F-AN-A



CPS9F-AP-F

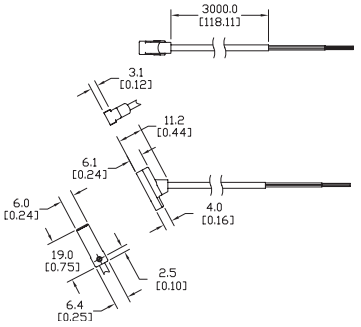


CPS9F-AN-F

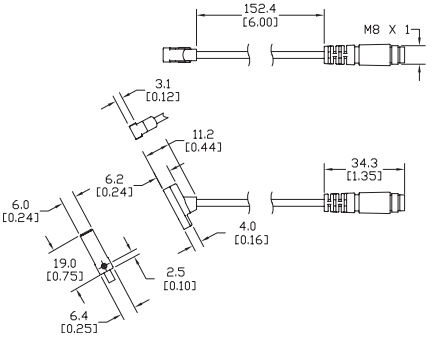
NITRA CPS9F Series Cylinder Switch Specifications	
Operating Voltage	5-28 VDC
Voltage Drop	1.0 V
Current Rating	0.2 Amps Max.
Switching Power	4.8 watts Max.
Switching Speed	4µs operate / 4µs release
Short Circuit Protection	No
Reverse Polarity Protection	Yes
Overload Protection	No
Leakage Current	< 0.01 mA
Sensing Technology	GMR
Off Delay Time	150-200 ms
Function Display	PNP switching status yellow / NPN switching status red
Switching Frequency	< 1000 Hz
Magnetic Sensitivity	2.5 millitesla (25 gauss)
Housing Materials	Zytel
Operating Temperature	-4°F to 176°F (-20°C to 80°C)
Protection Rating	NEMA 6 / IP 67
Agency Approvals	CE, RoHS, REACH

Dimensions

mm [inches]



CPS9F-xx-A *wire length tolerance +12" / - 0"*



CPS9F-xx-F *cable length tolerance ± 1.5"*

CPS9H Series Cylinder Position Switches

NITRA CPS9H Series cylinder position switches are general purpose switches for use with cylinders having a magnetic piston. The switches are designed to mount on cylinders with 4mm square T-slots.



CPS9H-AP-A

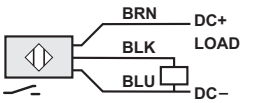


CPS9H-AP-F

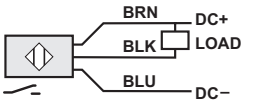


Wiring

NITRA CPS9H Series Cylinder Position Switches			
Part No.	***Description***	***Price***	***Weight (lbs)***
CPS9H-AP-A	Pneumatic cylinder switch, for position sensing, magnetic, square, normally open, 3-wire, 5-28 VDC, electronic PNP transistor output, status LED, 9.8 ft. (3.0m) cable with wire leads. Can be mounted on cylinders with 4mm square T-slots.	$20.00	0.2
CPS9H-AN-A	Pneumatic cylinder switch, for position sensing, magnetic, square, normally open, 3-wire, 5-28 VDC, electronic NPN transistor output, status LED, 9.8 ft. (3.0m) cable with wire leads. Can be mounted on cylinders with 4mm square T-slots.	$20.00	0.2
CPS9H-AP-F	Pneumatic cylinder switch, for position sensing, magnetic, square, normally open, 3-wire, 5-28 VDC, electronic PNP transistor output, status LED, 0.5 ft. (0.15m) cable with M8 snap-fit connector. Can be mounted on cylinders with 4mm square T-slots.	$20.00	0.2
CPS9H-AN-F	Pneumatic cylinder switch, for position sensing, magnetic, square, normally open, 3-wire, 5-28 VDC, electronic NPN transistor output, status LED, 0.5 ft. (0.15m) cable with M8 snap-fit connector. Can be mounted on cylinders with 4mm square T-slots.	$20.00	0.2

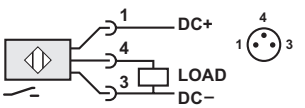


CPS9H-AP-A

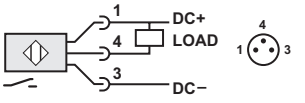


CPS9H-AN-A

NITRA CPS9H Series Cylinder Switch Specifications	
Operating Voltage	5-28 VDC
Voltage Drop	0.5 V @ 200 mA
Current Rating	0.2 Amps Max.
Switching Power	4.8 watts Max.
Short Circuit Protection	No
Reverse Polarity Protection	Yes
Overload Protection	No
Leakage Current	< 0.01 mA
Sensing Technology	GMR
Off Delay Time	150-200 ms
Function Display	PNP switching status green / NPN switching status red
Switching Frequency	< 1000 Hz
Magnetic Sensitivity	4 millitesla (40 gauss)
Housing Materials	ABS
Operating Temperature	-14°F to 158°F (-10°C to 70°C)
Protection Rating	NEMA 6 / IP 67
Agency Approvals	CE, RoHS, REACH



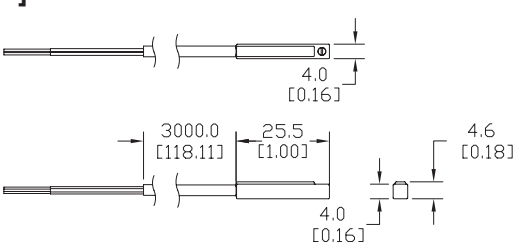
CPS9H-AP-F



CPS9H-AN-F

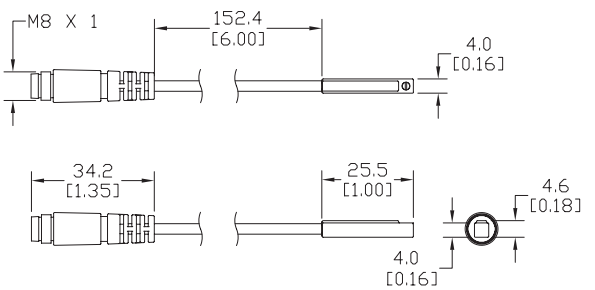
Dimensions

mm [inches]



CPS9H-xx-A

wire length tolerance +12" / - 0"



CPS9H-xx-F

cable length tolerance ± 1.5"

CPS9M Series Cylinder Position Switches

NITRA CPS9M Series cylinder position switches are general purpose switches for use with cylinders having a magnetic piston. The switches are designed to mount on cylinders with 1/4 inch round slots.



CPS9M-AP-A



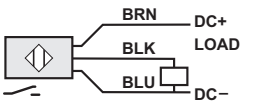
CPS9M-AP-F



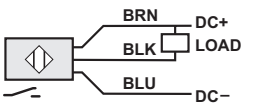
NITRA CPS9M Series Cylinder Position Switches			
Part No.	***Description***	***Price***	***Weight (lbs)***
CPS9M-AP-A	Pneumatic cylinder switch, for position sensing, magnetic, round, normally open, 3-wire, 5-28 VDC, electronic PNP transistor output, status LED, 9.8 ft. (3.0m) cable with wire leads. Can be mounted on cylinders with 1/4 inch round slots.	$14.00	0.2
CPS9M-AN-A	Pneumatic cylinder switch, for position sensing, magnetic, round, normally open, 3-wire, 5-28 VDC, electronic NPN transistor output, status LED, 9.8 ft. (3.0m) cable with wire leads. Can be mounted on cylinders with 1/4 inch round slots.	$14.00	0.2
CPS9M-AP-F	Pneumatic cylinder switch, for position sensing, magnetic, round, normally open, 3-wire, 5-28 VDC, electronic PNP transistor output, status LED, 0.5 ft. (0.15m) cable with M8 snap-fit connector. Can be mounted on cylinders with 1/4 inch round slots.	$14.00	0.2
CPS9M-AN-F	Pneumatic cylinder switch, for position sensing, magnetic, round, normally open, 3-wire, 5-28 VDC, electronic NPN transistor output, status LED, 0.5 ft. (0.15m) cable with M8 snap-fit connector. Can be mounted on cylinders with 1/4 inch round slots.	$14.00	0.2

NITRA CPS9M Series Cylinder Switch Specifications	
Operating Voltage	5-28 VDC
Voltage Drop	1.5 V @ 200 mA
Current Rating	0.2 Amps Max.
Switching Power	4.8 watts Max.
Short Circuit Protection	No
Reverse Polarity Protection	Yes
Overload Protection	No
Leakage Current	< 0.01 mA
Sensing Technology	GMR
Off Delay Time	150-200 ms
Function Display	PNP switching status green / NPN switching status red
Switching Frequency	< 1000 Hz
Magnetic Sensitivity	4 millitesla (40 gauss)
Housing Materials	ABS
Operating Temperature	-14°F to 158°F (-10°C to 70°C)
Protection Rating	NEMA 6 / IP 67
Agency Approvals	CE, RoHS, REACH

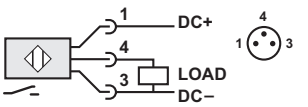
Wiring



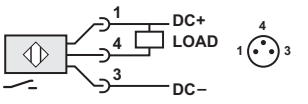
CPS9M-AP-A



CPS9M-AN-A



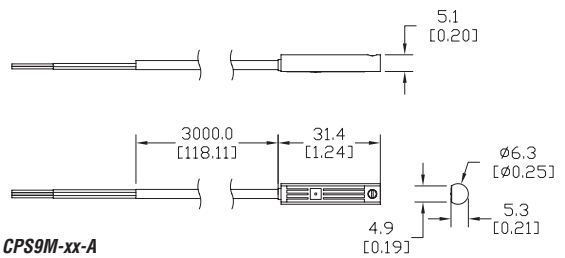
CPS9M-AP-F



CPS9M-AN-F

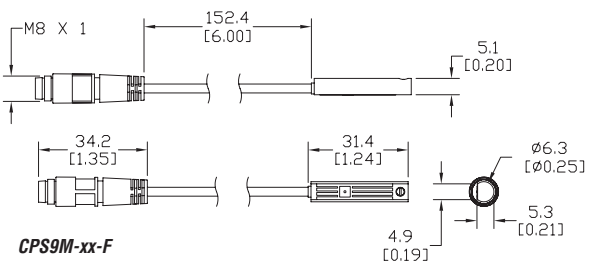
Dimensions

mm [inches]



CPS9M-xx-A

wire length tolerance +12" / - 0"

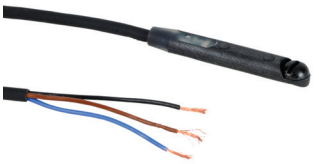


CPS9M-xx-F

cable length tolerance ± 1.5"

CPS9Q Series Cylinder Position Switches

NITRA CPS9Q Series cylinder position switches are general purpose switches for use with cylinders having a magnetic piston. The switches are designed to mount on cylinders with a 6.5 x 3.2 mm T-slot channel.



CPS9Q-AP-A

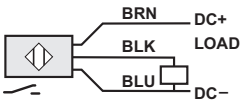


CPS9Q-AP-F

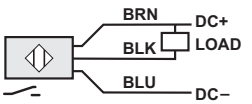


NITRA CPS9Q Series Cylinder Position Switches			
Part No.	***Description***	***Price***	***Weight (lbs)***
CPS9Q-AP-A	Pneumatic cylinder switch, for position sensing, magnetic, rectangular, normally open, 3-wire, 5-28 VDC, electronic PNP transistor output, status LED, 9.8 ft. (3.0m) cable with wire leads. Low profile housing that can be mounted on cylinders with 6.5 x 3.2 mm T-slots.	$16.00	0.2
CPS9Q-AN-A	Pneumatic cylinder switch, for position sensing, magnetic, rectangular, normally open, 3-wire, 5-28 VDC, electronic NPN transistor output, status LED, 9.8 ft. (3.0m) cable with wire leads. Low profile housing that can be mounted on cylinders with 6.5 x 3.2 mm T-slots.	$16.00	0.2
CPS9Q-AP-F	Pneumatic cylinder switch, for position sensing, magnetic, rectangular, normally open, 3-wire, 5-28 VDC, electronic PNP transistor output, status LED, 0.5 ft. (0.15m) cable with M8 snap-fit connector. Low profile housing that can be mounted on cylinders with 6.5 x 3.2 mm T-slots.	$16.00	0.2
CPS9Q-AN-F	Pneumatic cylinder switch, for position sensing, magnetic, rectangular, normally open, 3-wire, 5-28 VDC, electronic NPN transistor output, status LED, 0.5 ft. (0.15m) cable with M8 snap-fit connector. Low profile housing that can be mounted on cylinders with 6.5 x 3.2 mm T-slots.	$16.00	0.2

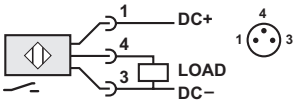
Wiring



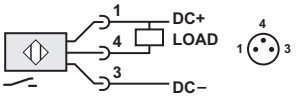
CPS9Q-AP-A



CPS9Q-AN-A



CPS9Q-AP-F

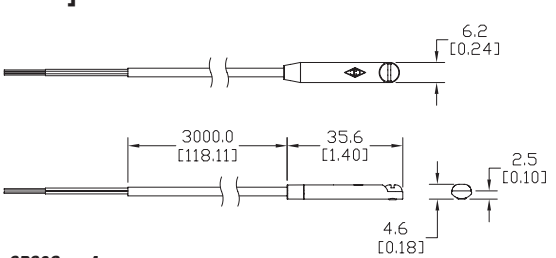


CPS9Q-AN-F

NITRA CPS9Q Series Cylinder Switch Specifications	
Operating Voltage	5-28 VDC
Voltage Drop	1.0 V
Current Rating	0.2 Amps Max.
Switching Power	4.8 watts Max.
Switching Speed	4µs operate / 4µs release
Short Circuit Protection	No
Reverse Polarity Protection	Yes
Overload Protection	No
Leakage Current	< 0.01 mA
Sensing Technology	GMR
Off Delay Time	150-200 ms
Function Display	PNP switching status yellow / NPN switching status red
Switching Frequency	< 1000 Hz
Magnetic Sensitivity	2.5 millitesla (25 gauss)
Housing Materials	Ultem
Operating Temperature	-4°F to 176°F (-20°C to 80°C)
Protection Rating	NEMA 6 / IP 67
Agency Approvals	CE, RoHS, REACH

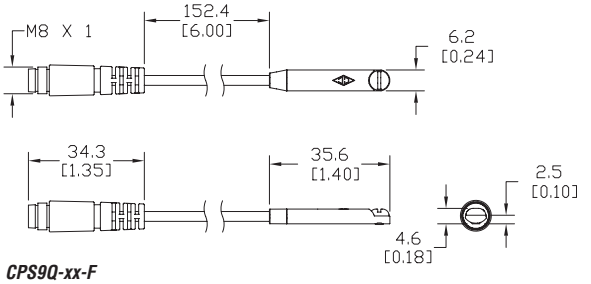
Dimensions

mm [inches]



CPS9Q-xx-A

wire length tolerance +12" / - 0"

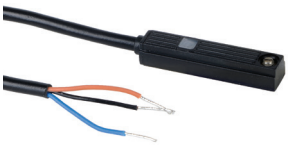


CPS9Q-xx-F

cable length tolerance ± 1.5"

CPS9T Series Cylinder Position Switches

NITRA CPS9T Series cylinder position switches are general purpose switches for use with cylinders having a magnetic piston. The switches are designed to mount on cylinders with 7.2 x 3.9 mm T-slots.



CPS9T-AP-A

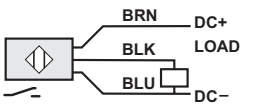


CPS9T-AP-F

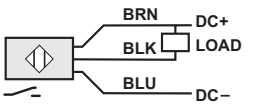


Wiring

NITRA CPS9T Series Cylinder Position Switches			
Part No.	***Description***	***Price***	***Weight (lbs)***
CPS9T-AP-A	Pneumatic cylinder switch, for position sensing, magnetic, rectangular, normally open, 3-wire, 5-28 VDC, electronic PNP transistor output, status LED, 9.8 ft. (3.0m) cable with wire leads. Can be mounted on cylinders with 7.2 x 3.9 mm T-slots.	$20.50	0.2
CPS9T-AN-A	Pneumatic cylinder switch, for position sensing, magnetic, rectangular, normally open, 3-wire, 5-28 VDC, electronic NPN transistor output, status LED, 9.8 ft. (3.0m) cable with wire leads. Can be mounted on cylinders with 7.2 x 3.9 mm T-slots.	$20.50	0.2
CPS9T-AP-F	Pneumatic cylinder switch, for position sensing, magnetic, rectangular, normally open, 3-wire, 5-28 VDC, electronic PNP transistor output, status LED, 0.5 ft. (0.15m) cable with M8 snap-fit connector. Can be mounted on cylinders with 7.2 x 3.9 mm T-slots.	$20.50	0.2
CPS9T-AN-F	Pneumatic cylinder switch, for position sensing, magnetic, rectangular, normally open, 3-wire, 5-28 VDC, electronic NPN transistor output, status LED, 0.5 ft. (0.15m) cable with M8 snap-fit connector. Can be mounted on cylinders with 7.2 x 3.9 mm T-slots.	$20.50	0.2

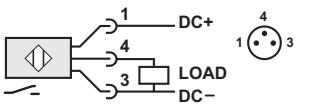


CPS9T-AP-A

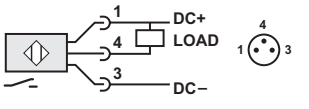


CPS9T-AN-A

NITRA CPS9H Series Cylinder Switch Specifications	
Operating Voltage	5-28 VDC
Voltage Drop	0.5 V @ 200 mA
Current Rating	0.2 Amps Max.
Switching Power	4.8 watts Max.
Short Circuit Protection	No
Reverse Polarity Protection	Yes
Overload Protection	No
Leakage Current	< 0.01 mA
Sensing Technology	GMR
Off Delay Time	150-200 ms
Function Display	PNP switching status green / NPN switching status red
Switching Frequency	< 1000 Hz
Magnetic Sensitivity	4 millitesla (40 gauss)
Housing Materials	ABS
Operating Temperature	-14°F to 158°F (-10°C to 70°C)
Protection Rating	NEMA 6 / IP 67
Agency Approvals	CE, RoHS, REACH



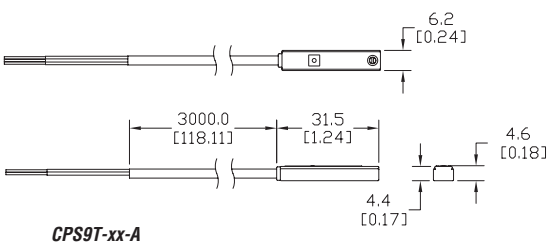
CPS9T-AP-F



CPS9T-AN-F

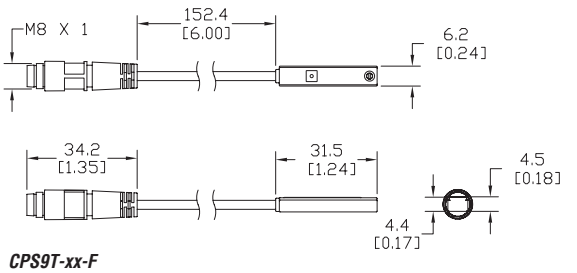
Dimensions

mm [inches]



CPS9T-xx-A

wire length tolerance +12" / - 0"



CPS9T-xx-F

cable length tolerance ± 1.5"

Polyurethane Pneumatic Tubing



NITRA™ polyurethane (PUR) tubing is made from the highest quality, 100% virgin raw materials available and has a hardness specification of Shore A 98. It is ether based to provide excellent hydrolysis, oil and cold resistance. NITRA polyurethane tubing is strong, flexible, and offers superior kink resistance compared to other tubing. With its extremely tight outside diameter tolerance, NITRA polyurethane tubing is ideal for use with NITRA push-to-connect fittings.

Features

- Inch and metric sizes available
- Seven colors - black, blue, clear, red, yellow, clear blue, and dark green (UV stabilized)
- 100 foot and 500 foot package sizes, 100 and 250 foot package sizes for the PU16M series
- Shore A 98 hardness
- Strong, flexible and kink resistant
- Made in USA

Color Key	
Standard Tubing	*UV Stabilized Tubing*

- UV stabilized tubing is excellent for outdoor use

Polyurethane 1/8 in. Tubing Specifications					
Outside Diameter (in.)	0.125	*Working Pressure (psi) @ 70°F*	240	*Temp. Range*	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (in.)	0.062	*Burst Pressure (psi)*	720	*Hardness*	Shore A 98
Wall Thickness (in.)	0.031	*Vacuum Rating*	To 28" Hg	*Bend Radius (in.)*	0.200

100 ft. Package Length				500 ft. Reel Length			
Part Number	*Price*	*Color*	*Package Weight (lbs)*	*Part Number*	*Price*	*Color*	*Package Weight (lbs)*
PU18BLK100	$13.50	Black	0.5	*PU18BLK500*	$67.00	Black	2.5
PU18BLU100	$13.50	Blue		*PU18BLU500*	$67.00	Blue	
PU18CLR100	$13.50	Clear		*PU18CLR500*	$67.00	Clear	
PU18CBL100	$13.50	Clear Blue		*PU18CBL500*	$67.00	Clear Blue	
PU18RED100	$13.50	Red		*PU18RED500*	$67.00	Red	
PU18YEL100	$13.50	Yellow		*PU18YEL500*	$67.00	Yellow	
UV18GRN100	$19.00	Dark Green		*UV18GRN500*	$96.00	Dark Green	

Polyurethane 5/32 in. (4 mm) Tubing Specifications					
Outside Diameter (in.)	0.156	*Working Pressure (psi) @ 70°F*	200	*Temp. Range*	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (in.)	0.093	*Burst Pressure (psi)*	600	*Hardness*	Shore A 98
Wall Thickness (in.)	0.031	*Vacuum Rating*	To 28" Hg	*Bend Radius (in.)*	0.250

100 ft. Package Length				500 ft. Reel Length			
Part Number	*Price*	*Color*	*Package Weight (lbs)*	*Part Number*	*Price*	*Color*	*Package Weight (lbs)*
PU532BLK100	$10.50	Black	1.0	*PU532BLK500*	$49.00	Black	4.0
PU532BLU100	$10.50	Blue		*PU532BLU500*	$49.00	Blue	
PU532CLR100	$10.50	Clear		*PU532CLR500*	$49.00	Clear	
PU532CBL100	$10.50	Clear Blue		*PU532CBL500*	$49.00	Clear Blue	
PU532RED100	$10.50	Red		*PU532RED500*	$49.00	Red	
PU532YEL100	$10.50	Yellow		*PU532YEL500*	$49.00	Yellow	
UV532GRN100	$12.00	Dark Green		*UV532GRN500*	$59.00	Dark Green	

NITRA PNEUMATICS

Polyurethane Pneumatic Tubing

Polyurethane 1/4 in. Tubing Specifications					
Outside Diameter (in.)	0.250	Working Pressure (psi) @ 70°F	180	Temp. Range	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (in.)	0.156	Burst Pressure (psi)	540	Hardness	Shore A 98
Wall Thickness (in.)	0.047	Vacuum Rating	To 28" Hg	Bend Radius (in.)	0.476

100 ft. Package Length				500 ft. Reel Length			
Part Number	Price	Color	Package Weight (lbs)	Part Number	Price	Color	Package Weight (lbs)
PU14BLK100	$19.00	Black	2.0	PU14BLK500	$91.00	Black	8.0
PU14BLU100	$19.00	Blue		PU14BLU500	$91.00	Blue	
PU14CLR100	$19.00	Clear		PU14CLR500	$91.00	Clear	
PU14CBL100	$19.00	Clear Blue		PU14CBL500	$91.00	Clear Blue	
PU14RED100	$19.00	Red		PU14RED500	$91.00	Red	
PU14YEL100	$19.00	Yellow		PU14YEL500	$91.00	Yellow	
UV14GRN100	$21.00	Dark Green		UV14GRN500	$105.00	Dark Green	

Polyurethane 3/8 in. Tubing Specifications					
Outside Diameter (in.)	0.375	Working Pressure (psi) @ 70°F	150	Temp. Range	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (in.)	0.250	Burst Pressure (psi)	450	Hardness	Shore A 98
Wall Thickness (in.)	0.063	Vacuum Rating	To 28" Hg	Bend Radius (in.)	1.00

100 ft. Package Length				500 ft. Reel Length			
Part Number	Price	Color	Package Weight (lbs)	Part Number	Price	Color	Package Weight (lbs)
PU38BLK100	$38.50	Black	3.0	PU38BLK500	$183.00	Black	16.0
PU38BLU100	$38.50	Blue		PU38BLU500	$183.00	Blue	
PU38CLR100	$38.50	Clear		PU38CLR500	$183.00	Clear	
PU38CBL100	$38.50	Clear Blue		PU38CBL500	$183.00	Clear Blue	
PU38RED100	$38.50	Red		PU38RED500	$183.00	Red	
PU38YEL100	$38.50	Yellow		PU38YEL500	$183.00	Yellow	
UV38GRN100	$43.00	Dark Green		UV38GRN500	$215.00	Dark Green	

Polyurethane 1/2 in. Tubing Specifications					
Outside Diameter (in.)	0.500	Working Pressure (psi) @ 70°F	150	Temp. Range	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (in.)	0.328	Burst Pressure (psi)	450	Hardness	Shore A 98
Wall Thickness (in.)	0.086	Vacuum Rating	To 28" Hg	Bend Radius (in.)	1.102

100 ft. Package Length				500 ft. Reel Length			
Part Number	Price	Color	Package Weight (lbs)	Part Number	Price	Color	Package Weight (lbs)
PU12BLK100	$68.00	Black	6.0	PU12BLK500	$322.00	Black	29.0
PU12BLU100	$68.00	Blue		PU12BLU500	$322.00	Blue	
PU12CLR100	$68.00	Clear		PU12CLR500	$322.00	Clear	
PU12CBL100	$68.00	Clear Blue		PU12CBL500	$322.00	Clear Blue	
PU12RED100	$68.00	Red		PU12RED500	$322.00	Red	
PU12YEL100	$68.00	Yellow		PU12YEL500	$322.00	Yellow	
UV12GRN100	$78.50	Dark Green		UV12GRN500	$391.00	Dark Green	

NITRA PNEUMATICS Polyurethane Pneumatic Tubing

Polyurethane 6 mm Tubing Specifications					
Outside Diameter (mm)	6.0	Working Pressure (psi) @ 70°F	180	Temp. Range	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (mm)	4.0	Burst Pressure (psi)	540	Hardness	Shore A 98
Wall Thickness (mm)	1.0	Vacuum Rating	To 28" Hg	Bend Radius (mm)	12.0

100 ft. Package Length				500 ft. Reel Length			
Part Number	Price	Color	Package Weight (lbs)	Part Number	Price	Color	Package Weight (lbs)
PU6MBLK100	$18.50	Black	2.0	PU6MBLK500	$90.00	Black	7.0
PU6MBLU100	$18.50	Blue		PU6MBLU500	$90.00	Blue	
PU6MCLR100	$18.50	Clear		PU6MCLR500	$90.00	Clear	
PU6MCBL100	$18.50	Clear Blue		PU6MCBL500	$90.00	Clear Blue	
PU6MRED100	$18.50	Red		PU6MRED500	$90.00	Red	
PU6MYEL100	$18.50	Yellow		PU6MYEL500	$90.00	Yellow	
UV6MGRN100	$21.00	Dark Green		UV6MGRN500	$104.00	Dark Green	

Polyurethane 8 mm (5/16 in.) Tubing Specifications					
Outside Diameter (mm)	8.0	Working Pressure (psi) @ 70°F	175	Temp. Range	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (mm)	5.0	Burst Pressure (psi)	525	Hardness	Shore A 98
Wall Thickness (mm)	1.5	Vacuum Rating	To 28" Hg	Bend Radius (mm)	15.0

100 ft. Package Length				500 ft. Reel Length			
Part Number	Price	Color	Package Weight (lbs)	Part Number	Price	Color	Package Weight (lbs)
PU8MBLK100	$28.50	Black	3.0	PU8MBLK500	$137.00	Black	12.0
PU8MBLU100	$28.50	Blue		PU8MBLU500	$137.00	Blue	
PU8MCLR100	$28.50	Clear		PU8MCLR500	$137.00	Clear	
PU8MCBL100	$28.50	Clear Blue		PU8MCBL500	$137.00	Clear Blue	
PU8MRED100	$28.50	Red		PU8MRED500	$137.00	Red	
PU8MYEL100	$28.50	Yellow		PU8MYEL500	$137.00	Yellow	
UV8MGRN100	$32.00	Dark Green		UV8MGRN500	$160.00	Dark Green	

Polyurethane 10 mm Tubing Specifications					
Outside Diameter (mm)	10.0	Working Pressure (psi) @ 70°F	150	Temp. Range	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (mm)	6.5	Burst Pressure (psi)	450	Hardness	Shore A 98
Wall Thickness (mm)	1.75	Vacuum Rating	To 28" Hg	Bend Radius (mm)	25.0

100 ft. Package Length				500 ft. Reel Length			
Part Number	Price	Color	Package Weight (lbs)	Part Number	Price	Color	Package Weight (lbs)
PU10MBLK100	$40.00	Black	4.0	PU10MBLK500	$188.00	Black	18.0
PU10MBLU100	$40.00	Blue		PU10MBLU500	$188.00	Blue	
PU10MCLR100	$40.00	Clear		PU10MCLR500	$188.00	Clear	
PU10MCBL100	$40.00	Clear Blue		PU10MCBL500	$188.00	Clear Blue	
PU10MRED100	$40.00	Red		PU10MRED500	$188.00	Red	
PU10MYEL100	$40.00	Yellow		PU10MYEL500	$188.00	Yellow	
UV10MGRN100	$44.00	Dark Green		UV10MGRN500	$221.00	Dark Green	

Polyurethane Pneumatic Tubing

Polyurethane 12 mm Tubing Specifications					
Outside Diameter (mm)	12.0	Working Pressure (psi) @ 70°F	150	Temp. Range	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (mm)	8.0	Burst Pressure (psi)	450	Hardness	Shore A 98
Wall Thickness (mm)	2.0	Vacuum Rating	To 28" Hg	Bend Radius (mm)	28.0

100 ft. Package Length				500 ft. Reel Length			
Part Number	Price	Color	Package Weight (lbs)	Part Number	Price	Color	Package Weight (lbs)
PU12MBLK100	$68.00	Black	5.0	PU12MBLK500	$322.00	Black	24.0
PU12MBLU100	$68.00	Blue		PU12MBLU500	$322.00	Blue	
PU12MCLR100	$68.00	Clear		PU12MCLR500	$322.00	Clear	
PU12MCBL100	$68.00	Clear Blue		PU12MCBL500	$322.00	Clear Blue	
PU12MRED100	$68.00	Red		PU12MRED500	$322.00	Red	
PU12MYEL100	$68.00	Yellow		PU12MYEL500	$322.00	Yellow	
UV12MGRN100	$76.50	Dark Green		UV12MGRN500	$381.00	Dark Green	

Polyurethane 16 mm Tubing Specifications					
Outside Diameter (mm)	16.0	Working Pressure (psi) @ 70°F	150	Temp. Range	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (mm)	11.0	Burst Pressure (psi)	450	Hardness	Shore A 98
Wall Thickness (mm)	2.5	Vacuum Rating	To 28" Hg	Bend Radius (mm)	30.0

100 ft. Package Length				250 ft. Reel Length			
Part Number	Price	Color	Package Weight (lbs)	Part Number	Price	Color	Package Weight (lbs)
PU16MBLK100	$114.00	Black	8.35	PU16MBLK250	$296.00	Black	23.20
PU16MBLU100	$114.00	Blue		PU16MBLU250	$296.00	Blue	
PU16MCLR100	$114.00	Clear		PU16MCLR250	$296.00	Clear	
PU16MCBL100	$114.00	Clear Blue		PU16MCBL250	$296.00	Clear Blue	

NITRA Pneumatic Tubing Accessories

Pneumatic Tubing Cutter				
Part Number	Description	Pcs/Pkg	Package Weight (lbs)	Price
TC-12	NITRA pneumatic tubing cutter for use with 1/8 to 1/2 inch and 4 to 12 mm outside diameter flexible plastic tubing.	1	0.1	$4.25
TC-20	NITRA pneumatic heavy duty tubing cutter for use with polyurethane, nylon and other flexible tubing up to 2 inch [50mm] outside diameter.	1	0.2	$7.25



TC-12



TC-20

Nylon Pneumatic Tubing



NITRA nylon 12 tubing is made from the highest quality, 100% virgin raw materials and has a hardness specification of Shore D 70. Nylon tubing is recognized as an industry standard for applications which require higher working pressures and better heat/chemical resistance than polyurethane. NITRA nylon 12 tubing is strong, lightweight, and has a very low moisture absorption rate so it will remain flexible with a longer life than other nylons. NITRA nylon 12 is ideal for use with NITRA push-to-connect fittings.

Features

- Inch and metric sizes available
- Five colors - black, blue , natural, red and yellow
- 100 foot and 500 foot package sizes
- Shore D 70 hardness
- High working pressure and temperature/chemical resistance
- Made in USA

Nylon 5/32 in. (4 mm) Tubing Specifications							
Outside Diameter (in.)	0.156	Working Pressure (psi) @ 70°F		350	Temp. Range	-60°F to +200°F (-51°C to +93°C)	
Inside Diameter (in.)	0.106	Burst Pressure (psi)		1050	Hardness	Shore D 70	
Wall Thickness (in.)	0.025	Vacuum Rating		To 28" Hg	Bend Radius (in.)	0.50	
100 ft. Package Length				500 ft. Reel Length			
Part Number	Price	Color	PKG WT (lbs)	Part Number	Price	Color	Package Weight (lbs)
N532BLK100	$10.50	Black	1.0	N532BLK500	$48.50	Black	3.0
N532BLU100	$10.50	Blue		N532BLU500	$48.50	Blue	
N532NAT100	$10.50	Natural		N532NAT500	$48.50	Natural	
N532RED100	$10.50	Red		N532RED500	$48.00	Red	
N532YEL100	$10.50	Yellow		N532YEL500	$48.00	Yellow	

Nylon 1/4 in. Tubing Specifications							
Outside Diameter (in.)	0.250	Working Pressure (psi) @ 70°F		290	Temp. Range	-60°F to +200°F (-51°C to +93°C)	
Inside Diameter (in.)	0.180	Burst Pressure (psi)		870	Hardness	Shore D 70	
Wall Thickness (in.)	0.035	Vacuum Rating		To 28" Hg	Bend Radius (in.)	1.25	
100 ft. Package Length				500 ft. Reel Length			
Part Number	Price	Color	PKG WT (lbs)	Part Number	Price	Color	Package Weight (lbs)
N14BLK100	$17.50	Black	2.0	N14BLK500	$82.00	Black	7.0
N14BLU100	$17.50	Blue		N14BLU500	$82.00	Blue	
N14NAT100	$17.50	Natural		N14NAT500	$82.00	Natural	
N14RED100	$17.50	Red		N14RED500	$82.00	Red	
N14YEL100	$17.50	Yellow		N14YEL500	$82.00	Yellow	

Nylon 3/8 in. Tubing Specifications							
Outside Diameter (in.)	0.375	Working Pressure (psi) @ 70°F		250	Temp. Range	-60°F to +200°F (-51°C to +93°C)	
Inside Diameter (in.)	0.275	Burst Pressure (psi)		750	Hardness	Shore D 70	
Wall Thickness (in.)	0.050	Vacuum Rating		To 28" Hg	Bend Radius (in.)	2.00	
100 ft. Package Length				500 ft. Reel Length			
Part Number	Price	Color	PKG WT (lbs)	Part Number	Price	Color	Package Weight (lbs)
N38BLK100	$37.50	Black	3.0	N38BLK500	$175.00	Black	12.0
N38BLU100	$37.50	Blue		N38BLU500	$175.00	Blue	
N38NAT100	$37.50	Natural		N38NAT500	$175.00	Natural	
N38RED100	$37.50	Red		N38RED500	$174.00	Red	
N38YEL100	$37.50	Yellow		N38YEL500	$174.00	Yellow	

NITRA PNEUMATICS

Nylon Pneumatic Tubing

Nylon 1/2 in. Tubing Specifications						
Outside Diameter (in.)	0.500	Working Pressure (psi) @ 70°F		240	Temp. Range	-60°F to +200°F (-51°C to +93°C)
Inside Diameter (in.)	0.375	Burst Pressure (psi)		720	Hardness	Shore D 70
Wall Thickness (in.)	0.062	Vacuum Rating		To 28" Hg	Bend Radius (in.)	3.50

100 ft. Package Length				500 ft. Reel Length			
Part Number	Price	Color	PKG WT (lbs)	Part Number	Price	Color	Package Weight (lbs)
N12BLK100	$62.00	Black	4.0	N12BLK500	$295.00	Black	19.0
N12BLU100	$62.00	Blue		N12BLU500	$295.00	Blue	
N12NAT100	$62.00	Natural		N12NAT500	$295.00	Natural	
N12RED100	$62.00	Red		N12RED500	$295.00	Red	
N12YEL100	$62.00	Yellow		N12YEL500	$295.00	Yellow	

Nylon 6 mm Tubing Specifications						
Outside Diameter (mm)	6.0	Working Pressure (psi) @ 70°F		340	Temp. Range	-60°F to +200°F (-51°C to +93°C)
Inside Diameter (mm)	4.0	Burst Pressure (psi)		1020	Hardness	Shore D 70
Wall Thickness (mm)	1.0	Vacuum Rating		To 28" Hg	Bend Radius (mm)	32.0

100 ft. Package Length				500 ft. Reel Length			
Part Number	Price	Color	PKG WT (lbs)	Part Number	Price	Color	Package Weight (lbs))
N6MBLK100	$18.00	Black	1.0	N6MBLK500	$85.00	Black	6.0
N6MBLU100	$18.00	Blue		N6MBLU500	$85.00	Blue	
N6MNAT100	$18.00	Natural		N6MNAT500	$85.00	Natural	
N6MRED100	$18.00	Red		N6MRED500	$85.00	Red	
N6MYEL100	$18.00	Yellow		N6MYEL500	$85.00	Yellow	

Nylon 8 mm Tubing Specifications						
Outside Diameter (mm)	8.0	Working Pressure (psi) @ 70°F		250	Temp. Range	-60°F to +200°F (-51°C to +93°C)
Inside Diameter (mm)	6.0	Burst Pressure (psi)		750	Hardness	Shore D 70
Wall Thickness (mm)	1.0	Vacuum Rating		To 28" Hg	Bend Radius (mm)	38.0

100 ft. Package Length				500 ft. Reel Length			
Part Number	Price	Color	PKG WT (lbs)	Part Number	Price	Color	Package Weight (lbs)
N8MBLK100	$28.50	Black	2.0	N8MBLK500	$135.00	Black	9.0
N8MBLU100	$28.50	Blue		N8MBLU500	$135.00	Blue	
N8MNAT100	$28.50	Natural		N8MNAT500	$135.00	Natural	
N8MRED100	$28.50	Red		N8MRED500	$135.00	Red	
N8MYEL100	$28.50	Yellow		N8MYEL500	$135.00	Yellow	

Nylon 10 mm Tubing Specifications						
Outside Diameter (mm)	10.0	Working Pressure (psi) @ 70°F		225	Temp. Range	-60°F to +200°F (-51°C to +93°C)
Inside Diameter (mm)	8.0	Burst Pressure (psi)		675	Hardness	Shore D 70
Wall Thickness (mm)	1.0	Vacuum Rating		To 28" Hg	Bend Radius (mm)	51.0

100 ft. Package Length				500 ft. Reel Length			
Part Number	Price	Color	PKG WT (lbs)	Part Number	Price	Color	Package Weight (lbs)
N10MBLK100	$40.00	Black	2.0	N10MBLK500	$188.00	Black	11.0
N10MBLU100	$40.00	Blue		N10MBLU500	$188.00	Blue	
N10MNAT100	$40.00	Natural		N10MNAT500	$188.00	Natural	
N10MRED100	$40.00	Red		N10MRED500	$188.00	Red	
N10MYEL100	$40.00	Yellow		N10MYEL500	$188.00	Yellow	

Nylon Pneumatic Tubing

Nylon 12 mm Tubing Specifications					
Outside Diameter (mm)	12.0	*Working Pressure (psi) @ 70°F*	200	*Temp. Range*	-60°F to +200°F (-51°C to +93°C)
Inside Diameter (mm)	10.0	*Burst Pressure (psi)*	600	*Hardness*	Shore D 70
Wall Thickness (mm)	1.0	*Vacuum Rating*	To 28" Hg	*Bend Radius (mm)*	63.5

100 ft. Package Length				500 ft. Reel Length			
Part Number	*Price*	*Color*	*PKG WT (lbs)*	*Part Number*	*Price*	*Color*	*Package Weight (lbs))*
N12MBLK100	$64.00	Black	4.0	*N12MBLK500*	$301.00	Black	19.0
N12MBLU100	$64.00	Blue		*N12MBLU500*	$301.00	Blue	
N12MNAT100	$64.00	Natural		*N12MNAT500*	$301.00	Natural	
N12MRED100	$64.00	Red		*N12MRED500*	$301.00	Red	
N12MYEL100	$64.00	Yellow		*N12MYEL500*	$301.00	Yellow	

NITRA Pneumatic Tubing Accessories

Pneumatic Tubing Cutter				
Part Number	*Description*	*Pcs/Pkg*	*Package Weight (lbs)*	*Price*
TC-12	NITRA pneumatic tubing cutter for use with 1/8 to 1/2 inch and 4 to 12 mm outside diameter flexible plastic tubing.	1	0.1	$4.25
TC-20	NITRA pneumatic heavy duty tubing cutter for use with polyurethane, nylon and other flexible tubing up to 2 inch [50mm] outside diameter.	1	0.2	$7.25

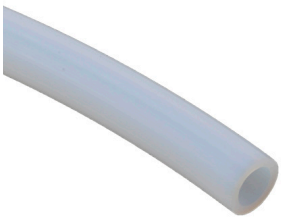


TC-12



TC-20

PTFE Pneumatic Tubing



NITRA PTFE tubing is made from the highest quality, 100% virgin raw materials and has a hardness specification of Shore D 55. PTFE tubing is an excellent choice for many high heat applications. It has exceptional resistance to degradation of mechanical properties under severe conditions. NITRA PTFE tubing does not support combustion and has very good dielectric properties. NITRA PTFE is ideal for use with NITRA stainless steelpush-to-connect fittings.

Features

- Inch and metric sizes available
- Natural color
- 100 foot package sizes
- Shore D 55 hardness
- High working pressure and temperature/chemical resistance
- Made in USA

PTFE 1/4 in. x 1/8 in. Tubing Specifications					
Outside Diameter (in.)	0.250	*Working Pressure (psi) @ 70°F*	372	*Temp. Range*	-454°F to +500°F (-270°C to +260°C)
Inside Diameter (in.)	0.125	*Burst Pressure (psi)*	1488	*Hardness*	Shore D 55
Wall Thickness (in.)	0.063	*Vacuum Rating*	To 28" Hg	*Bend Radius (in.)*	1.18

100 ft. Package Length			
Part Number	*Price*	*Color*	*Package Weight (lbs)*
PT14-18NAT100	$214.00	Natural	2.29

PTFE 1/4 in. x 5/32 in. Tubing Specifications					
Outside Diameter (in.)	0.250	*Working Pressure (psi) @ 70°F*	275	*Temp. Range*	-454°F to +500°F (-270°C to +260°C)
Inside Diameter (in.)	0.156	*Burst Pressure (psi)*	1100	*Hardness*	Shore D 55
Wall Thickness (in.)	0.047	*Vacuum Rating*	To 28" Hg	*Bend Radius (in.)*	1.97

100 ft. Package Length			
Part Number	*Price*	*Color*	*Package Weight (lbs)*
PT14-532NAT100	$166.00	Natural	2.02

PTFE 1/4 in. x 3/16 in. Tubing Specifications					
Outside Diameter (in.)	0.250	*Working Pressure (psi) @ 70°F*	174	*Temp. Range*	-454°F to +500°F (-270°C to +260°C)
Inside Diameter (in.)	0.188	*Burst Pressure (psi)*	696	*Hardness*	Shore D 55
Wall Thickness (in.)	0.031	*Vacuum Rating*	To 28" Hg	*Bend Radius (in.)*	2.56

100 ft. Package Length			
Part Number	*Price*	*Color*	*Package Weight (lbs)*
PT14-316NAT100	$128.00	Natural	1.75

NITRA PNEUMATICS

PTFE Pneumatic Tubing

PTFE 3/8 in. x 1/4 in. Tubing Specifications					
Outside Diameter (in.)	0.375	*Working Pressure (psi) @ 70°F*	240	*Temp. Range*	-454°F to +500°F (-270°C to +260°C)
Inside Diameter (in.)	0.250	*Burst Pressure (psi)*	960	*Hardness*	Shore D 55
Wall Thickness (in.)	0.063	*Vacuum Rating*	To 28" Hg	*Bend Radius (in.)*	4.33
100 ft. Package Length					
Part Number	*Price*	*Color*	*Package Weight (lbs)*		
PT38NAT100	$361.00	Natural	5.84		

PTFE 1/2 in. x 3/8 in. Tubing Specifications					
Outside Diameter (in.)	0.500	*Working Pressure (psi) @ 70°F*	150	*Temp. Range*	-454°F to +500°F (-270°C to +260°C)
Inside Diameter (in.)	0.375	*Burst Pressure (psi)*	600	*Hardness*	Shore D 55
Wall Thickness (in.)	0.063	*Vacuum Rating*	To 28" Hg	*Bend Radius (in.)*	6.50
100 ft. Package Length					
Part Number	*Price*	*Color*	*Package Weight (lbs)*		
PT12NAT100	$413.00	Natural	6.5		

PTFE 4 mm x 2.5 mm Tubing Specifications					
Outside Diameter (mm)	4.0	*Working Pressure (psi) @ 70°F*	292	*Temp. Range*	-454°F to +500°F (-270°C to +260°C)
Inside Diameter (mm)	2.5	*Burst Pressure (psi)*	1168	*Hardness*	Shore D 55
Wall Thickness (mm)	0.75	*Vacuum Rating*	To 28" Hg	*Bend Radius (mm)*	25.0
100 ft. Package Length					
Part Number	*Price*	*Color*	*Package Weight (lbs)*		
PT4MNAT100	$161.00	Natural	1.51		

PTFE 6 mm x 4 mm Tubing Specifications					
Outside Diameter (mm)	6.0	*Working Pressure (psi) @ 70°F*	275	*Temp. Range*	-454°F to +500°F (-270°C to +260°C)
Inside Diameter (mm)	4.0	*Burst Pressure (psi)*	1100	*Hardness*	Shore D 55
Wall Thickness (mm)	1.0	*Vacuum Rating*	To 28" Hg	*Bend Radius (mm)*	40.0
100 ft. Package Length					
Part Number	*Price*	*Color*	*Package Weight (lbs)*		
PT6MNAT100	$222.00	Natural	2.29		

PTFE Pneumatic Tubing

PTFE 8 mm x 6 mm Tubing Specifications					
Outside Diameter (mm)	8.0	Working Pressure (psi) @ 70°F	138	Temp. Range	-454°F to +500°F (-270°C to +260°C)
Inside Diameter (mm)	6.0	Burst Pressure (psi)	552	Hardness	Shore D 70
Wall Thickness (mm)	1.0	Vacuum Rating	To 28" Hg	Bend Radius (mm)	60.0

100 ft. Package Length			
Part Number	Price	Color	Package Weight (lbs)
PT8MNAT100	$287.00	Natural	3.20

PTFE 10 mm x 8 mm Tubing Specifications					
Outside Diameter (mm)	10.0	Working Pressure (psi) @ 70°F	112	Temp. Range	-454°F to +500°F (-270°C to +260°C)
Inside Diameter (mm)	8.0	Burst Pressure (psi)	448	Hardness	Shore D 70
Wall Thickness (mm)	1.0	Vacuum Rating	To 28" Hg	Bend Radius (mm)	100.0

100 ft. Package Length			
Part Number	Price	Color	Package Weight (lbs)
PT10MNAT100	$348.00	Natural	4.13

PTFE 12 mm x 10 mm Tubing Specifications					
Outside Diameter (mm)	12.0	Working Pressure (psi) @ 70°F	105	Temp. Range	-454°F to +500°F (-270°C to +260°C)
Inside Diameter (mm)	10.0	Burst Pressure (psi)	420	Hardness	Shore D 70
Wall Thickness (mm)	1.0	Vacuum Rating	To 28" Hg	Bend Radius (mm)	100.0

100 ft. Package Length			
Part Number	Price	Color	Package Weight (lbs)
PT12MNAT100	$424.00	Natural	6.0

NITRA Pneumatic Tubing Accessories

Pneumatic Tubing Cutter				
Part Number	Description	Pcs/Pkg	Package Weight (lbs)	Price
TC-12	NITRA pneumatic tubing cutter for use with 1/8 to 1/2 inch and 4 to 12 mm outside diameter flexible plastic tubing.	1	0.1	$4.25
TC-20	NITRA pneumatic heavy duty tubing cutter for use with polyurethane, nylon and other flexible tubing up to 2 inch [50mm] outside diameter.	1	0.2	$7.25



TC-12



TC-20

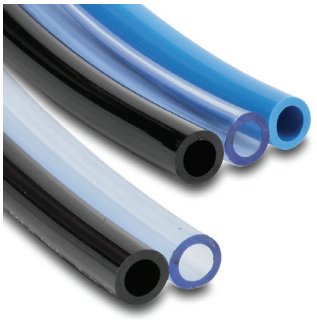
NITRA PNEUMATICS

Tubing Working Pressure Ratings

Nylon Tubing Working Pressure Ratings (psi)				
Size O.D.	*70°F (21°C)*	*100°F (37.8°C)*	*125°F (51.7°C)*	*150°F (65.6°C)*
1/8”	420	168	133	125
5/32” (4 mm)	350	200	169	160
1/4”	290	183	160	140
5/16” (8 mm)	250	183	156	135
3/8”	250	165	148	128
1/2”	240	145	133	125
6 mm	340	190	160	140
10 mm	225	150	130	115
12 mm	200	140	130	120
14 mm	175	100	85	70

Polyurethane Tubing Working Pressure Ratings (psi)		
Size O.D.	*75°F (23.9°C)*	*150°F (65.6°C)*
1/8” (0.125)	240	100
5/32” (0.156)	200	85
3/16” (0.187)	150	90
1/4” (0.250 x 1/8”)	265	105
1/4” (0.3125)	180	70
5/16” (0.375)	175	75
3/8” (0.500)	150	70
1/2” (0.5625)	150	70
9/16” (0.5626)	140	60
5/8” (0.625)	150	70
3/4” (0.750)	140	70
4 mm	200	85
6 mm	180	65
8 mm	175	75
10 mm	150	70
12 mm	150	60
16 mm	150	70

Bonded Straight Polyurethane Tubing



NITRA™ bonded polyurethane (PUR) tubing is made by continuously bonding standard NITRA polyurethane tubing. The result is a strong, organized, color-coded package that makes installation neater and easier. With its extremely tight outside diameter tolerance, NITRA polyurethane tubing is ideal for use with NITRA push-to-connect fittings.

Features

- Inch and metric sizes available
- Contrasting colors
- Secondary bonding process maintains tubing geometry
- 50 foot package size
- Shore A 98 hardness
- Strong, flexible and kink resistant
- Made in USA

Polyurethane 5/32 in. (4 mm) Bonded Tubing Specifications					
Outside Diameter (in.)	0.156	Working Pressure (psi) @ 70°F	200	Temp. Range	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (in.)	0.093	Burst Pressure (psi)	600	Hardness	Shore A 98
Wall Thickness (in.)	0.031	Vacuum Rating	To 28" Hg	Bend Radius (in.)	0.250

Part Number	Price	Configuration	Color	PKG/Reel Length (feet)	Package Weight (lbs)
2PU532-50	$13.00	Bonded double tube	Black, clear blue	50 ft. Package	0.65
3PU532-50	$19.50	Bonded triple tube	Black, clear blue, blue		1.00

Polyurethane 1/4 in. Bonded Tubing Specifications					
Outside Diameter (in.)	0.250	Working Pressure (psi) @ 70°F	180	Temp. Range	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (in.)	0.156	Burst Pressure (psi)	540	Hardness	Shore A 98
Wall Thickness (in.)	0.047	Vacuum Rating	To 28" Hg	Bend Radius (in.)	0.476

Part Number	Price	Configuration	Color	PKG/Reel Length (feet)	Package Weight (lbs)
2PU14-50	$31.00	Bonded double tube	Black, clear blue	50 ft. Package	1.55
3PU14-50	$46.00	Bonded triple tube	Black, clear blue, blue		2.25

Polyurethane 3/8 in. Bonded Tubing Specifications					
Outside Diameter (in.)	0.375	Working Pressure (psi) @ 70°F	150	Temp. Range	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (in.)	0.250	Burst Pressure (psi)	450	Hardness	Shore A 98
Wall Thickness (in.)	0.063	Vacuum Rating	To 28" Hg	Bend Radius (in.)	1.00

Part Number	Price	Configuration	Color	PKG/Reel Length (feet)	Package Weight (lbs)
2PU38-50	$60.00	Bonded double tube	Black, clear blue	50 ft. Package	3.25
3PU38-50	$89.00	Bonded triple tube	Black, clear blue, blue		5.15

Polyurethane 1/2 in. Bonded Tubing Specifications					
Outside Diameter (in.)	0.500	Working Pressure (psi) @ 70°F	150	Temp. Range	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (in.)	0.328	Burst Pressure (psi)	450	Hardness	Shore A 98
Wall Thickness (in.)	0.086	Vacuum Rating	To 28" Hg	Bend Radius (in.)	1.102

Part Number	Price	Configuration	Color	PKG/Reel Length (feet)	Package Weight (lbs)
2PU12-50	$112.00	Bonded double tube	Black, clear blue	50 ft. Package	6.00
3PU12-50	$169.00	Bonded triple tube	Black, clear blue, blue		10.00

NITRA PNEUMATICS

Bonded Straight Polyurethane Tubing

Polyurethane 6 mm Bonded Tubing Specifications						
Outside Diameter (mm)	6.0		Working Pressure (psi) @ 70°F	180	Temp. Range	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (mm)	4.0		Burst Pressure (psi)	540	Hardness	Shore A 98
Wall Thickness (mm)	1.0		Vacuum Rating	To 28" Hg	Bend Radius (mm)	12.0
Part Number	Price	Configuration	Color	PKG/Reel Length (feet)		Package Weight (lbs)
2PU06M-50	$32.00	Bonded double tube	Black, clear blue	50 ft. Package		1.25
3PU06M-50	$49.00	Bonded triple tube	Black, clear blue, blue			2.00

Polyurethane 8 mm Bonded Tubing Specifications						
Outside Diameter (mm)	8.0		Working Pressure (psi) @ 70°F	175	Temp. Range	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (mm)	5.0		Burst Pressure (psi)	525	Hardness	Shore A 98
Wall Thickness (mm)	1.5		Vacuum Rating	To 28" Hg	Bend Radius (mm)	15.0
Part Number	Price	Configuration	Color	PKG/Reel Length (feet)		Package Weight (lbs)
2PU08M-50	$62.00	Bonded double tube	Black, clear blue	50 ft. Package		2.50
3PU08M-50	$92.00	Bonded triple tube	Black, clear blue, blue			3.80

Polyurethane 10 mm Bonded Tubing Specifications						
Outside Diameter (mm)	10.0		Working Pressure (psi) @ 70°F	150	Temp. Range	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (mm)	6.5		Burst Pressure (psi)	450	Hardness	Shore A 98
Wall Thickness (mm)	1.75		Vacuum Rating	To 28" Hg	Bend Radius (mm)	25.0
Part Number	Price	Configuration	Color	PKG/Reel Length (feet)		Package Weight (lbs)
2PU10M-50	$89.00	Bonded double tube	Black, clear blue	50 ft. Package		3.75
3PU10M-50	$130.00	Bonded triple tube	Black, clear blue, blue			5.00

Polyurethane 12 mm Bonded Tubing Specifications						
Outside Diameter (mm)	12.0		Working Pressure (psi) @ 70°F	150	Temp. Range	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (mm)	8.0		Burst Pressure (psi)	450	Hardness	Shore A 98
Wall Thickness (mm)	2.0		Vacuum Rating	To 28" Hg	Bend Radius (mm)	28.0
Part Number	Price	Configuration	Color	PKG/Reel Length (feet)		Package Weight (lbs)
2PU12M-50	$119.00	Bonded double tube	Black, clear blue	50 ft. Package		6.00
3PU12M-50	$179.00	Bonded triple tube	Black, clear blue, blue			10.00

NITRA PNEUMATICS

Polyurethane Coiled Tubing - Single and Bonded Multi-Tube



NITRA™ polyurethane (PUR) coiled tubing is made from our high quality standard polyurethane tubing. NITRA polyurethane tubing is strong, flexible, and offers superior kink resistance compared to other tubing. With its extremely tight outside diameter tolerance, NITRA polyurethane tubing is ideal for use with NITRA push-to-connect fittings. Coiled tubing is available in single, double and triple bonded configurations.

Features

- Inch and metric sizes available
- Contrasting colors on double and triple coils
- Three working lengths for each size
- Shore A 98 hardness
- Strong, flexible and kink resistant
- Made in USA

Polyurethane 5/32 in. (4 mm) Coiled Tubing Specifications						
Outside Diameter (in.)	0.156		*Working Pressure (psi) @ 70°F*	200	*Temp. Range*	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (in.)	0.093		*Burst Pressure (psi)*	600	*Hardness*	Shore A 98
Wall Thickness (in.)	0.031		*Vacuum Rating*	To 28" Hg	*Bend Radius (in.)*	0.250

Part Number	*Price*	*Configuration*	*Color*	*Number of Coils*	*Working Length*	*Package Weight (lbs)*
1PU532C10	$4.50	Single	Clear Blue	10	2.2 ft	0.01
1PU532C20	$5.00			20	3.9 ft	0.01
1PU532C40	$5.50			40	5.5 ft	0.03
2PU532C10	$5.50	Double	Black, Clear Blue	10	2.0 ft	0.01
2PU532C20	$6.00			20	3.5 ft	0.01
2PU532C40	$7.00			40	6.5 ft	0.05
3PU532C10	$10.00	Triple	Black, Clear Blue, Blue	10	2.5 ft	0.05
3PU532C20	$11.00			20	4.4 ft	0.10
3PU532C40	$15.00			40	8.3 ft	0.25

Polyurethane 1/4 in. Coiled Tubing Specifications						
Outside Diameter (in.)	0.250		*Working Pressure (psi) @ 70°F*	180	*Temp. Range*	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (in.)	0.156		*Burst Pressure (psi)*	540	*Hardness*	Shore A 98
Wall Thickness (in.)	0.047		*Vacuum Rating*	To 28" Hg	*Bend Radius (in.)*	0.476

Part Number	*Price*	*Configuration*	*Color*	*Number of Coils*	*Working Length*	*Package Weight (lbs)*
1PU14C10	$6.00	Single	Clear Blue	10	3.2 ft	0.03
1PU14C20	$7.25			20	5.8 ft	0.08
1PU14C40	$8.75			40	8.4 ft	0.18
2PU14C10	$6.50	Double	Black, Clear Blue	10	2.9 ft	0.05
2PU14C20	$8.00			20	5.3 ft	0.15
2PU14C40	$12.00			40	10.0 ft	0.35
3PU14C10	$12.00	Triple	Black, Clear Blue, Blue	10	3.4 ft	0.20
3PU14C20	$15.00			20	6.3 ft	0.40
3PU14C40	$27.00			40	11.9 ft	0.80

NITRA PNEUMATICS

Polyurethane Coiled Tubing - Single and Bonded Multi-Tube

Polyurethane 3/8 in. Coiled Tubing Specifications					
Outside Diameter (in.)	0.375	Working Pressure (psi) @ 70°F	150	Temp. Range	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (in.)	0.250	Burst Pressure (psi)	450	Hardness	Shore A 98
Wall Thickness (in.)	0.063	Vacuum Rating	To 28" Hg	Bend Radius (in.)	1.00

Part Number	Price	Configuration	Color	Number of Coils	Working Length	Package Weight (lbs)
1PU38C10	$8.75	Single	Clear Blue	10	4.0 ft	0.15
1PU38C20	$11.50			20	7.4 ft	0.30
1PU38C40	$15.50			40	14.2 ft	0.60
2PU38C10	$9.00	Double	Black, Clear Blue	10	3.6 ft	0.30
2PU38C20	$13.50			20	6.7 ft	0.55
2PU38C40	$24.00			40	12.9 ft	1.05
3PU38C10	$17.00	Triple	Black, Clear Blue, Blue	10	4.4 ft	0.60
3PU38C20	$26.00			20	8.3 ft	1.10
3PU38C40	$50.00			40	16.0 ft	2.15

Polyurethane 6 mm Coiled Tubing Specifications					
Outside Diameter (mm)	6.0	Working Pressure (psi) @ 70°F	180	Temp. Range	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (mm)	4.0	Burst Pressure (psi)	540	Hardness	Shore A 98
Wall Thickness (mm)	1.0	Vacuum Rating	To 28" Hg	Bend Radius (mm)	12.0

Part Number	Price	Configuration	Color	Number of Coils	Working Length	Package Weight (lbs)
1PU06MC10	$6.00	Single	Clear Blue	10	3.2 ft	0.05
1PU06MC20	$7.00			20	5.8 ft	0.10
1PU06MC40	$8.50			40	8.4 ft	0.18
2PU06MC10	$6.50	Double	Black, Clear Blue	10	2.8 ft	0.10
2PU06MC20	$7.50			20	5.2 ft	0.20
2PU06MC40	$11.50			40	9.9 ft	0.35
3PU06MC10	$12.00	Triple	Black, Clear Blue, Blue	10	3.1 ft	0.20
3PU06MC20	$15.00			20	6.2 ft	0.35
3PU06MC40	$27.00			40	11.8 ft	0.65

Polyurethane 8 mm Coiled Tubing Specifications					
Outside Diameter (mm)	8.0	Working Pressure (psi) @ 70°F	175	Temp. Range	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (mm)	5.0	Burst Pressure (psi)	525	Hardness	Shore A 98
Wall Thickness (mm)	1.5	Vacuum Rating	To 28" Hg	Bend Radius (mm)	15.0

Part Number	Price	Configuration	Color	Number of Coils	Working Length	Package Weight (lbs)
1PU08MC10	$7.50	Single	Clear Blue	10	3.3 ft	0.10
1PU08MC20	$10.00			20	6.1 ft	0.18
1PU08MC40	$13.00			40	8.8 ft	0.35
2PU08MC10	$8.00	Double	Black, Clear Blue	10	3.0 ft	0.20
2PU08MC20	$10.00			20	5.5 ft	0.35
2PU08MC40	$17.00			40	10.5 ft	0.70
3PU08MC10	$14.00	Triple	Black, Clear Blue, Blue	10	3.4 ft	0.35
3PU08MC20	$19.00			20	6.5 ft	0.70
3PU08MC40	$36.00			40	12.4 ft	1.25

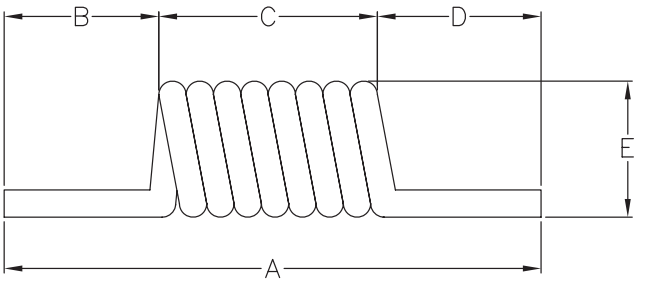
Polyurethane Coiled Tubing - Single and Bonded Multi-Tube

Polyurethane 10 mm Coiled Tubing Specifications					
Outside Diameter (mm)	10.0	***Working Pressure (psi) @ 70°F***	150	***Temp. Range***	-40°F to +160°F (-40°C to +71°C)
Inside Diameter (mm)	6.5	***Burst Pressure (psi)***	450	***Hardness***	Shore A 98
Wall Thickness (mm)	1.75	***Vacuum Rating***	To 28" Hg	***Bend Radius (mm)***	28.0

Part Number	*Price*	*Configuration*	*Color*	*Number of Coils*	*Working Length*	*Package Weight (lbs)*
1PU10MC10	$9.00	Single	Clear Blue	10	4.0 ft	0.18
1PU10MC20	$13.00			20	7.4 ft	0.33
1PU10MC40	$17.00			40	14.2 ft	0.60
2PU10MC10	$10.50	Double	Black, Clear Blue	10	3.6 ft	0.35
2PU10MC20	$15.50			20	6.7 ft	0.65
2PU10MC40	$28.00			40	13.0 ft	1.20
3PU10MC10	$18.50	Triple	Black, Clear Blue, Blue	10	4.4 ft	0.65
3PU10MC20	$30.00			20	8.5 ft	1.25
3PU10MC40	$58.00			40	16.3 ft	2.40

Dimensions

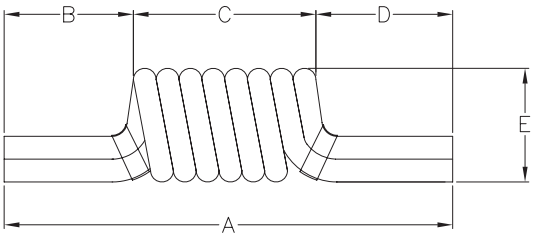
inches [mm]



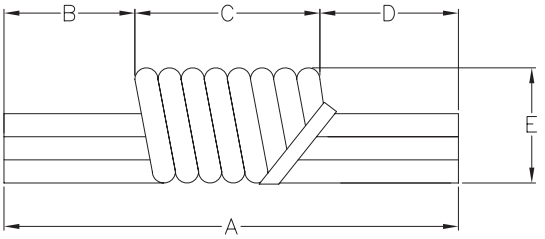
1PU					
PART NUMBER	DIM A (OVERALL LENGTH)	DIM B (TAIL)	DIM C (COMPRESSED COIL)	DIM D (TAIL)	DIM E (COIL O.D.)
1PU532C10	9.56[242.9]	4.0[101.6]	1.56[39.7]	4.0[101.6]	1.00[25.4]
1PU532C20	11.13[282.7]	4.0[101.6]	3.13[79.5]	4.0[101.6]	1.00[25.4]
1PU532C40	14.25[362.0]	4.0[101.6]	6.25[158.8]	4.0[101.6]	1.00[25.4]
1PU14C10	10.50[267.0]	4.0[101.6]	2.50[63.5]	4.0[101.6]	1.50[38.1]
1PU14C20	13.00[330.0]	4.0[101.6]	5.00[127.0]	4.0[101.6]	1.50[38.1]
1PU14C40	18.00[457.2]	4.0[101.6]	10.00[254.0]	4.0[101.6]	1.50[38.1]
1PU38C10	11.75[298.5]	4.0[101.6]	3.75[95.25]	4.0[101.6]	2.00[50.8]
1PU38C20	15.50[393.7]	4.0[101.6]	7.50[190.5]	4.0[101.6]	2.00[50.8]
1PU38C40	23.00[584.2]	4.0[101.6]	15.00[381.0]	4.0[101.6]	2.00[50.8]
1PU6MC10	10.38[263.7]	4.0[101.6]	2.38[60.5]	4.0[101.6]	1.50[38.1]
1PU6MC20	12.75[323.9]	4.0[101.6]	4.75[120.7]	4.0[101.6]	1.50[38.1]
1PU6MC40	17.50[444.5]	4.0[101.6]	9.50[241.3]	4.0[101.6]	1.50[38.1]
1PU8MC10	11.13[282.6]	4.0[101.6]	3.125[79.4]	4.0[101.6]	1.63[41.4]
1PU8MC20	14.25[362.0]	4.0[101.6]	6.25[158.8]	4.0[101.6]	1.63[41.4]
1PU8MC40	20.50[520.7]	4.0[101.6]	12.50[317.5]	4.0[101.6]	1.63[41.4]
1PU10MC10	12.00[304.8]	4.0[101.6]	4.00[101.6]	4.0[101.6]	2.00[50.8]
1PU10MC20	16.00[406.4]	4.0[101.6]	8.00[203.2]	4.0[101.6]	2.00[50.8]
1PU10MC40	24.00[609.6]	4.0[101.6]	16.00[406.4]	4.0[101.6]	2.00[50.8]

Polyurethane Coiled Tubing

Dimensions
inches [mm]



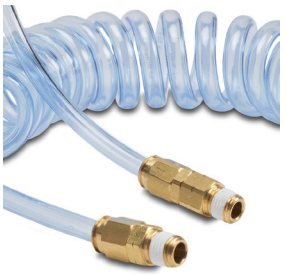
2PU					
PART NUMBER	DIM A (OVERALL LENGTH)	DIM B (TAIL)	DIM C (COMPRESSED COIL)	DIM D (TAIL)	DIM E (COIL O.D.)
2PU532C10	11.13[282.7]	4.00[101.6]	3.13[795.0]	4.00[101.6]	.88[22.4]
2PU532C20	14.25[362.0]	4.00[101.6]	6.25[158.8]	4.00[101.6]	.88[22.4]
2PU532C40	20.63[524.0]	4.00[101.6]	12.63[320.8]	4.00[101.6]	.88[22.4]
2PU14C10	13.00[330.2]	4.00[101.6]	5.00[127.0]	4.00[101.6]	1.50[38.1]
2PU14C20	18.00[457.2]	4.00[101.6]	10.00[254.0]	4.00[101.6]	1.50[38.1]
2PU14C40	28.00[711.2]	4.00[101.6]	20.00[508.0]	4.00[101.6]	1.50[38.1]
2PU38C10	15.50[393.7]	4.00[101.6]	7.50[190.5]	4.00[101.6]	2.00[50.8]
2PU38C20	23.00[584.2]	4.00[101.6]	15.00[381.0]	4.00[101.6]	2.00[50.8]
2PU38C40	38.00[965.2]	4.00[101.6]	30.00[762.0]	4.00[101.6]	2.00[50.8]
2PU6MC10	12.75[323.9]	4.00[101.6]	4.75[120.7]	4.00[101.6]	1.50[38.1]
2PU6MC20	17.50[445.0]	4.00[101.6]	9.50[241.3]	4.00[101.6]	1.50[38.1]
2PU6MC40	27.00[685.8]	4.00[101.6]	19.00[482.6]	4.00[101.6]	1.50[38.1]
2PU8MC10	14.38[365.3]	4.00[101.6]	6.38[162.1]	4.00[101.6]	1.63[41.4]
2PU8MC20	20.63[523.9]	4.00[101.6]	12.63[320.8]	4.00[101.6]	1.63[41.4]
2PU08MC40	33.25[845.0]	4.00[101.6]	25.25[641.4]	4.00[101.6]	1.63[41.4]
2PU10MC10	16.00[406.4]	4.00[101.6]	8.00[203.2]	4.00[101.6]	1.50[38.1]
2PU10MC20	23.75[603.3]	4.00[101.6]	15.75[400.1]	4.00[101.6]	1.50[38.1]
2PU10MC40	39.50[1003.3]	4.00[101.6]	31.50[800.1]	4.00[101.6]	1.50[38.1]



3PU					
PART NUMBER	DIM A (OVERALL LENGTH)	DIM B (TAIL)	DIM C (COMPRESSED COIL)	DIM D (TAIL)	DIM E (COIL O.D.)
3PU532C10	12.75[323.9]	4.00[101.6]	4.75[120.7]	4.00[101.6]	1.25[31.8]
3PU532C20	17.38[441.5]	4.00[101.6]	9.38[238.3]	4.00[101.6]	1.25[31.8]
3PU532C40	27.00[685.8]	4.00[101.6]	19.00[482.6]	4.00[101.6]	1.25[31.8]
3PU14C10	15.50[393.7]	4.00[101.6]	7.50[190.5]	4.00[101.6]	1.75[44.5]
3PU14C20	23.00[584.2]	4.00[101.6]	15.00[381.0]	4.00[101.6]	1.75[44.5]
3PU14C40	38.00[965.2]	4.00[101.6]	30.00[762.0]	4.00[101.6]	1.75[44.5]
3PU38C10	19.25[489.0]	4.00[101.6]	11.25[285.8]	4.00[101.6]	2.50[63.5]
3PU38C20	30.50[774.7]	4.00[101.6]	22.50[571.5]	4.00[101.6]	2.50[63.5]
3PU38C40	53.00[1346.2]	4.00[101.6]	45.00[1143.0]	4.00[101.6]	2.50[63.5]
3PU6MC10	11.00[297.4]	4.00[101.6]	7.00[177.8]	4.00[101.6]	1.75[44.5]
3PU6MC20	22.25[656.15]	4.00[101.6]	14.25[362.0]	4.00[101.6]	1.75[44.5]
3PU6MC40	36.38[924.1]	4.00[101.6]	28.38[720.9]	4.00[101.6]	1.75[44.5]
3PU8MC10	17.50[444.5]	4.00[101.6]	9.50[241.3]	4.00[101.6]	2.00[50.8]
3PU8MC20	27.00[685.8]	4.00[101.6]	19.00[482.6]	4.00[101.6]	2.00[50.8]
3PU8MC40	46.00[1168.4]	4.00[101.6]	38.00[965.2]	4.00[101.6]	2.00[50.8]
3PU10MC10	20.00[508.0]	4.00[101.6]	12.00[304.8]	4.00[101.6]	2.50[63.5]
3PU10MC20	31.63[803.4]	4.00[101.6]	23.63[600.2]	4.00[101.6]	2.50[63.5]
3PU10MC40	55.25[1403.4]	4.00[101.6]	47.25[1200.2]	4.00[101.6]	2.50[63.5]

NITRA® PNEUMATICS

Polyurethane Coiled Hose



NITRA™ polyurethane (PUR) hose is made from the same high quality materials as our tubing. Standard hoses have one rigid and one swivel fitting and are specified by inside diameter. QC hoses have one Male and one Female industrial interchange quick disconnect fitting.

Features

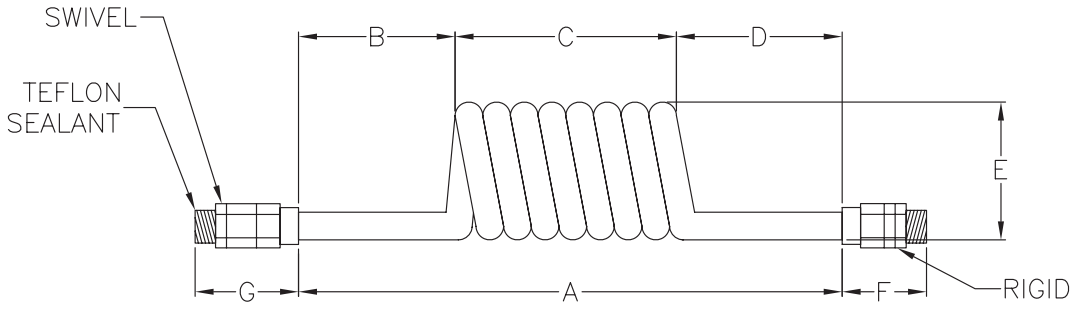
- 1/4" and 3/8" inside diameters
- 8, 12 and 16 foot working lengths
- Clear blue color
- Shore A 98 hardness
- Strong, flexible and kink resistant
- Made in USA

Polyurethane Coiled Hose Specifications			
Working Pressure (psi) @ 68°F	140	***Temp. Range***	-68°F to +140°F (-55°C to +60°C)
Burst Pressure (psi) @ 68°F	428	***Hardness***	Shore A 98

Part Number	*Price*	*Hose I.D. (in)*	*Hose O.D. (in)*	*Wall Thickness*	*Fittings*	*Number of Coils*	*Working Length*	*Package Weight (lbs)*
HP14C10CBL	$13.00	1/4	3/8	0.06	1/4 in MNPT	10	8 ft	0.55
HP14C15CBL	$15.00					15	12 ft	0.60
HP14C20CBL	$16.50					20	16 ft	0.75
HP38C10CBL	$22.00	3/8	9/16	0.09	3/8 in MNPT	10	8 ft	1.00
HP38C15CBL	$27.50					15	12 ft	1.30
HP38C20CBL	$33.00					20	16 ft	1.75
HP14C10CBL-QC	$30.25	1/4	3/8	0.06	1/4 in QD	10	8 ft	0.55
HP14C15CBL-QC	$32.25					15	12 ft	0.60
HP14C20CBL-QC	$34.00					20	16 ft	0.75
HP38C10CBL-QC	$40.75	3/8	9/16	0.09	3/8 in QD	10	8 ft	1.00
HP38C15CBL-QC	$46.75					15	12 ft	1.30
HP38C20CBL-QC	$52.75					20	16 ft	1.75

Dimensions

inches [mm]



Dimensions in inches [mm]

TABLE 1							
PART NUMBER	DIM A (OVERALL LENGTH)	DIM B (TAIL)	DIM C (COMPRESSED COIL)	DIM D (TAIL)	DIM E (COIL O.D.)	DIM F (CONN.)	DIM G (CONN.)
HP14C10CBL	31.13[790.7]	20.00[508.0]	7.13[181.0]	4.0[101.6]	2.00[50.8]	1.50[38.1]	1.97[50.0]
HP14C15CBL	35.63[905.0]	20.00[508.0]	11.63[295.4]	4.0[101.6]	2.00[50.8]	1.50[38.1]	1.97[50.0]
HP14C20CBL	39.75[1009.7]	20.00[508.0]	15.75[400.1]	4.0[101.6]	2.00[50.8]	1.50[38.1]	1.97[50.0]
HP38C10CBL	31.00[787.4]	20.00[508.0]	7.00[177.8]	4.0[101.6]	3.13[79.5]	1.80[45.7]	2.20[55.9]
HP38C15CBL	36.00[914.4]	20.00[508.0]	12.00[304.8]	4.0[101.6]	3.13[79.5]	1.80[45.7]	2.20[55.9]
HP38C20CBL	40.00[1016.0]	20.00[508.0]	16.00[406.4]	4.0[101.6]	3.13[79.5]	1.80[45.7]	2.20[55.9]

Polyurethane Coiled Hose

Dimensions

inches [mm]

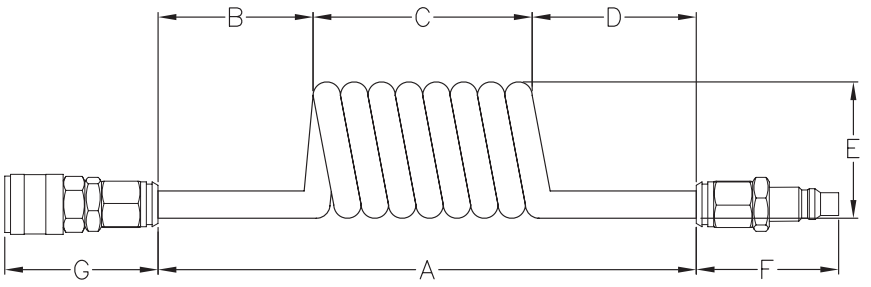
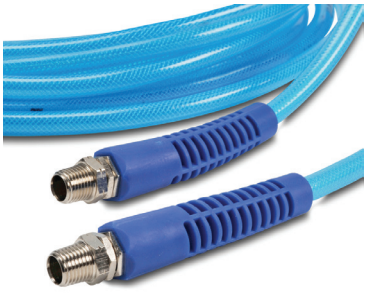


TABLE 1							
PART NUMBER	DIM A (OVERALL LENGTH)	DIM B (TAIL)	DIM C (COMPRESSED COIL)	DIM D (TAIL)	DIM E (COIL O.D.)	DIM F (CONN.)	DIM G (CONN.)
HP14C10CBL–QC	31.13[790.7]	20.00[508.0]	7.13[181.0]	4.0[101.6]	2.00[50.8]	1.95[49.5]	2.10[53.3]
HP14C15CBL–QC	35.63[905.0]	20.00[508.0]	11.63[295.4]	4.0[101.6]	2.00[50.8]	1.95[49.5]	2.10[53.3]
HP14C20CBL–QC	39.75[1009.7]	20.00[508.0]	15.75[400.1]	4.0[101.6]	2.00[50.8]	1.95[49.5]	2.10[53.3]
HP38C10CBL–QC	31.00[787.4]	20.00[508.0]	7.00[177.8]	4.0[101.6]	3.13[79.5]	2.30[58.4]	2.36[59.9]
HP38C15CBL–QC	36.00[914.4]	20.00[508.0]	12.00[304.8]	4.0[101.6]	3.13[79.5]	2.30[58.4]	2.36[59.9]
HP38C20CBL–QC	40.00[1016.0]	20.00[508.0]	16.00[406.4]	4.0[101.6]	3.13[79.5]	2.30[58.4]	2.36[59.9]

Reinforced Polyurethane Hose



NITRA™ reinforced polyurethane (PUR) hose features a sturdy nylon braid between the polyurethane inner and outer layers. Contamination of air systems caused by rubber hose breakdown is significantly reduced by using NITRA PUR hose. CBL2 and CBL3 hoses have one rigid and one swivel fitting and are specified by inside diameter. CBL5 and CBL6 hoses have one Male and one Female industrial interchange quick disconnect fitting.

Features

- 1/4" and 3/8" inside diameters (25 and 50 foot package lengths available)
- Clear blue color
- Lighter weight compared to rubber hose
- Strong, flexible and kink resistant
- Made in USA

Reinforced Polyurethane Hose Specifications			
Working Pressure (psi) @ 68°F	210	***Temp. Range***	-40°F to +155°F (-40°C to +68°C)
Burst Pressure (psi) @ 68°F	630	***Hardness***	Shore A 85

Part Number	*Price*	*Hose I.D. (in)*	*Hose O.D. (in)*	*Wall Thickness (in)*	*Fittings*	*Min. Bend Radius*	*PKG Length*	*Package Weight (lbs)*
HBP14-25CBL2	$12.00	1/4	3/8	0.06	1/4 in MNPT	1.00"	25 ft	1.15
HBP14-50CBL2	$21.00						50 ft	2.00
HBP38-25CBL2	$20.50	3/8	9/16	0.09	1/4 in MNPT	1.63"	25 ft	2.50
HBP38-50CBL2	$35.50						50 ft	4.25
HBP38-25CBL3	$23.00				3/8 in MNPT		25 ft	2.50
HBP38-50CBL3	$38.00						50 ft	4.50
HBP14-25CBL5	$29.00	1/4	3/8	0.06	1/4 in QD	1.00	25 ft	1.15
HBP14-50CBL5	$38.50						50 ft	2.00
HBP38-25CBL6	$39.50	3/8	9/16	0.09	3/8 in QD	1.63	25 ft	2.50
HBP38-50CBL6	$53.75						50 ft	4.5

Dimensions

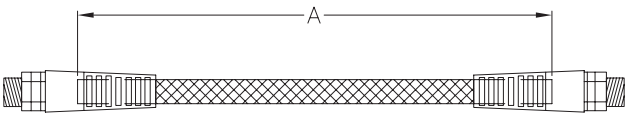


TABLE 1	
PART NUMBER	DIM A (OVERALL LENGTH)
HBP14–25CBL2	25'
HBP14–50CBL2	50'
HBP38–25CBL2	25'
HBP38–50CBL2	50'
HBP38–25CBL3	25'
HBP38–50CBL3	50'

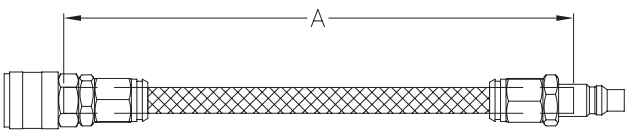
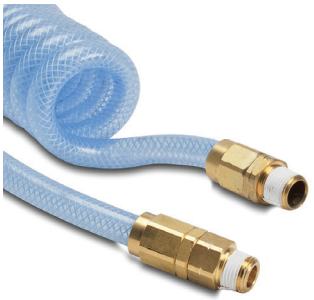


TABLE 1	
PART NUMBER	DIM A (OVERALL LENGTH)
HBP14–25CBL5	25'
HBP14–50CBL5	50'
HBP38–25CBL6	25'
HBP38–50CBL6	50'

Reinforced Polyurethane Coiled Hose



NITRA™ reinforced coiled hose has a sturdy nylon braid between the polyurethane inner and outer layers. Contamination of air systems caused by rubber hose breakown is significantly reduced by using NITRA PUR hose. Standard hoses have one rigid and one swivel fitting and are specified by inside diameter. QC hoses have one Male and one Female industrial interchange quick disconnect fitting.

Features

- 1/4" and 3/8" inside diameters and two fitting sizes available
- 8, 12, and 16 foot working lengths
- Clear blue color
- Shore A 85 hardness
- Strong, flexible and kink resistant
- Made in USA

Reinforced Polyurethane Coiled Hose Specifications			
Working Pressure (psi) @ 68°F	310	***Temp. Range***	-40°F to +120°F (-40°C to +49°C)
Burst Pressure (psi) @ 68°F	930	***Hardness***	Inner layer: Shore A 98 Outer layer: Shore A 85

Part Number	*Price*	*Hose I.D. (in)*	*Hose O.D. (in)*	*Wall Thickness (in)*	*FTG Size*	*Number of Coils*	*Working Length*	*Package Weight (lbs)*
HBP14C10CBL	$23.50	1/4	3/8	0.06	1/4 in MNPT	10	8 ft	0.55
HBP14C15CBL	$30.00					15	12 ft	0.65
HBP14C20CBL	$36.50					20	16 ft	0.85
HBP38C10CBL	$48.00	3/8	9/16	0.09	3/8 in MNPT	10	8 ft	1.00
HBP38C15CBL	$58.00					15	12 ft	1.30
HBP38C20CBL	$70.00					20	16 ft	1.75
HBP14C10CBL-QC	$41.50	1/4	3/8	0.06	1/4 in QD	10	8 ft	0.55
HBP14C15CBL-QC	$48.25					15	12 ft	0.65
HBP14C20CBL-QC	$55.00					20	16 ft	0.85
HBP38C10CBL-QC	$58.75	3/8	9/16	0.09	3/8 in QD	10	8 ft	1.00
HBP38C15CBL-QC	$69.25					15	12 ft	1.30
HBP38C20CBL-QC	$80.50					20	16 ft	1.75

Dimensions

inches [mm]

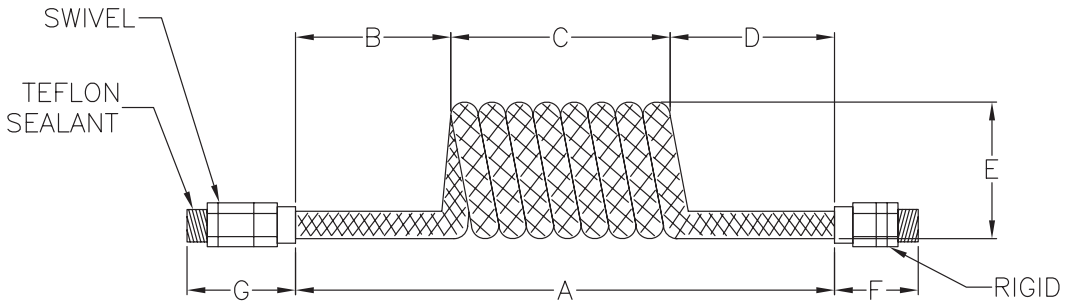


TABLE 1							
PART NUMBER	DIM A (OVERALL LENGTH)	DIM B (TAIL)	DIM C (COMPRESSED COIL)	DIM D (TAIL)	DIM E (COIL O.D.)	DIM F (CONN.)	DIM G (CONN.)
HBP14C10CBL	35.75[908.1]	20.00[508.0]	11.75[298.5]	4.0[101.6]	1.63[41.1]	1.50[38.1]	1.97[50.0]
HBP14C15CBL	42.75[1085.9]	20.00[508.0]	18.75[476.3]	4.0[101.6]	1.63[41.1]	1.50[38.1]	1.97[50.0]
HBP14C20CBL	50.50[1282.7]	20.00[508.0]	26.5[673.1]	4.0[101.6]	1.63[41.1]	1.50[38.1]	1.97[50.0]
HBP38C10CBL	40.00[1016.0]	20.00[508.0]	16.00[406.4]	4.0[101.6]	2.38[60.5]	1.80[45.7]	2.20[55.9]
HBP38C15CBL	47.25[1200.2]	20.00[508.0]	23.25[590.6]	4.0[101.6]	2.38[60.5]	1.80[45.7]	2.20[55.9]
HBP38C20CBL	52.25[1327.2]	20.00[508.0]	28.25[717.6]	4.0[101.6]	2.38[60.5]	1.80[45.7]	2.20[55.9]

Reinforced Polyurethane Coiled Hose

Dimensions

inches [mm]

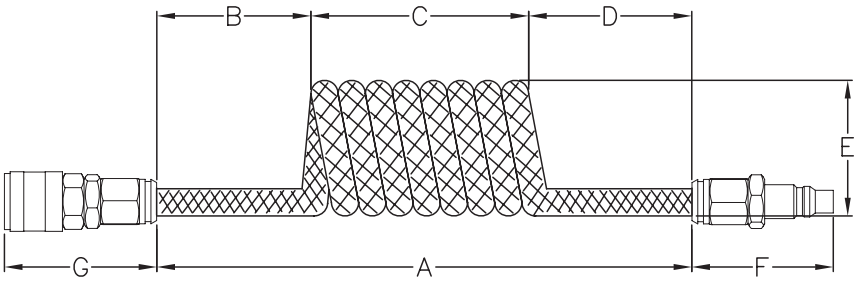
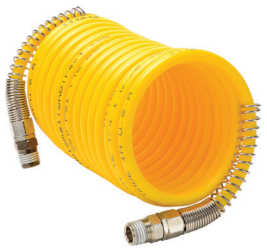


TABLE 1							
PART NUMBER	DIM A (OVERALL LENGTH)	DIM B (TAIL)	DIM C (COMPRESSED COIL)	DIM D (TAIL)	DIM E (COIL O.D.)	DIM F (CONN.)	DIM G (CONN.)
HBP14C10CBL–QC	35.75[908.1]	20.00[508.0]	11.75[298.5]	4.0[101.6]	1.63[41.1]	1.95[49.5]	2.10[53.3]
HBP14C15CBL–QC	42.75[1085.9]	20.00[508.0]	18.75[476.3]	4.0[101.6]	1.63[41.1]	1.95[49.5]	2.10[53.3]
HBP14C20CBL–QC	50.50[1282.7]	20.00[508.0]	26.5[673.1]	4.0[101.6]	1.63[41.1]	1.95[49.5]	2.10[53.3]
HBP38C10CBL–QC	40.00[1016.0]	20.00[508.0]	16.00[406.4]	4.0[101.6]	2.38[60.5]	2.30[58.4]	2.36[59.9]
HBP38C15CBL–QC	47.25[1200.2]	20.00[508.0]	23.25[590.6]	4.0[101.6]	2.38[60.5]	2.30[58.4]	2.36[59.9]
HBP38C20CBL–QC	52.25[1327.2]	20.00[508.0]	28.25[717.6]	4.0[101.6]	2.38[60.5]	2.30[58.4]	2.36[59.9]

Nylon Coiled Hose



NITRA™ nylon coiled hose is an excellent choice for industrial environments requiring higher working pressure and higher temperature/chemical resistance. Manufactured from Nylon 12, these hoses include spring guards to resist kinking and have male nickle-plated brass NPT swivel fittings on each end.

Features

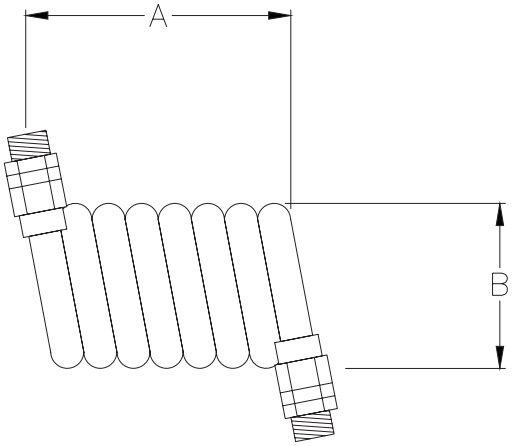
- Heavy duty nylon has low moisture absorption rate
- Coiled hose allows operator freedom of movement and uncluttered work area
- Lightweight and economical
- Replacement swivel fittings available
- Made in USA

Nylon Coiled Hose Specifications

Burst Pressure	800psi (57bar)	***Temp. Range***	-60°F to +200°F (-52°C to +93°C)
		Hardness	Shore D 70

Part Number	*Price*	*Hose I.D.*	*Hose O.D.*	*Wall Thickness*	*Fittings*	*Number of Coils*	*Working Length*	*Working Pressure (psi) @ 68°F*	*A (in.)*	*B (in.)*	*Package Weight (lbs)*
HN14C14-12YEL	$12.50	1/4	5/16	0.03	(2) 1/4 in MNPT Swivel	15	10 ft	250	4.75	3.625	0.4
HN14C14-25YEL	$16.50					29	20 ft		9.5		0.5
HN14C14-50YEL	$24.50					58	40 ft		19		0.9
HN38C14-12YEL	$22.50	3/8	0.47	0.05		15	10 ft	225	4.5	6.0	0.7
HN38C14-25YEL	$31.00					28	20 ft		9.0		1.5
HN38C14-50YEL	$47.50					59	42 ft		18.0		1.8
HN38C38-12YEL	$24.00				(2) 3/8 in MNPT Swivel	15	10 ft		4.5		0.8
HN38C38-25YEL	$32.50					28	20 ft		9.0		1.2
HN38C38-50YEL	$50.00					59	42 ft		18.0		2.0
HN12C12-12YEL	$35.50	1/2	5/8	0.06	(2) 1/2 in MNPT Swivel	8	10 ft	170	6.0	7.5	1.3
HN12C12-25YEL	$48.00					15	20 ft		10.5		1.9
HN12C12-50YEL	$73.00					29	44 ft		19.5		3.0

Dimensions



Nylon Coiled Hose Kit



NITRA™ nylon coiled hose kits allow users to make custom length coiled hoses. Each kit contains enough brass male NPT swivel fittings to make five hoses. Manufactured from Nylon 12 just like our pre-assembled coiled hoses. No special tools are required to install fittings.

Features

- Same hose and fittings as pre-assembled hoses
- Custom lengths allow for optimum hose sizing
- Lightweight and economical
- Made in USA

Nylon Coiled Hose Kits			
Part Number	***Price***	***Description***	***Package Weight (lbs)***
HN14C14YEL-KIT	$63.00	NITRA pneumatic coiled hose kit, includes (10) 1/4 inch male NPT nickel-plated brass swivel connections, 100 ft. yellow Nylon 12 coiled hose, 1/4 inch inside diameter	2.5
HN38C14YEL-KIT	$124.00	NITRA pneumatic coiled hose kit, includes (10) 1/4 inch male NPT nickel-plated brass swivel connections, 100 ft. yellow Nylon 12 coiled hose, 3/8 inch inside diameter	5.3
HN38C38YEL-KIT	$128.00	NITRA pneumatic coiled hose kit, includes (10) 3/8 inch male NPT nickel-plated brass swivel connections, 100 ft. yellow Nylon 12 coiled hose, 3/8 inch inside diameter	5.3
HN12C12YEL-KIT	$186.00	NITRA pneumatic coiled hose kit, includes (10) 1/2 inch male NPT nickel-plated brass swivel connections, 100 ft. yellow Nylon 12 coiled hose, 1/2 inch inside diameter	8.0

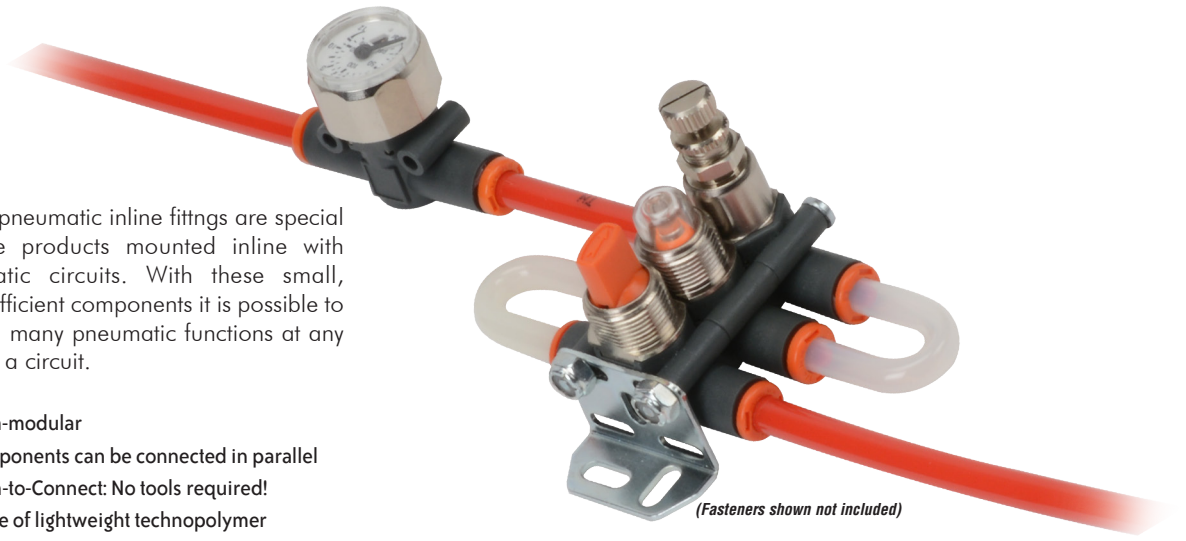
Nylon Coiled Hose Kit Accessories



Nylon Coiled Hose Kit Accessories*			
Part Number	***Price***	***Description***	***Package Weight (lbs)***
HS14-14M-R	$11.00	NITRA pneumatic hose fitting, replacement, nickel-plated brass, 1/4 inch inside diameter, 1/4 inch male NPT swivel connections	0.1
HS38-14M-R	$14.50	NITRA pneumatic hose fitting, replacement, nickel-plated brass, 3/8 inch inside diameter, 1/4 inch male NPT swivel connections	0.2
HS38-38M-R	$16.50	NITRA pneumatic hose fitting, replacement, nickel-plated brass, 3/8 inch inside diameter, 3/8 inch male NPT swivel connections	0.2
HS12-12M-R	$26.50	NITRA pneumatic hose fitting, replacement, nickel-plated brass, 1/2 inch inside diameter, 1/2 inch male NPT swivel connections	0.3

**** For nylon hose only***

Special Purpose Push-to-Connect Pneumatic Fittings


(Fasteners shown not included)

NITRA pneumatic inline fittngs are special purpose products mounted inline with pneumatic circuits. With these small, highly efficient components it is possible to perform many pneumatic functions at any point in a circuit.

- Ultra-modular
- Components can be connected in parallel
- Push-to-Connect: No tools required!
- Made of lightweight technopolymer
- Stem adapters connect push-to-connect fittings to NPT ports



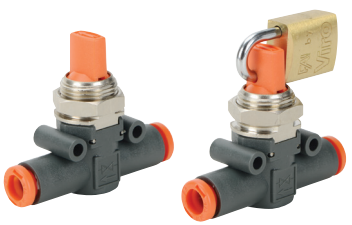
Inline Pressure Regulators
from $20.25



Inline Pressure Gauges
from $17.75



Inline Pressure Indicators
from $11.75



Inline Manual Shutoff Valves
from $11.25



Inline Quick Exhaust Valves
from $8.75



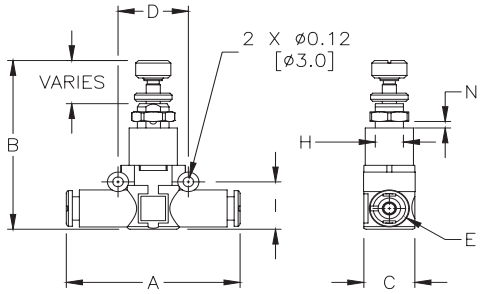
Stem Adapters
from $3.25

Inline Pressure Regulators and Gauges

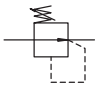
NITRA pneumatic push-to-connect miniature pressure regulators have a technopolymer body and nickel-plated brass internal parts. Downstream air pressure can be easily adjusted to a range of 15 to 120 psi with a built-in relief valve to exhaust over-pressure. These regulators can be installed in series or parallel with other special inline fittings.

Features

- Works with flexible pneumatic tubing
- Easily added to existing circuits
- Ideal for use in secondary branches of a pneumatic system
- Use with PGU series pressure gauges for precise control
- Two-year warranty







Pressure Regulator

NITRA® Inline Pressure Regulators *Inch Sizes - dimensions in inches (in.)*														
Part No.	*Price*	*Tube Size*	*ø*	*A*	*B*	*C*	*D*	*E*	*H*	*I*	*N*	*Inlet Pressure Range (psi)*	*Flow Rate (scfm)**	*Package Weight (lbs)*
PRU14	$20.25	1/4 in. x 1/4 in.	1/4	1.85	1.81-2.05	0.58	0.79	0.45	M9x0.75	0.57	0.18	29-145	5.3	0.1
PRU516	$22.00	5/16 in. [8mm] x 5/16 in. [8mm]	5/16	2.18	2.05-2.28	0.74	0.94	0.54	M11x1	0.74	0.15	29-145	9.2	0.1

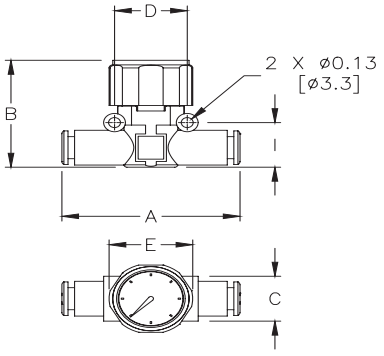
Flow conditions: 90psi inlet pressure, 14.5 psi ΔP

See our website www.AutomationDirect.com for complete Engineering drawings.

NITRA pneumatic push-to-connect in-line pressure gauges have a technopolymer body and metal gauge casing. They install easily anywhere in a pneumatic circuit and have a range of 0 to 170 psi.

Features

- Works with flexible pneumatic tubing
- Easily added to existing circuits







Pressure Gauge

NITRA® Inline Pressure Gauges *Inch Sizes - dimensions in inches (in.)*											
Part No.	*Price*	*Tube Size*	*ø*	*A*	*B*	*C*	*D*	*E*	*I*	*Max Pressure (psi)*	*Package Weight (lbs)*
PGU14	$17.75	1/4 in. x 1/4 in.	1/4	1.85	1.38	0.58	0.79	0.45	0.57	174	0.1
PGU516	$18.75	5/16 in. [8mm] x 5/16 in. [8mm]	5/16	2.18	1.61	0.74	0.94	0.54	0.74	174	0.1

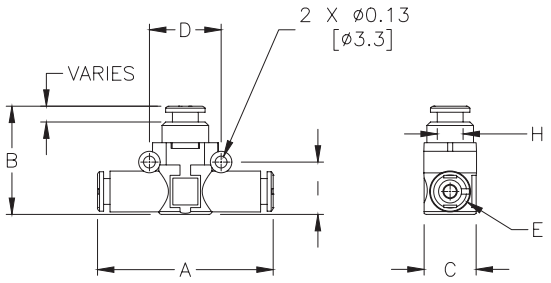
See our website www.AutomationDirect.com for complete Engineering drawings.

Inline Pressure Indicators and Quick Exhaust Valves

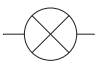
NITRA pneumatic push-to-connect inline pressure indicators have a technopolymer body and nickel-plated brass internal parts, with a range of 29 to 145 psi. When pressure is off, the indicator is clear. When pressure is on, a colored indicator appears.

Features

- Works with flexible pneumatic tubing
- Easily added to existing circuits
- Green or orange indicator buttons
- Two-year warranty







Pressure Indicator

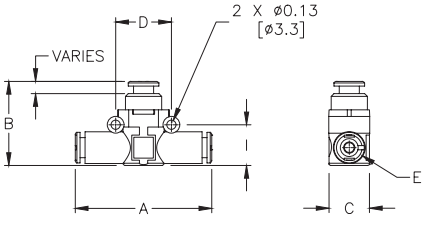
NITRA® Inline Pressure Indicators												
Inch Sizes - dimensions in inches (in.)												
Part No.	*Price*	*Tube Size*	*Indicator Color*	*ø*	*A*	*B*	*C*	*D*	*H*	*I*	*Operating Pressure Range (psi)*	*Package Weight (lbs)*
PMU14A	$11.75	1/4 in. x 1/4 in.	Orange	1/4	1.85	1.46	0.58	0.79	M15x1	0.57	29-145	0.1
PMU14G	$11.75	1/4 in. x 1/4 in.	Green	1/4	1.85	1.46	0.58	0.79	M15x1	0.57	29-145	0.1
PMU516A	$12.50	5/16 in. [8mm] x 5/16 in. [8mm]	Orange	5/16	2.18	1.61	0.74	0.94	M15x1	0.74	29-145	0.1
PMU516G	$12.50	5/16 in. [8mm] x 5/16 in. [8mm]	Green	5/16	2.18	1.61	0.74	0.94	M15x1	0.74	29-145	0.1

See our website www.AutomationDirect.com for complete Engineering drawings.

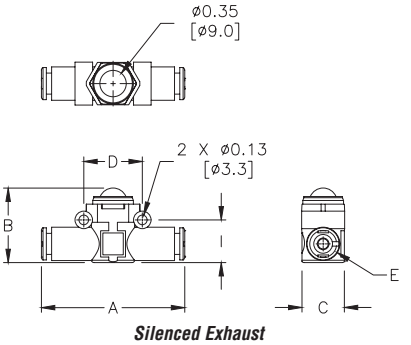
NITRA pneumatic push-to-connect in-line quick exhaust valves have a technopolymer body and nickel-plated brass valve insert, with a range of 7 to 150 psi. Normal flow is from inlet to outlet ports. Reversing flow from outlet is directed to exhaust port. These valve are ideal for use with pneumatic actuators that require a very fast stroke speed.

Features

- Works with flexible pneumatic tubing
- Easily added to existing circuits
- Ideal for use with fast stroke air cylinders
- Two-year warranty

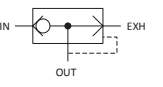


Conveyed Exhaust



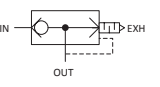
Silenced Exhaust





Conveyed Exhaust





Silenced Exhaust

NITRA® Inline Quick Exhaust Valves													
Inch Sizes - dimensions in inches (in.)													
Part No.	*Price*	*Tube Size*	*Exhaust*	*A*	*B*	*C*	*D*	*E*	*I*	*Inlet Pressure Range (psi)*	*Inlet Flow Rate (scfm)**	*Exhaust Flow Rate (scfm)**	*Package Weight (lbs)*
QEU14	$8.75	1/4 in. x 1/4 in. x 1/4 in.	Conveyed	1.85	1.14	0.58	0.79	0.45	0.57	14.5-145	9.5	24.7	0.1
QEU516	$9.00	5/16 in. [8mm] x 5/16 in. [8mm] x 5/16 in. [8mm]	Conveyed	2.18	1.37	0.74	0.94	0.54	0.74	14.5-145	14	35.3	0.1
QEU14-S	$9.00	1/4 in. x 1/4 in.	Silenced	1.85	1.0	0.58	0.79	0.45	0.57	14.5-145	9.5	24.7	0.1
QEU516-S	$10.00	5/16 in. x 5/16 in.	Silenced	2.18	1.24	0.74	0.94	0.54	0.74	14.5-145	14	35.3	0.1

**Flow conditions: 90psi inlet pressure, 14.5 psi ΔP*

See our website www.AutomationDirect.com for complete Engineering drawings.

Inline Manual Shutoff Valves - 2-Way/ 3-Way Locking/Non-Locking



Non-Locking Valve

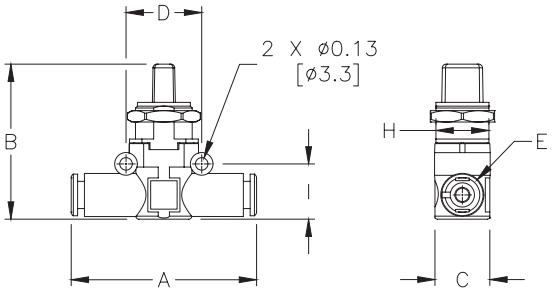


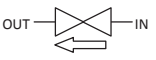
Locking Valve

NITRA pneumatic push-to-connect in-line hand valves have a technopolymer body and nickel-plated brass valve insert, with a range of 0 to 150 psi. Both 2-way and 3-way valves are available with or without locking capability. 3-way valves relieve pressure downstream when in the closed position.

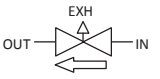
Features

- Works with flexible pneumatic tubing
- Easily added to existing circuits
- 2-way and 3-way valves available
- Lockable valves keep valve in closed position during maintenance (Note: Valve can only be locked in closed position)
- Two-year warranty





2-Way Valve



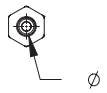
3-Way Valve

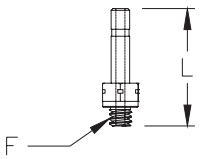
NITRA® Inline Manual Shutoff Valves													
Inch Sizes - dimensions in inches (in.)													
Part No.	***Price***	***Tube Size***	***Position***	***A***	***B***	***C***	***D***	***E***	***H***	***I***	***Max Pressure (psi)***	***Flow Rate (scfm)****	***Package Weight (lbs)***
HVU14-2	$11.25	1/4 in.x 1/4 in.	2-way (non-locking)	1.85	1.61	0.58	0.79	0.45	M15x1	0.55	145	9.9	0.1
HVU14-3	$11.25	1/4 in. x 1/4 in.	3-way (non-locking)										0.1
HVU516-2	$12.00	5/16 in. [8mm] x 5/16 in. [8mm]	2-way (non-locking)	2.18	1.81	0.74	0.94	0.54	M15x1	0.59	145	16.6	0.1
HVU516-3	$12.00	5/16 in. [8mm] x 5/16 in. [8mm]	3-way (non-locking)										0.1
HVU14-2L	$19.00	1/4 in. x 1/4 in.	2-way (locking)	1.85	1.61	0.58	0.79	0.45	M15x1	0.55	145	9.9	0.1
HVU14-3L	$25.00	1/4 in. x 1/4 in.	3-way (locking)										0.1
HVU516-2L	$20.25	5/16 in. [8mm] x 5/16 in. [8mm]	2-way (locking)	2.18	1.81	0.74	0.94	0.54	M15x1	0.59	145	16.6	0.2
HVU516-3L	$20.00	5/16 in. [8mm] x 5/16 in. [8mm]	3-way (locking)										0.2

Flow conditions: 90psi inlet pressure, 14.5 psi ΔP

See our website www.AutomationDirect.com for complete Engineering drawings.

Pneumatic Stem Adapters and Special Purpose Fitting Accessories





NITRA pneumatic stem adapters are used to easily connect push-to-connect fittings to a threaded port. They are made of nickel-plated brass. Five adapters per package.



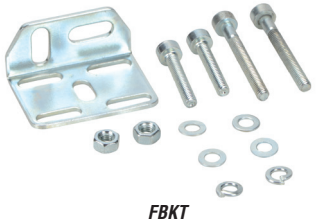
Features

- Works with push-to-connect fittings
- Nickel-plated brass
- Two-year warranty

NITRA® Stem Adapters *Inch Sizes - dimensions in inches (in.)*							
Part No.	***Price***	***Tube Size***	***ø***	***F***	***L***	***Package Weight (lbs)***	***Qty. per pack***
SA532-10N	$3.25	5/32 in. [4mm] x 10/32 UNF	5/32	10/32 UNF	0.99	0.1	5
SA532-18N	$3.50	5/32 in. [4mm] x 1/8 NPT	5/32	1/8 NPT	1.09	0.1	5
SA532-14N	$5.00	5/32 in. [4mm] x 1/4 NPT	5/32	1/4 NPT	1.19	0.2	5
SA14-10N	$4.25	1/4 in. x 10/32 UNF	1/4	10/32 UNF	1.01	0.1	5
SA14-18N	$3.25	1/4 in. x 1/8 NPT	1/4	1/8 NPT	1.11	0.1	5
SA14-14N	$3.50	1/4 in. x 1/4 NPT	1/4	1/4 NPT	1.20	0.2	5
SA14-38N	$4.00	1/4 in. x 3/8 NPT	1/4	3/8 NPT	1.31	0.3	5
SA516-18N	$3.25	5/16 in. [8mm] x 1/8 NPT	5/16	1/8 NPT	1.15	0.1	5
SA516-14N	$3.50	5/16 in. [8mm] x 1/4 NPT	5/16	1/4 NPT	1.24	0.2	5
SA516-38N	$5.25	5/16 in. [8mm] x 3/8 NPT	5/16	3/8 NPT	1.35	0.3	5

See our website www.AutomationDirect.com for complete Engineering drawings.

Special Purpose Fitting Accessories



FBKT

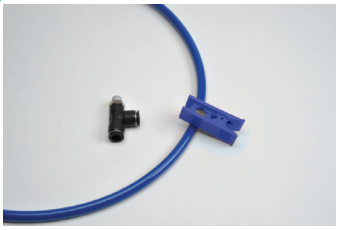


TU14

NITRA® Special Purpose Pneumatic Fitting Accessories			
Part No.	***Price***	***Description***	***Weight (lbs)***
FBKT	$2.25	NITRA pneumatic mounting bracket, fits all push-to-connect fittings, plated steel. Screws supplied with bracket are for mounting one fitting only.	0.1
TU14	$3.00	NITRA pneumatic U-tube, polyamide, 1/4 inch, works with push-to-connect fittings	0.1
TU516	$3.00	NITRA pneumatic U-tube, polyamide, 5/16 inch [8mm], works with push-to-connect fittings	0.1

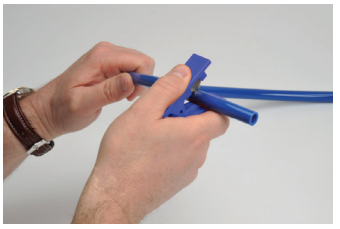
Pneumatic Fitting Instructions and Caution Information

Assembly Instructions

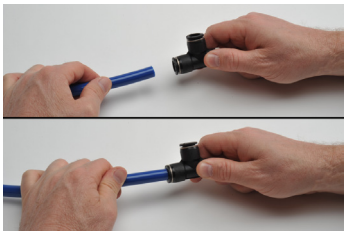


Prepare the **NITRA** tubing for cutting and make sure to have the proper tubing cutters like the **NITRA** TC-12 or TC-20.

(If cutting bonded tubing, carefully split the tubes with a knife and then pull apart as needed.)

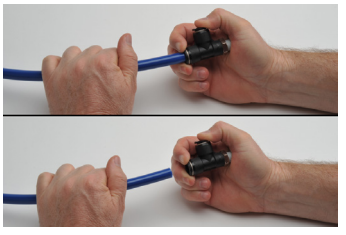


Cut the **NITRA** tubing at a right angle with the axis using a standard tube cutter. After cutting the tubing, make sure to check the cut end for an even cut with no debris.



Insertion of the **NITRA** tubing into fittings

- Make sure the tube is inserted fully into the fitting.
- Pull the tube gently to make sure it does not release.
- If the tube end is damaged or deformed, leakage or unexptected tube release may occur. Make sure to check tubing end thoroughly.



Removing the **NITRA** tubing from fittings

- Make sure the pressure in the tube is zero before releasing the tube from the fittings.
- To release the tubing, press the release ring at the end of the fitting and pull the tube with one hand.
- Inspect the released tube end and make a clean cut if it is damaged or deformed.

Common Precautions for Tubing and Fitting Products

Warnings:

- Do not use fittings with media other than air.
- Avoid installing with tubing under tension or with excessive bends.
- Do not use the product where weld spatters occur as fire may occur.
- Product damage or air leakage may occur at places where there is excessive rotation or vibration of the fittings.
- Use caution in water as the product may be damaged by surge pressure.
- Do not use the product where it is directly exposed to fluids such as cutting oil, lubricating oil, and coolant oil.

Cautions:

- Assemble the tubing only after cleaning away impurities such as dust and excess debris.
- Fitting products are recommended for air systems only. Avoid using for other purposes.
- When using tubing other than NITRA brand with NITRA fittings, be sure the tubing OD conforms to the tolerances in Table 1 below.

Table 1 - Tolerance of the Outer Diameter of the Tube					
Tube Specifications	ø5/32 [ø4]	ø1/4 [ø6]	ø5/16 [ø8]	ø3/8 [ø10]	ø1/2 [ø12]
Permissible tolerance	+ 0.005 [+/- 0.13]				

Pneumatic Tubing Cutter				
Part Number	***Description***	***Pcs/Pkg***	***Wt (lb)***	***Price***
TC-12	NITRA pneumatic tubing cutter for use with 1/8 to 1/2 inch and 4 to 12 mm outside diameter flexible plastic tubing.	1	0.1	$4.25
TC-20	NITRA pneumatic heavy duty tubing cutter for use with polyurethane, nylon and other flexible tubing up to 2 inch [50mm] outside diameter.	1	0.2	$7.25



TC-12



TC-20

Pneumatic Push-to-Connect Fittings

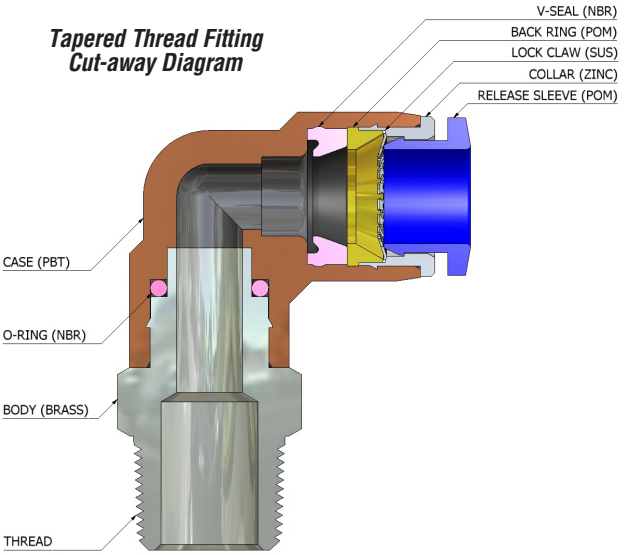
NITRA pneumatic push-to-connect fitting bodies are made of a strong thermoplastic (PBT) and have stainless steel tube gripping claws. Threaded components are made of nickel-plated brass and have pre-applied Teflon thread sealant (O-ring on #10-32, M5 and G threads). The bodies of elbow and tee fittings with threaded connections can be rotated after installation to allow for variations in piping direction. NITRA Polyurethane and Nylon 12 tubing is easily connected by simply inserting the tubing end into the fitting. To release the tubing, press the circular release ring and the tubing can be easily pulled out.

Features

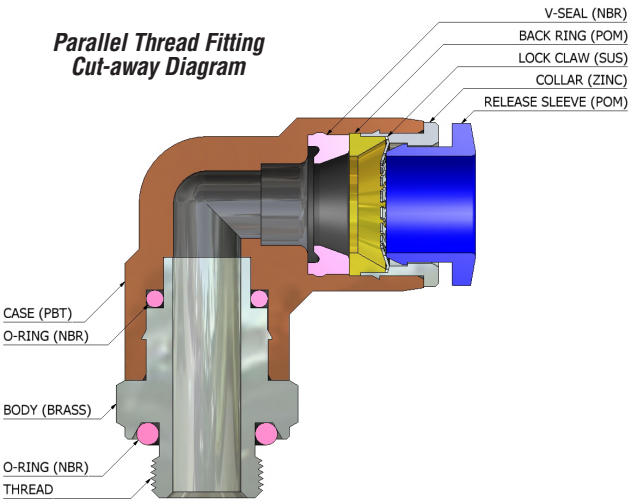
- Large selection of fitting configurations
- Inch and metric sizes available
- NPT, BSPT (R), and BSPP (G) threads available
- Tough thermoplastic bodies, stainless steel tube gripping claws, nickel-plated threads with pre-applied Teflon sealant (O-ring on #10-32, M5 and G threads)
- Threaded Elbow and Tee bodies can be rotated after installation
- Release rings are color coded to differentiate between inch and metric sizes
- For use with air only
- Working pressure: -29.5" Hg to 150 psi.
- Working temperature: 32 to 140°F (0 to 60°C)



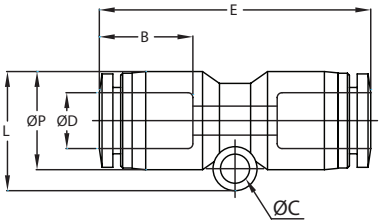
Tapered Thread Fitting Cut-away Diagram



Parallel Thread Fitting Cut-away Diagram



NITRA PNEUMATICS Pneumatic Push-to-Connect Fittings





Inch Fitting



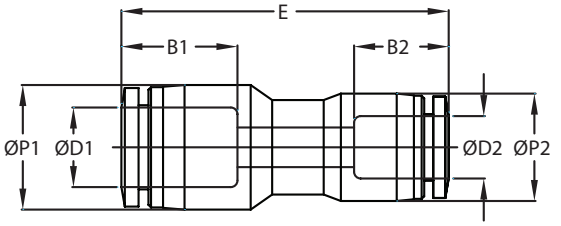
Metric Fitting

NITRA pneumatic push-to-connect union straight fitting with thermoplastic (PBT) body and stainless steel tube gripping claws. For use with polyurethane or nylon tubing. Five fittings per package.

NITRA Union Straight											
Inch Sizes - dimensions in inches (in.)											
Part No.	*Price*	*Size*	*øD*	*øP*	*L*	*E*	*øC*	*B*	*Orifice*	*Package Weight (lbs)*	*Qty. per pack*
*US18**	$7.00	1/8 in.	1/8	0.30	N/A	0.93	N/A	0.44	0.09	0.2	5
*US532***	$5.75	5/32 in (4 mm)	5/32	0.41	0.50	1.35	0.13	0.59	0.12	0.2	5
US14	$6.25	1/4 in.	1/4	0.51	0.64	1.45	0.14	0.66	0.19	0.2	5
US38	$8.00	3/8 in.	3/8	0.69	0.85	1.67	0.18	0.79	0.31	0.3	5
US12	$10.00	1/2 in.	1/2	0.83	0.96	1.92	0.18	0.90	0.35	0.3	5
Metric Sizes - dimensions in millimeters (mm)											
US6M	$6.00	6 mm	6	12.5	14.7	36.5	3.3	16.4	4.0	0.2	5
US8M	$7.25	8 mm (5/16 in.)	8	14.5	17.6	40.1	4.3	18.7	6.5	0.2	5
US10M	$8.25	10 mm	10	17.5	20.0	43.4	4.3	20.1	8.0	0.4	5
US12M	$9.75	12 mm	12	20.5	23.3	48.3	4.3	22.8	10.0	0.4	5
US16M	$21.75	16 mm	16	25.5	25.5	51.6	4.3	24.1	13.0	0.4	5

US18 does not have mounting sleeve

****US532 has blue release rings***





Inch Fitting

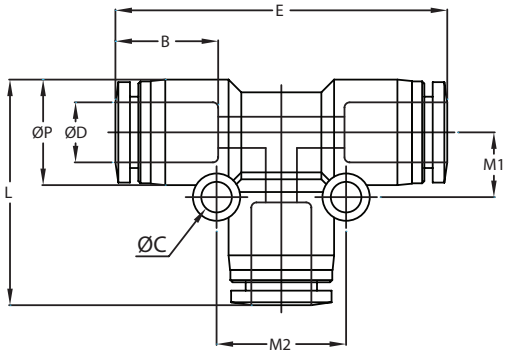


Metric Fitting

NITRA pneumatic push-to-connect union reducer fitting with thermoplastic (PBT) body and stainless steel tube gripping claws. For use with polyurethane or nylon tubing. Five fittings per package.

NITRA Union Reducer												
Inch Sizes - dimensions in inches (in.)												
Part No.	*Price*	*Size*	*øD1*	*øD2*	*øP1*	*øP2*	*E*	*B1*	*B2*	*Orifice*	*Package Weight (lbs)*	*Qty. per pack*
UR532-18	$8.25	5/32 in. (4 mm) x 1/8 in.	5/32	1/8	0.33	0.30	0.95	0.46	0.44	0.09	0.1	5
UR14-18	$8.50	1/4 in. x 1/8 in.	1/4	1/8	0.44	0.30	1.06	0.53	0.44	0.09	0.1	5
UR14-532	$7.25	1/4 in. x 5/32 in. (4 mm)	1/4	5/32	0.51	0.41	1.40	0.66	0.59	0.13	0.1	5
UR516-14	$7.00	5/16 in. x 1/4 in.	5/16	1/4	0.57	0.51	1.50	0.72	0.66	0.20	0.2	5
UR38-14	$8.75	3/8 in. x 1/4 in.	3/8	1/4	0.69	0.51	1.56	0.79	0.66	0.20	0.2	5
UR38-516	$9.25	3/8 in. x 5/16 in.	3/8	5/16	0.69	0.57	1.61	0.79	0.72	0.26	0.3	5
UR12-38	$12.50	1/2 in. x 3/8 in.	1/2	3/8	0.83	0.69	1.78	0.90	0.79	0.31	0.4	5
Metric Sizes - dimensions in millimeters (mm)												
UR6M-4M	$8.50	6 mm x 4 mm (5/32 in.)	6.0	4.0	12.5	10.5	35.2	16.4	14.9	3.0	0.1	5
UR8M-6M	$8.75	8 mm (5/16 in.) x 6 mm	8.0	6.0	14.5	12.5	38.1	18.7	16.4	4.0	0.2	5
UR10M-8M	$9.25	10 mm x 8 mm (5/16 in.)	10.0	8.0	17.5	14.5	40.3	20.1	18.7	6.5	0.3	5
UR12M-10M	$12.00	12 mm x 10 mm	12.0	10.0	20.5	17.5	43.8	22.8	20.1	8.0	0.3	5
UR16M-12M	$16.25	16 mm x 12 mm	16.0	12.0	25.5	20.5	49.9	24.1	22.8	10.0	0.4	5

Pneumatic Push-to-Connect Fittings



NITRA pneumatic push-to-connect union tee fitting with thermoplastic (PBT) body and stainless steel tube gripping claws. For use with polyurethane or nylon tubing. Five fittings per package.



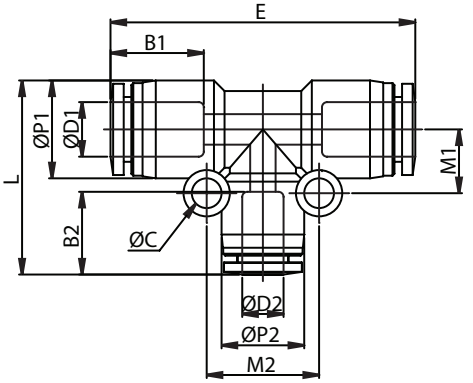
Inch Fitting



Metric Fitting

NITRA Union Tee													
Inch Sizes - dimensions in inches (in.)													
Part No.	***Price***	***Size***	***øD***	***øP***	***L***	***E***	***øC***	***B***	***M1***	***M2***	***Orifice***	***Package Weight (lbs)***	***Qty. per pack***
UT18	$11.50	1/8 in.	1/8	0.30	0.53	0.53	0.13	0.44	0.21	0.42	0.09	0.1	5
UT532*	$8.00	5/32 in. (4 mm)	5/32	0.41	0.94	1.43	0.13	0.59	0.25	0.50	0.12	0.1	5
UT14	$8.25	1/4 in.	1/4	0.51	1.09	1.68	0.14	0.66	0.32	0.65	0.19	0.2	5
UT38	$9.75	3/8 in.	3/8	0.69	1.35	2.02	0.18	0.79	0.43	0.87	0.31	0.4	5
UT12	$13.00	1/2 in.	1/2	0.83	1.60	2.38	0.18	0.90	0.50	1.00	0.35	0.4	5
Metric Sizes - dimensions in millimeters (mm)													
UT6M	$8.00	6 mm	6	12.5	27.3	41.5	3.3	16.4	7.7	15.4	5.0	0.2	5
UT8M	$9.00	8 mm (5/16 in.)	8	14.5	31.0	45.6	4.3	18.7	8.9	17.8	6.5	0.2	5
UT10M	$10.00	10 mm	10	17.5	34.1	48.4	4.3	20.1	9.8	19.7	8.0	0.4	5
UT12M	$12.50	12 mm	12	20.5	40.1	57.3	4.3	22.8	13.2	26.3	10.0	0.4	5
UT16M	$19.75	16 mm	16	25.5	47.0	68.6	5.3	24.1	15.9	31.8	13.0	0.4	5

**** UT532 has blue release rings***



NITRA pneumatic push-to-connect union tee reducer fitting with thermoplastic (PBT) body and stainless steel tube gripping claws. For use with polyurethane or nylon tubing. Five fittings per package.



Inch Fitting



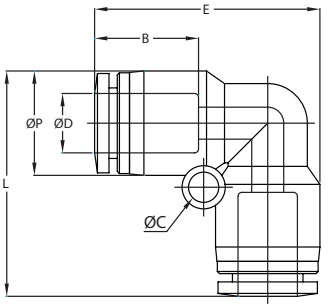
Metric Fitting

NITRA Union Tee Reducer																
Inch Sizes - dimensions in inches (in.)																
Part No.	***Price***	***Size***	***øD1***	***øD2***	***øP1***	***øP2***	***L***	***E***	***øC***	***B1***	***B2***	***M1***	***M2***	***Orifice***	***Package Weight (lbs)***	***Qty. per pack***
UTR14-532	$8.50	1/4 in. x 5/32 in. (4 mm)	1/4	5/32	0.51	0.41	1.04	1.60	0.17	0.66	0.59	0.32	0.57	0.13	0.2	5
UTR516-14	$9.00	5/16 in. x 1/4 in.	5/16	1/4	0.57	0.51	0.89	0.89	0.18	0.72	0.66	0.38	0.69	0.20	0.2	5
UTR38-14	$11.00	3/8 in. x 1/4 in.	3/8	1/4	0.69	0.51	1.26	1.90	0.18	0.79	0.66	0.43	0.69	0.20	0.3	5
UTR38-516	$9.75	3/8 in. x 5/16 in.	3/8	5/16	0.69	0.57	0.98	0.97	0.17	0.79	0.72	0.43	0.74	0.26	0.4	5
UTR12-38	$14.00	1/2 in. x 3/8 in.	1/2	3/8	0.83	0.69	1.44	2.30	0.18	0.90	0.79	0.50	0.87	0.31	0.4	5
Metric Sizes - dimensions in millimeters (mm)																
UTR6M-4M	$8.25	6 mm x 4 mm (5/32 in.)	6	4	12.5	10.4	25.4	41.6	3.3	16.4	14.9	7.9	13.8	3.0	0.2	5
UTR8M-6M	$9.50	8 mm (5/16 in.) x 6 mm	8	6	14.8	12.5	29.3	46.1	4.5	18.7	16.4	9.6	17.0	5.0	0.4	5
UTR10M-8M	$11.00	10 mm x 8 mm (5/16 in.)	10	8	17.5	14.5	33.9	49.4	4.3	20.1	18.7	10.9	18.8	6.5	0.4	5
UTR12M-10M	$14.00	12 mm x 10 mm	12	10	20.5	17.5	37.6	56.1	4.3	22.8	20.1	12.4	21.9	8.0	0.4	5
UTR16M-10M	$19.75	16 mm x 10 mm	16	10	25.5	17.5	42.8	61.6	5.3	24.1	20.1	15.9	22.8	8.0	0.4	5
UTR16M-12M	$19.75	16 mm x 12 mm	16	12	25.5	20.5	45.3	64.6	5.3	24.1	22.8	15.9	25.8	10.0	0.4	5

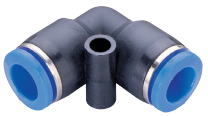
Pneumatic Push-to-Connect Fittings



Inch Fitting



NITRA pneumatic push-to-connect union elbow fitting with thermoplastic (PBT) body and stainless steel tube gripping claws. For use with polyurethane or nylon tubing. Five fittings per package.



Metric Fitting

NITRA Union Elbow											
Inch Sizes - dimensions in inches (in.)											
Part No.	*Price*	*Size*	*øD*	*øP*	*L*	*E*	*øC*	*B*	*Orifice*	*Package Weight (lbs)*	*Qty. per pack*
UL18	$7.00	1/8 in.	1/8	0.30	0.70	0.70	0.13	0.44	0.10	0.1	5
*UL532**	$5.25	5/32 in. (4 mm)	5/32	0.41	0.95	0.95	0.13	0.59	0.12	0.1	5
UL14	$5.75	1/4 in.	1/4	0.51	1.09	1.09	0.14	0.66	0.19	0.1	5
UL38	$8.00	3/8 in.	3/8	0.69	1.35	1.35	0.18	0.79	0.31	0.3	5
UL12	$9.00	1/2 in.	1/2	0.83	1.60	1.60	0.18	0.90	0.35	0.4	5
Metric Sizes - dimensions in millimeters (mm)											
UL6M	$5.50	6 mm	6	12.5	27.3	27.3	4.3	16.4	5.0	0.2	5
UL8M	$7.00	8 mm (5/16 in.)	8	14.5	31.3	31.3	4.3	18.7	7.0	0.2	5
UL10M	$8.25	10 mm	10	17.5	33.9	33.9	4.3	20.1	8.0	0.4	5
UL12M	$8.75	12 mm	12	20.5	38.8	38.8	4.3	22.8	10.0	0.4	5
UL16M	$21.75	16 mm	16	25.5	47.0	47.0	5.3	24.1	13.0	0.4	5

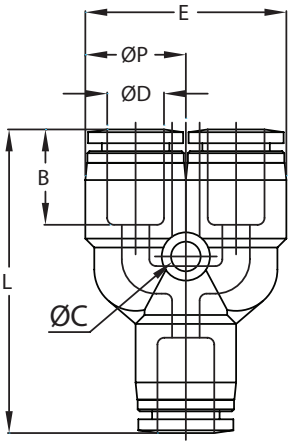
** UL532 has blue release rings*



Inch Fitting



Metric Fitting

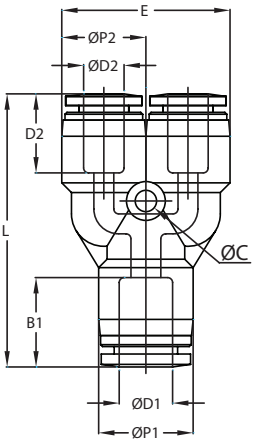


NITRA pneumatic push-to-connect union Y fitting with thermoplastic (PBT) body and stainless steel tube gripping claws. For use with polyurethane or nylon tubing. Five fittings per package.

NITRA Union Y											
Inch Sizes - dimensions in inches (in)											
Part No.	*Price*	*Size*	*øD*	*øP*	*L*	*E*	*øC*	*B*	*Orifice*	*Package Weight (lbs)*	*Qty. per pack*
UY18	$14.00	1/8 in.	1/8	0.30	1.06	0.60	0.13	0.44	0.09	0.1	5
*UY532**	$9.25	5/32 in. (4 mm)	5/32	0.41	1.43	0.83	0.13	0.63	0.10	0.1	5
UY14	$10.50	1/4 in.	1/4	0.51	1.57	1.02	0.13	0.70	0.16	0.1	5
UY38	$12.50	3/8 in.	3/8	0.69	1.85	1.38	0.18	0.78	0.31	0.4	5
UY12	$16.00	1/2 in.	1/2	0.83	2.16	1.65	0.18	0.90	0.41	0.4	5
Metric Sizes - dimensions in millimeters (mm)											
UY6M	$8.75	6 mm	6	13.0	39.3	26.0	3.3	17.6	5.2	0.2	5
UY8M	$9.25	8 mm (5/16 in.)	8	14.6	44.1	29.2	4.3	19.0	6.8	0.2	5
UY10M	$12.00	10 mm	10	17.5	47.1	35.0	4.5	19.8	8.0	0.4	5
UY12M	$15.50	12 mm	12	21.0	54.1	42.0	4.5	22.7	10.3	0.4	5

** UY532 has blue release rings*

Pneumatic Push-to-Connect Fittings



NITRA pneumatic push-to-connect union reducer Y fitting with thermoplastic (PBT) body and stainless steel tube gripping claws. For use with polyurethane or nylon tubing. Five fittings per package.

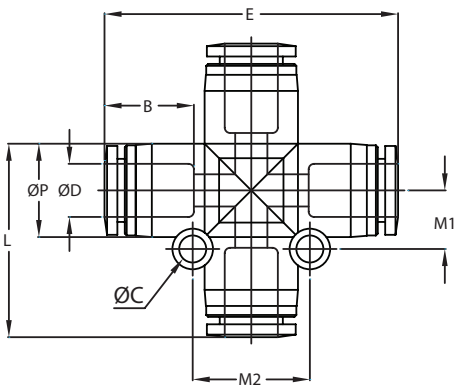


Inch Fitting



Metric Fitting

NITRA Union Reducer Y														
Inch Sizes - dimensions in inches (in.)														
Part No.	*Price*	*Size*	*øD1*	*øD2*	*øP1*	*øP2*	*L*	*E*	*øC*	*B1*	*D2*	*Orifice*	*Package Weight (lbs)*	*Qty. per pack*
URY532-18	$17.00	5/32 in. (4 mm) x 1/8 in.	5/32	1/8	0.34	0.30	1.08	0.60	0.13	0.46	0.44	0.09	0.1	5
URY14-18	$18.50	1/4 in. x 1/8 in.	1/4	1/8	0.44	0.30	1.15	0.60	0.13	0.53	0.44	0.09	0.1	5
URY14-532	$12.00	1/4 in. x 5/32 in. (4 mm)	1/4	5/32	0.51	0.41	1.50	0.83	0.13	0.70	0.63	0.13	0.1	5
URY516-14	$11.50	5/16 in. (8 mm) x 1/4 in.	5/16	1/4	0.57	0.51	1.66	1.02	0.13	0.74	0.70	0.20	0.2	5
URY38-14	$13.00	3/8 in. x 1/4 in.	3/8	1/4	0.69	0.51	1.70	1.02	0.13	0.78	0.70	0.20	0.2	5
URY38-516	$13.50	3/8 in. x 5/16 in. (8 mm)	3/8	5/16	0.69	0.57	1.75	1.14	0.17	0.78	0.74	0.20	0.3	5
URY12-38	$18.50	1/2 in. x 3/8 in.	1/2	3/8	0.83	0.69	2.00	1.38	0.18	0.90	0.78	0.28	0.3	5
Metric Sizes - dimensions in millimeters (mm)														
URY6M-4M	$11.50	6 mm x 4 mm (5/32 in.)	6	4	13.0	10.5	37.8	21.0	3.3	17.6	16.1	3.4	0.1	5
URY8M-6M	$12.50	8 mm (5/16 in.) x 6 mm	8	6	14.6	13.0	42.2	26.0	3.3	19.0	17.6	5.4	0.2	5
URY10M-8M	$13.50	10 mm x 8 mm (5/16 in.)	10	8	17.5	14.6	44.8	29.2	4.3	19.7	19.0	7.0	0.3	5
URY12M-10M	$18.00	12 mm x 10 mm	12	10	21.0	17.5	50.6	35.0	4.5	22.7	19.8	8.0	0.3	5



NITRA pneumatic push-to-connect union cross fitting with thermoplastic (PBT) body and stainless steel tube gripping claws. For use with polyurethane or nylon tubing. Five fittings per package.



Inch Fitting

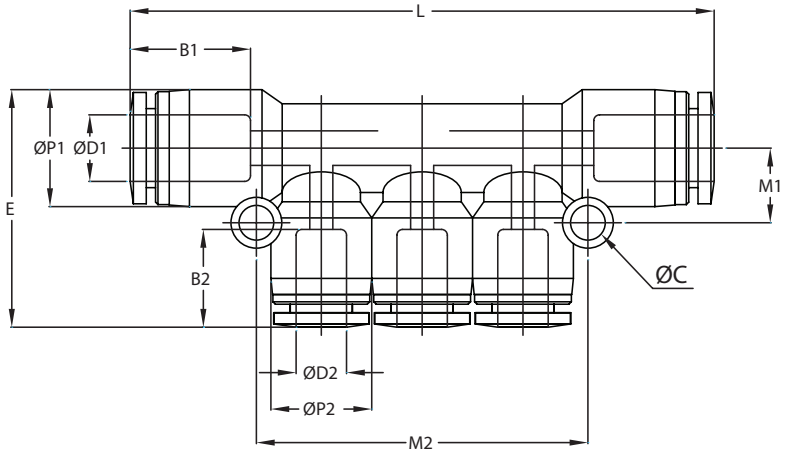


Metric Fitting

NITRA Union Cross												
Inch Sizes - dimensions in inches (in.)												
Part No.	*Price*	*Size*	*øD*	*øP*	*L*	*E*	*øC*	*B*	*M1*	*M2*	*Orifice*	*Package Weight (lbs)*	*Qty. per pack*
*UX532**	$13.50	5/32 in. (4 mm)	5/32	0.41	0.91	1.41	0.31	0.59	0.25	0.50	0.10	0.3	5
UX14	$14.50	1/4 in.	1/4	0.51	1.09	1.68	0.13	0.66	0.32	0.64	0.20	0.3	5
UX38	$19.00	3/8 in.	3/8	0.69	1.30	1.90	0.17	0.79	0.40	0.80	0.28	0.6	5
UX12	$21.00	1/2 in.	1/2	0.83	1.60	2.38	0.17	0.90	0.50	1.00	0.35	0.6	5
Metric Sizes - dimensions in millimeters (mm)												
UX6M	$14.50	6 mm	6	12.5	27.0	41.5	3.3	16.4	7.4	14.9	4.5	0.4	5
UX8M	$17.00	8 mm (5/16 in.)	8	14.5	30.0	45.6	4.2	18.7	9.1	18.2	6.0	0.4	5
UX10M	$19.50	10 mm	10	17.5	32.9	48.4	4.3	20.1	10.1	20.3	7.4	0.6	5
UX12M	$21.00	12 mm	12	20.5	37.9	55.3	4.3	22.8	11.8	23.7	9.0	0.6	5

** UX532 has blue release rings*

NITRA PNEUMATICS Pneumatic Push-to-Connect Fittings



NITRA pneumatic push-to-connect union tri-branch fitting with thermoplastic (PBT) body and stainless steel tube gripping claws. For use with polyurethane or nylon tubing. Five fittings per package.

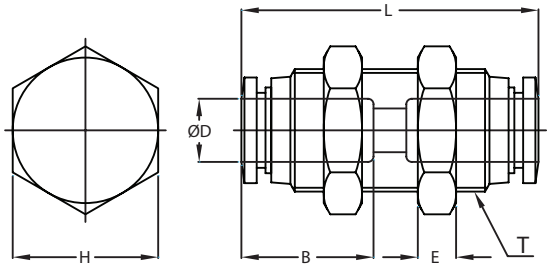


Inch Fitting



Metric Fitting

NITRA Union Tri-Branch																
Inch Sizes - dimensions in inches (in.)																
Part No.	*Price*	*Size*	*øD1*	*øD2*	*øP1*	*øP2*	*L*	*E*	*øC*	*B1*	*B2*	*M1*	*M2*	*Orifice*	*Package Weight (lbs)*	*Qty. per pack*
U3B14-532	$20.00	1/4 in. x 5/32 in. (4 mm)	1/4	5/32	0.51	0.41	2.43	1.06	0.18	0.66	0.59	0.34	1.42	0.13	0.4	5
U3B516-14	$22.50	5/16 in. (8 mm) x 1/4 in.	5/16	1/4	0.57	0.51	2.83	1.18	0.18	0.72	0.66	0.38	1.71	0.19	0.5	5
U3B38-14	$25.50	3/8 in. x 1/4 in.	3/8	1/4	0.69	0.51	2.91	1.26	0.18	0.79	0.66	0.43	1.71	0.20	0.6	5
U3B38-516	$25.50	3/8 in. x 5/16 in. (8 mm)	3/8	5/16	0.69	0.57	3.29	1.36	0.17	0.79	0.72	0.37	1.85	0.27	0.6	5
Metric Sizes - dimensions in millimeters (mm)																
U3B6M-4M	$18.50	6 mm x 4 mm (5/32 in.)	6	4	12.5	10.5	63.2	25.9	3.3	16.4	14.9	7.5	34.0	3.0	0.4	5
U3B8M-6M	$22.50	8 mm (5/16 in.) x 6 mm	8	6	14.5	12.5	72.4	29.4	4.3	18.7	16.4	9.2	41.1	4.0	0.6	5
U3B10M-8M	$27.00	10 mm x 8 mm (5/16 in.)	10	8	17.5	14.5	83.6	34.8	4.3	20.1	18.7	9.5	47.0	6.5	0.7	5



NITRA pneumatic push-to-connect bulkhead union fitting with nickel-plated brass body and stainless steel tube gripping claws. For use with polyurethane or nylon tubing. Five fittings per package.



Inch Fitting

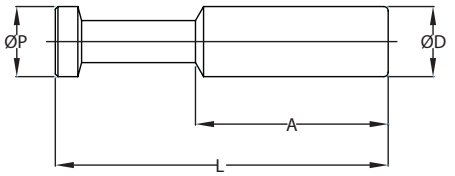


Metric Fitting

NITRA Bulkhead Union										
Inch Sizes - dimensions in inches (in.)										
Part No.	*Price*	*Size*	*øD*	*T*	*L*	*E*	*B*	*H (Hex)*	*Orifice*	*Package Weight (lbs)*	*Qty. per pack*
*UB532**	$12.00	5/32 in. (4 mm)	5/32	M12*1.0p	1.40	0.16	0.58	0.55	0.12	0.2	5
UB14	$13.00	1/4 in.	1/4	M14*1.0p	1.54	0.16	0.67	0.67	0.20	0.3	5
UB38	$19.00	3/8 in.	3/8	M20*1.0p	1.69	0.20	0.77	0.94	0.31	0.6	5
UB12	$24.00	1/2 in.	1/2	M22*1.0p	1.95	0.20	0.89	1.02	0.43	0.9	5
Metric Sizes - dimensions in millimeters (mm)										
UB6M	$13.00	6 mm	6	M14*1.0p	39.9	4	16.4	17	5.0	0.2	5
UB8M	$16.00	8 mm (5/16 in.)	8	M16*1.0p	42.2	5	18.4	19	7.0	0.4	5
UB10M	$19.50	10 mm	10	M20*1.0p	45.1	5	19.6	24	9.0	0.6	5
UB12M	$20.50	12 mm	12	M22*1.0p	50.3	5	21.9	26	11.0	0.8	5

** UB532 has blue release rings*

NITRA PNEUMATICS Pneumatic Push-to-Connect Fittings



NITRA pneumatic plug fitting. For use with push-to-connect fittings. Five fittings per package.



Inch/Metric Fitting

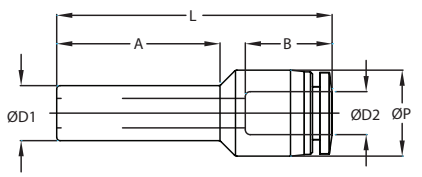
NITRA Plug								
Inch Sizes - dimensions in inches (in.)								
Part No.	*Price*	*Size*	*øD*	*øP*	*L*	*A*	*Package Weight (lbs)*	*Qty. per pack*
PLUG532	$2.75	5/32 in. (4 mm)	5/32	5/32	1.18	0.71	0.1	5
PLUG14	$3.00	1/4 in.	1/4	1/4	1.34	0.79	0.1	5
PLUG38	$3.50	3/8 in.	3/8	3/8	1.65	0.98	0.1	5
PLUG12	$4.00	1/2 in.	1/2	1/2	1.81	1.10	0.1	5
Metric Sizes - dimensions in millimeters (mm)								
PLUG6M	$2.75	6 mm	6	6	34.0	20.0	0.1	5
PLUG8M	$3.25	8 mm (5/16 in.)	8	8	38.0	22.0	0.1	5
PLUG10M	$3.75	10 mm	10	10	42.0	25.0	0.1	5
PLUG12M	$4.00	12 mm	12	12	46.0	28.0	0.1	5
PLUG16M	$7.50	16 mm	16	16	50.0	30.0	0.1	5



Inch Fitting



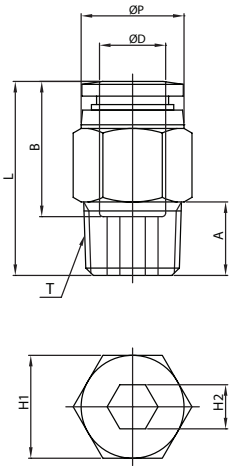
Metric Fitting



NITRA pneumatic plug-in to push-to-connect reducer fitting with thermoplastic (PBT) body and stainless steel tube gripping claws. For use with polyurethane or nylon tubing. Five fittings per package.

NITRA Plug-In Reducer											
Inch Sizes - dimensions in inches (in.)											
Part No.	*Price*	*Size*	*øD1*	*øD2*	*øP*	*L*	*A*	*B*	*Orifice*	*Package Weight (lbs)*	*Qty. per pack*
PR532-18	$14.00	5/32 in. (4 mm) x 1/8 in.	5/32	1/8	0.30	1.20	0.71	0.44	0.09	0.1	5
PR14-18	$15.50	1/4 in. x 1/8 in.	1/4	1/8	0.30	1.26	0.85	0.44	0.09	0.1	5
PR14-532	$4.75	1/4 in. x 5/32 in. (4 mm)	1/4	5/32	0.41	1.59	0.89	0.59	0.13	0.1	5
PR516-14	$5.25	5/16 in. (8 mm) x 1/4 in.	5/16	1/4	0.51	1.89	1.13	0.66	0.16	0.1	5
PR38-14	$5.25	3/8 in. x 1/4 in.	3/8	1/4	0.51	1.89	1.23	0.66	0.22	0.1	5
PR38-516	$6.00	3/8 in. x 5/16 in. (8 mm)	3/8	5/16	0.58	1.76	0.96	0.72	0.26	0.1	5
PR12-38	$5.75	1/2 in. x 3/8 in.	1/2	3/8	0.69	2.04	1.20	0.79	0.31	0.1	5
Metric Sizes - dimensions in millimeters (mm)											
PR6M-4M	$4.50	6 mm x 4 mm (5/32 in.)	6	4	10.5	37.8	21.7	14.9	3.0	0.1	5
PR8M-6M	$4.75	8 mm (5/16 in.) x 6 mm	8	6	12.5	40.0	23.7	16.4	4.8	0.1	5
PR10M-8M	$5.25	10 mm x 8 mm (5/16 in.)	10	8	14.8	46.8	27.6	18.7	6.8	0.1	5
PR12M-10M	$5.50	12 mm x 10 mm	12	10	17.5	50.8	31.2	20.1	8.0	0.1	5
PR16M-12M	$10.00	16 mm x 12 mm	16	12	20.5	63.0	38.0	23.6	9.9	0.1	5

NITRA PNEUMATICS Pneumatic Push-to-Connect Fittings



NITRA pneumatic push-to-connect male straight fitting with nickel-plated brass body, stainless steel tube gripping claws and pre-applied Teflon thread sealant (#10-32, M5 and G threads have O-ring instead of thread sealant). For use with polyurethane or nylon tubing. Five fittings per package.



Inch Fitting



R-Thread (BSPT) Metric Fitting



G-Thread (BSPP) Metric Fitting

NITRA Male Straight													
Inch Sizes - dimensions in inches (in.)													
Part No.	*Price*	*Size*	*øD*	*øP*	*T*	*L*	*A*	*B*	*H1 (Hex)*	*H2 (Hex)*	*Orifice*	*Package Weight (lbs)*	*Qty. per pack*
MS18-10N	$7.50	1/8 in. x #10-32	1/8	0.28	UNF 10-32	0.65	0.14	0.44	5/16	N/A	0.08	0.1	5
MS18-18N	$8.25	1/8 in. x 1/8 NPT	1/8	0.28	NPT 1/8	0.67	0.33	0.44	7/16	N/A	0.10	0.1	5
MS18-14N	$9.75	1/8 in. x 1/4 NPT	1/8	0.28	NPT 1/4	0.85	0.41	0.44	9/16	N/A	0.10	0.1	5
MS532-10N	$4.75	5/32 in. (4 mm) x #10-32	5/32	0.41	UNF 10-32	0.88	0.16	0.58	7/16	3/32	0.10	0.1	5
MS532-18N	$4.25	5/32 in. (4 mm) x 1/8 NPT	5/32	0.41	NPT 1/8	0.76	0.33	0.58	7/16	1/8	0.13	0.1	5
MS532-14N	$4.50	5/32 in. (4 mm) x 1/4 NPT	5/32	0.41	NPT 1/4	0.86	0.41	0.58	9/16	1/8	0.13	0.2	5
MS14-10N	$5.00	1/4 in. x #10-32	1/4	0.50	UNF 10-32	0.95	0.16	0.67	1/2	3/32	0.10	0.1	5
MS14-18N	$4.50	1/4 in. x 1/8 NPT	1/4	0.50	NPT 1/8	0.94	0.33	0.67	1/2	3/16	0.19	0.2	5
MS14-14N	$4.75	1/4 in. x 1/4 NPT	1/4	0.50	NPT 1/4	0.92	0.41	0.67	9/16	3/16	0.19	0.2	5
MS14-38N	$6.00	1/4 in. x 3/8 NPT	1/4	0.50	NPT 3/8	0.96	0.45	0.67	11/16	3/16	0.19	0.2	5
MS516-18N	$5.50	5/16 in. (8 mm) x 1/8 NPT	5/16	0.55	NPT 1/8	1.13	0.33	0.73	9/16	3/16	0.19	0.2	5
MS516-14N	$5.50	5/16 in. (8 mm) x 1/4 NPT	5/16	0.55	NPT 1/4	1.04	0.41	0.73	9/16	1/4	0.25	0.2	5
MS516-38N	$6.25	5/16 in. (8 mm) x 3/8 NPT	5/16	0.55	NPT 3/8	0.96	0.45	0.73	11/16	1/4	0.25	0.2	5
MS38-18N	$6.50	3/8 in. x 1/8 NPT	3/8	0.66	NPT 1/8	1.18	0.33	0.77	11/16	3/16	0.19	0.2	5
MS38-14N	$6.75	3/8 in. x 1/4 NPT	3/8	0.66	NPT 1/4	1.22	0.41	0.77	11/16	1/4	0.25	0.2	5
MS38-38N	$7.00	3/8 in. x 3/8 NPT	3/8	0.66	NPT 3/8	1.09	0.45	0.77	11/16	5/16	0.31	0.2	5
MS38-12N	$9.25	3/8 in. x 1/2 NPT	3/8	0.66	NPT 1/2	1.11	0.57	0.77	7/8	5/16	0.31	0.4	5
MS12-14N	$8.50	1/2 in. x 1/4 NPT	1/2	0.82	NPT 1/4	1.39	0.41	0.89	7/8	1/4	0.25	0.4	5
MS12-38N	$8.75	1/2 in. x 3/8 NPT	1/2	0.82	NPT 3/8	1.25	0.45	0.89	7/8	3/8	0.37	0.5	5
MS12-12N	$9.75	1/2 in. x 1/2 NPT	1/2	0.82	NPT 1/2	1.23	0.57	0.89	7/8	3/8	0.37	0.5	5

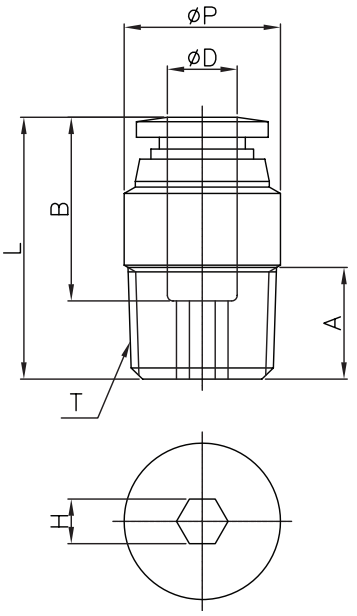
BSPT = British Standard Pipe Taper
BSPP = British Standard Pipe Parallel

NITRA PNEUMATICS Pneumatic Push-to-Connect Fittings

NITRA Male Straight Continued													
R-Thread (BSPT) Metric Sizes - dimensions in millimeters (mm)													
Part No.	*Price*	*Size*	*øD*	*øP*	*T*	*L*	*A*	*B*	*H1 (Hex)*	*H2 (Hex)*	*Orifice*	*Package Weight (lbs)*	*Qty. per pack*
MS4M-M5	$5.25	4 mm (5/32 in.) x M5	4	10.0	M5*0.8p	20.8	4.0	14.7	10	-	2.5	0.1	5
MS4M-18R	$4.25	4 mm (5/32 in.) x R1/8	4	10.0	R 1/8	21.9	8.0	14.7	10	3	3.5	0.2	5
MS4M-14R	$4.50	4 mm (5/32 in.) x R1/4	4	10.0	R 1/4	20.9	10.0	14.7	14	3	3.5	0.2	5
MS6M-M5	$5.25	6 mm x M5	6	12.0	M5*0.8p	23.1	4.0	16.4	12	-	2.5	0.3	5
MS6M-18R	$4.25	6 mm x R1/8	6	12.0	R 1/8	22.4	8.0	16.4	12	4	5.0	0.4	5
MS6M-14R	$4.75	6 mm x R1/4	6	12.0	R 1/4	21.9	10.0	16.4	14	5	5.0	0.4	5
MS6M-38R	$5.75	6 mm x R3/8	6	12.0	R 3/8	22.9	11.0	16.4	17	5	5.0	0.5	5
MS8M-18R	$5.50	8 mm (5/16 in.) x R1/8	8	14.0	R 1/8	28.4	8.0	18.4	14	5	6.0	0.5	5
MS8M-14R	$5.75	8 mm (5/16 in.) x R1/4	8	14.0	R1/4	26.4	10.0	18.4	14	6	7.0	0.6	5
MS8M-38R	$6.50	8 mm (5/16 in.) x R3/8	8	14.0	R 3/8	23.9	11.0	18.4	17	6	7.0	0.4	5
MS8M-12R	$7.25	8 mm (5/16 in.) x R1/2	8	14.0	R 1/2	29.4	14.0	18.4	19	6	7.0	0.5	5
MS10M-18R	$6.75	10 mm x R1/8	10	16.1	R 1/8	29.8	8.0	19.6	17	5	6.0	0.6	5
MS10M-14R	$7.00	10 mm x R1/4	10	16.1	R 1/4	31.3	10.0	19.6	17	6	7.0	0.6	5
MS10M-38R	$7.25	10 mm x R3/8	10	16.1	R 3/8	27.4	11.0	19.6	17	8	8.0	0.7	5
MS10M-12R	$9.50	10 mm x R1/2	10	16.1	R 1/2	29.8	14.0	19.6	19	8	8.0	0.8	5
MS12M-14R	$8.25	12mm x R1/4	12	19.0	R 1/4	33.7	10.0	21.9	19	6	8.0	0.8	5
MS12M-38R	$8.50	12 mm x R3/8	12	19.0	R 3/8	30.7	11.0	21.9	19	8	10.0	0.8	5
MS12M-12R	$9.50	12 mm x R1/2	12	19.0	R 1/2	30.2	14.0	21.9	19	8	10.0	1.0	5
MS16M-38R	$27.00	16 mm x R3/8	16	24.0	R 3/8	37.5	11.0	24.0	24	10	10.0	1.0	5
MS16M-12R	$28.25	16 mm x R1/2	16	24.0	R 1/2	40.5	14.0	24.0	24	10	10.0	1.0	5
G-Thread (BSPP) Metric Sizes - dimensions in millimeters (mm)													
MS4M-18G	$4.25	4 mm (5/32 in.) x G1/8	4	10.3	G 1/8	20.0	5.0	14.8	13	3	3.0	0.2	5
MS4M-14G	$4.50	4 mm (5/32 in.) x G1/4	4	10.3	G 1/4	21.5	6.5	14.8	15	3	3.0	0.3	5
MS6M-18G	$4.25	6 mm x G1/8	6	12.3	G 1/8	21.2	5.0	16.4	13	4	4.0	0.2	5
MS6M-14G	$4.75	6 mm x G1/4	6	12.3	G 1/4	23.2	6.5	16.4	15	5	5.0	0.3	5
MS6M-38G	$5.75	6 mm x G3/8	6	12.3	G 3/8	22.2	6.5	16.4	17	5	5.0	0.3	5
MS8M-14G	$5.75	8 mm (5/16 in.) x G1/4	8	14.3	G 1/4	24.4	6.5	18.4	15	6	6.0	0.2	5
MS8M-38G	$6.50	8 mm (5/16 in.) x G3/8	8	14.3	G 3/8	23.4	6.5	18.4	17	6	6.0	0.3	5
MS8M-12G	$7.25	8 mm (5/16 in.) x G1/2	8	14.3	G 1/2	23.9	8.0	18.4	21	6	6.0	0.4	5
MS10M-38G	$7.25	10 mm x G3/8	10	16.5	G 3/8	25.4	6.5	19.7	17	8	8.0	0.3	5
MS10M-12G	$9.50	10 mm x G1/2	10	16.5	G 1/2	25.9	8.0	19.7	21	8	8.0	0.4	5

BSPT = British Standard Pipe Taper
BSPP = British Standard Pipe Parallel

NITRA PNEUMATICS Pneumatic Push-to-Connect Fittings



NITRA pneumatic push-to-connect round male straight fitting with nickel-plated brass body, internal hex, stainless steel tube gripping claws and pre-applied Teflon thread sealant (O-ring on #10-32 and M5 threads). For use with polyurethane or nylon tubing. Five fittings per package.



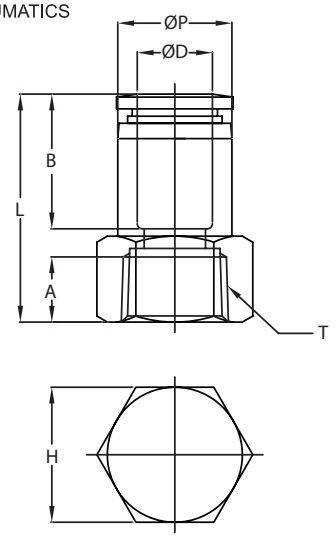
Inch Fitting



Metric Fitting

NITRA Round Male Straight												
Inch Sizes - dimensions in inches (in.)												
Part No.	***Price***	***Size***	***øD***	***øP***	***T***	***L***	***A***	***B***	***H (Hex)***	***Orifice***	***Package Weight (lbs)***	***Qty. per pack***
MSR18-10N	$10.00	1/8 in. x #10-32	1/8	0.28	UNF 10-32	0.65	0.14	0.44	3/32	0.09	0.1	5
MSR18-18N	$7.25	1/8 in. x 1/8 NPT	1/8	0.43	NPT 1/8	0.64	0.33	0.44	3/32	0.09	0.1	5
MSR532-10N	$5.50	5/32 in. (4 mm) x #10-32	5/32	0.43	UNF 10-32	0.84	0.16	0.58	3/32	0.09	0.1	5
MSR532-18N	$4.75	5/32 in. (4 mm) x 1/8 NPT	5/32	0.43	NPT 1/8	0.82	0.33	0.58	1/8	0.13	0.1	5
MSR14-10N	$6.00	1/4 in. x #10-32	1/4	0.51	UNF 10-32	0.95	0.16	0.67	3/32	0.09	0.1	5
MSR14-18N	$5.00	1/4 in. x 1/8 NPT	1/4	0.51	NPT 1/8	0.93	0.33	0.67	3/16	0.19	0.1	5
MSR14-14N	$5.25	1/4 in. x 1/4 NPT	1/4	0.55	NPT 1/4	0.94	0.41	0.67	3/16	0.19	0.1	5
MSR516-18N	$6.50	5/16 in. (8 mm) x 1/8 NPT	5/16	0.55	NPT 1/8	1.13	0.33	0.73	3/16	0.19	0.1	5
MSR516-14N	$6.50	5/16 in. (8 mm) x 1/4 NPT	5/16	0.55	NPT 1/4	1.04	0.41	0.73	1/4	0.25	0.1	5
Metric Sizes - dimensions in millimeters (mm)												
MSR4M-M5	$5.25	4 mm (5/32 in.) x M5	4	10.0	M5*0.8p	20.8	4.6	14.7	2	2.0	0.1	5
MSR4M-18R	$4.25	4 mm (5/32 in.) x R1/8	4	10.0	R 1/8	20.7	8.0	14.7	3	3.0	0.1	5
MSR6M-M5	$5.50	6 mm x M5	6	12.0	M5*0.8p	23.1	4.6	16.4	2	2.0	0.1	5
MSR6M-18R	$4.25	6 mm x R1/8	6	12.0	R 1/8	22.7	8.0	16.4	4	4.0	0.1	5
MSR6M-14R	$4.75	6 mm x R1/4	6	14.0	R 1/4	23.4	10.0	16.4	4	4.0	0.2	5

Pneumatic Push-to-Connect Fittings



NITRA pneumatic push-to-connect female straight fitting with nickel-plated brass body and stainless steel tube gripping claws. For use with polyurethane or nylon tubing. Five fittings per package.



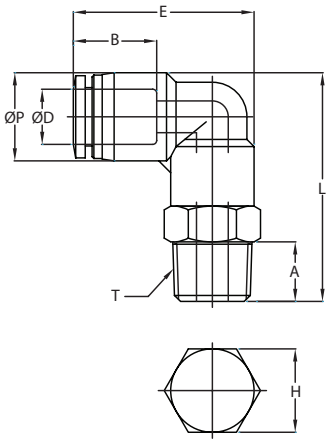
Inch Fitting



Metric Fitting

NITRA Female Straight												
Inch Sizes - dimensions in inches (in.)												
Part No.	*Price*	*Size*	*øD*	*øP*	*T*	*L*	*A*	*B*	*H (Hex)*	*Orifice*	*Package Weight (lbs)*	*Qty. per pack*
FS18-10N	$11.00	1/8 in. x #10-32	1/8	0.30	UNF 10-32	0.74	0.24	0.44	5/16	0.10	0.1	5
FS18-18N	$11.00	1/8 in. x 1/8 NPT	1/8	0.30	NPT 1/8	0.89	0.33	0.44	7/16	0.10	0.1	5
FS18-14N	$11.00	1/8 in. x 1/4 NPT	1/8	0.30	NPT 1/4	1.00	0.45	0.44	11/16	0.10	0.2	5
FS532-18N	$8.00	5/32 in. (4 mm) x 1/8 NPT	5/32	0.39	NPT 1/8	1.06	0.37	0.58	9/16	0.14	0.1	5
FS532-14N	$9.00	5/32 in. (4 mm) x 1/4 NPT	5/32	0.39	NPT 1/4	1.16	0.45	0.58	11/16	0.14	0.2	5
FS14-18N	$9.00	1/4 in. x 1/8 NPT	1/4	0.51	NPT 1/8	1.13	0.37	0.67	9/16	0.20	0.2	5
FS14-14N	$9.50	1/4 in. x 1/4 NPT	1/4	0.51	NPT 1/4	1.21	0.45	0.67	11/16	0.20	0.2	5
FS14-38N	$11.50	1/4 in. x 3/8 NPT	1/4	0.51	NPT 3/8	1.29	0.49	0.67	7/8	0.20	0.4	5
FS516-18N	$12.00	5/16 in. (8 mm) x 1/8 NPT	5/16	0.55	NPT 1/8	1.16	0.37	0.77	9/16	0.24	0.2	5
FS516-14N	$15.50	5/16 in. (8 mm) x 1/4 NPT	5/16	0.55	NPT 1/4	1.26	0.45	0.77	11/16	0.24	0.3	5
FS516-38N	$15.50	5/16 in. (8 mm) x 3/8 NPT	5/16	0.55	NPT 3/8	1.28	0.49	0.77	7/8	0.24	0.4	5
FS38-18N	$13.00	3/8 in. x 1/8 NPT	3/8	0.66	NPT 1/8	1.30	0.37	0.77	11/16	0.31	0.3	5
FS38-14N	$13.00	3/8 in. x 1/4 NPT	3/8	0.66	NPT 1/4	1.30	0.45	0.77	11/16	0.31	0.3	5
FS38-38N	$13.50	3/8 in. x 3/8 NPT	3/8	0.66	NPT 3/8	1.34	0.49	0.77	7/8	0.31	0.5	5
FS38-12N	$17.00	3/8 in. x 1/2 NPT	3/8	0.66	NPT 1/2	1.44	0.57	0.77	15/16	0.31	0.6	5
FS12-14N	$17.50	1/2 in. x 1/4 NPT	1/2	0.82	NPT 1/4	1.47	0.45	0.89	7/8	0.39	0.5	5
FS12-38N	$17.50	1/2 in. x 3/8 NPT	1/2	0.82	NPT 3/8	1.47	0.49	0.89	7/8	0.39	0.6	5
FS12-12N	$21.50	1/2 in. x 1/2 NPT	1/2	0.82	NPT 1/2	1.55	0.57	0.89	15/16	0.39	0.7	5
Metric Sizes - dimensions in millimeters (mm)												
FS4M-M5	$8.75	4 mm (5/32 in.) x M5	4	10.0	M5*0.8p	25.9	7.0	14.7	12	3.5	0.2	5
FS4M-18R	$8.00	4 mm (5/32 in.) x R1/8	4	10.0	R 1/8	27.0	9.0	14.7	14	3.5	0.2	5
FS4M-14R	$9.00	4 mm (5/32 in.) x R1/4	4	10.0	R 1/4	29.0	11.0	14.7	17	3.5	0.2	5
FS6M-M5	$10.00	6 mm x M5	6	12.0	M5*0.8p	26.7	7.0	16.4	12	4.2	0.2	5
FS6M-18R	$9.25	6 mm x R1/8	6	12.0	R 1/8	28.2	9.0	16.4	14	5.0	0.2	5
FS6M-14R	$9.75	6 mm x R1/4	6	12.0	R 1/4	30.2	11.0	16.4	17	5.0	0.2	5
FS6M-38R	$11.50	6 mm x R3/8	6	12.0	R 3/8	31.2	12.0	16.4	22	5.0	0.4	5
FS8M-18R	$11.50	8 mm (5/16 in.) x R1/8	8	14.0	R 1/8	29.4	9.0	18.4	14	6.0	0.2	5
FS8M-14R	$11.50	8 mm (5/16 in.) x R1/4	8	14.0	R 1/4	31.4	11.0	18.4	17	6.0	0.2	5
FS8M-38R	$12.50	8 mm (5/16 in.) x R3/8	8	14.0	R 3/8	32.4	12.0	18.4	22	6.0	0.5	5
FS8M-12R	$13.00	8 mm (5/16 in.) x R1/2	8	14.0	R 1/2	34.4	14.0	18.4	24	6.0	0.5	5
FS10M-18R	$13.50	10 mm x R1/8	10	16.4	R 1/8	32.5	9.0	19.6	17	8.5	0.3	5
FS10M-14R	$13.50	10 mm x R1/4	10	16.4	R 1/4	32.5	11.0	19.6	17	8.5	0.3	5
FS10M-38R	$14.00	10 mm x R3/8	10	16.4	R 3/8	33.5	12.0	19.6	22	8.5	0.5	5
FS10M-12R	$17.50	10 mm x R1/2	10	16.4	R 1/2	33.5	14.0	19.6	24	8.5	0.5	5
FS12M-14R	$17.00	12 mm x R1/4	12	19.0	R 1/4	37.1	11.0	21.9	22	10.0	0.5	5
FS12M-38R	$17.00	12 mm x R3/8	12	19.0	R 3/8	37.1	12.0	21.9	22	10.0	0.5	5
FS12M-12R	$21.50	12 mm x R1/2	12	19.0	R 1/2	39.1	14.0	21.9	24	10.0	1.0	5

NITRA PNEUMATICS Pneumatic Push-to-Connect Fittings



NITRA pneumatic push-to-connect male elbow fitting with rotating thermoplastic (PBT) body, nickel-plated brass threads, stainless steel tube gripping claws and pre-applied Teflon thread sealant (#10-32, M5 and G threads have O-ring instead of thread sealant). For use with polyurethane or nylon tubing. Five fittings per package.



Inch Fitting



R-Thread (BSPT) Metric Fitting



G-Thread (BSPP) Metric Fitting

NITRA Male Elbow													
Inch Sizes - dimensions in inches (in.)													
Part No.	*Price*	*Size*	*øD*	*øP*	*T*	*L*	*E*	*A*	*B*	*H (Hex)*	*Orifice*	*Package Weight (lbs)*	*Qty. per pack*
ME18-10N	$11.00	1/8 in. x #10-32	1/8	0.31	UNF 10-32	0.75	0.68	0.14	0.44	5/16	0.09	0.1	5
ME18-18N	$8.25	1/8 in. x 1/8 NPT	1/8	0.31	NPT 1/8	0.77	0.68	0.33	0.44	7/16	0.09	0.1	5
ME18-14N	$9.25	1/8 in. x 1/4 NPT	1/8	0.31	NPT 1/4	0.87	0.68	0.41	0.44	9/16	0.09	0.1	5
ME532-10N	$6.00	5/32 in. (4 mm) x #10-32	5/32	0.41	UNF 10-32	1.05	0.93	0.14	0.59	7/16	0.10	0.1	5
ME532-18N	$6.00	5/32 in. (4 mm) x 1/8 NPT	5/32	0.41	NPT 1/8	1.19	0.93	0.33	0.59	7/16	0.12	0.1	5
ME532-14N	$6.75	5/32 in. (4 mm) x 1/4 NPT	5/32	0.41	NPT 1/4	1.31	0.93	0.41	0.59	9/16	0.12	0.1	5
ME14-10N	$6.50	1/4 in. x #10-32	1/4	0.51	UNF 10-32	1.28	1.04	0.14	0.66	1/2	0.10	0.1	5
ME14-18N	$6.50	1/4 in. x 1/8 NPT	1/4	0.51	NPT 1/8	1.35	1.04	0.33	0.66	1/2	0.18	0.2	5
ME14-14N	$6.75	1/4 in. x 1/4 NPT	1/4	0.51	NPT 1/4	1.46	1.04	0.41	0.66	9/16	0.18	0.2	5
ME14-38N	$7.75	1/4 in. x 3/8 NPT	1/4	0.51	NPT 3/8	1.50	1.04	0.45	0.66	11/16	0.18	0.3	5
ME516-18N	$7.50	5/16 in. (8 mm) x 1/8 NPT	5/16	0.58	NPT 1/8	1.45	1.20	0.33	0.72	9/16	0.24	0.2	5
ME516-14N	$8.00	5/16 in. (8 mm) x 1/4 NPT	5/16	0.58	NPT 1/4	1.53	1.20	0.41	0.72	9/16	0.24	0.3	5
ME516-38N	$9.00	5/16 in. (8 mm) x 3/8 NPT	5/16	0.58	NPT 3/8	1.57	1.20	0.45	0.72	11/16	0.24	0.4	5
ME38-18N	$11.00	3/8 in. x 1/8 NPT	3/8	0.69	NPT 1/8	1.52	1.27	0.33	0.79	11/16	0.20	0.3	5
ME38-14N	$11.00	3/8 in. x 1/4 NPT	3/8	0.69	NPT 1/4	1.60	1.27	0.41	0.79	11/16	0.28	0.3	5
ME38-38N	$11.00	3/8 in. x 3/8 NPT	3/8	0.69	NPT 3/8	1.64	1.27	0.45	0.79	11/16	0.28	0.4	5
ME38-12N	$13.50	3/8 in. x 1/2 NPT	3/8	0.69	NPT 1/2	1.76	1.27	0.57	0.79	7/8	0.28	0.4	5
ME12-14N	$13.00	1/2 in. x 1/4 NPT	1/2	0.83	NPT 1/4	1.81	1.49	0.41	0.90	3/4	0.31	0.4	5
ME12-38N	$13.50	1/2 in. x 3/8 NPT	1/2	0.83	NPT 3/8	1.85	1.49	0.45	0.90	3/4	0.35	0.4	5
ME12-12N	$14.50	1/2 in. x 1/2 NPT	1/2	0.83	NPT 1/2	1.97	1.49	0.57	0.90	7/8	0.35	0.5	5

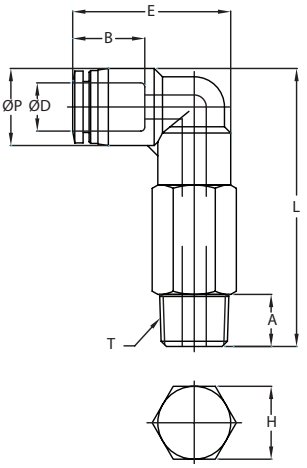
BSPT = British Standard Pipe Taper
BSPP = British Standard Pipe Parallel

NITRA PNEUMATICS Pneumatic Push-to-Connect Fittings

NITRA Male Elbow													
R-Thread (BSPT) Metric Sizes - dimensions in millimeters (mm)													
Part No.	*Price*	*Size*	*øD*	*øP*	*T*	*L*	*E*	*A*	*B*	*H (Hex)*	*Orifice*	*Package Weight (lbs)*	*Qty. per pack*
ME4M-M5	$7.00	4 mm (5/32 in.) x M5	4	10.5	M5*0.8p	25.7	23.6	4.0	14.9	10	2.5	0.1	5
ME4M-18R	$6.00	4 mm (5/32 in.) x R1/8	4	10.5	R 1/8	29.7	23.6	8.0	14.9	10	3.0	0.1	5
ME4M-14R	$6.75	4 mm (5/32 in.) x R1/4	4	10.5	R 1/4	31.7	23.6	10.0	14.9	14	3.0	0.2	5
ME6M-M5	$7.25	6 mm x M5	6	12.5	M5*0.8p	28.7	26.3	4.0	16.4	12	2.5	0.2	5
ME6M-18R	$6.25	6 mm x R1/8	6	12.5	R 1/8	32.7	26.3	8.0	16.4	12	4.5	0.3	5
ME6M-14R	$6.50	6 mm x R1/4	6	12.5	R 1/4	35.7	26.3	10.0	16.4	14	4.5	0.3	5
ME6M-38R	$7.75	6 mm x R3/8	6	12.5	R 3/8	36.7	26.3	11.0	16.4	17	4.5	0.3	5
ME8M-18R	$8.50	8 mm (5/16 in.) x R1/8	8	14.8	R 1/8	35.4	30.3	8.0	18.7	14	6.0	0.4	5
ME8M-14R	$8.50	8 mm (5/16 in.) x R1/4	8	14.8	R 1/4	38.4	30.3	10.0	18.7	14	6.0	0.4	5
ME8M-38R	$9.25	8 mm (5/16 in.) x R3/8	8	14.8	R 3/8	39.4	30.3	11.0	18.7	17	6.0	0.4	5
ME8M-12R	$10.50	8 mm (5/16 in.) x R1/2	8	14.8	R 1/2	42.4	30.3	14.0	18.7	21	6.5	0.4	5
ME10M-18R	$11.00	10 mm x R1/8	10	17.5	R 1/8	37.2	33.0	8.0	20.1	17	6.0	0.5	5
ME10M-14R	$11.50	10 mm x R1/4	10	17.5	R 1/4	40.2	33.0	10.0	20.1	17	7.0	0.5	5
ME10M-38R	$12.00	10 mm x R3/8	10	17.5	R 3/8	41.2	33.0	11.0	20.1	17	7.0	0.6	5
ME10M-12R	$13.50	10 mm x R1/2	10	17.5	R 1/2	44.2	33.0	14.0	20.1	21	7.0	0.7	5
ME12M-14R	$12.50	12 mm x R1/4	12	20.5	R 1/4	44.6	38.1	10.0	22.8	19	7.0	0.7	5
ME12M-38R	$12.50	12 mm x R3/8	12	20.5	R 3/8	45.6	38.1	11.0	22.8	19	10.0	0.7	5
ME12M-12R	$14.50	12 mm x R1/2	12	20.5	R 1/2	48.6	38.1	14.0	22.8	21	10.0	0.8	5
ME16M-38R	$29.25	16 mm x R3/8	16	25.5	R 3/8	55.5	44.8	11.0	24.1	24	10.0	0.8	5
ME16M-12R	$30.75	16 mm x R1/2	16	25.5	R 1/2	58.5	44.8	14.0	24.1	24	13.0	0.8	5
G-Thread (BSPP) Metric Sizes - dimensions in millimeters (mm)													
ME4M-18G	$6.00	4 mm (5/32 in.) x G1/8	4	10.5	G 1/8	26.7	18.5	5.0	14.8	14	3.0	0.2	5
ME4M-14G	$6.75	4 mm (5/32 in.) x G1/4	4	10.5	G 1/4	28.7	18.5	6.5	14.8	17	3.0	0.3	5
ME6M-18G	$6.25	6 mm x G1/8	6	12.5	G 1/8	29.7	20.3	5.0	16.4	14	4.0	0.3	5
ME6M-14G	$6.50	6 mm x G1/4	6	12.5	G 1/4	31.7	20.3	6.5	16.4	17	4.0	0.3	5
ME6M-38G	$7.75	6 mm x G3/8	6	12.5	G 3/8	31.2	20.3	6.5	16.4	20	4.0	0.4	5
ME8M-14G	$8.50	8 mm (5/16 in.) x G1/4	8	14.8	G 1/4	34.4	22.9	6.5	18.3	17	6.0	0.4	5
ME8M-38G	$9.25	8 mm (5/16 in.) x G3/8	8	14.8	G 3/8	33.9	22.9	6.5	18.3	20	6.0	0.4	5
ME8M-12G	$10.50	8 mm (5/16 in.) x G1/2	8	14.8	G 1/2	35.4	22.9	8.0	18.3	24	6.0	0.5	5
ME10M-38G	$12.00	10 mm x G3/8	10	17.5	G 3/8	35.7	24.6	6.5	20.2	20	6.0	0.4	5
ME10M-12G	$13.50	10 mm x G1/2	10	17.5	G 1/2	37.2	24.6	8.0	20.2	24	6.0	0.5	5

BSPT = British Standard Pipe Taper
BSPP = British Standard Pipe Parallel

Pneumatic Push-to-Connect Fittings



NITRA pneumatic push-to-connect long male elbow fitting with rotating thermoplastic (PBT) body, nickel-plated brass threads, stainless steel tube gripping claws and pre-applied Teflon thread sealant (O-ring on #10-32 and M5 threads). For use with polyurethane or nylon tubing. Five fittings per package.



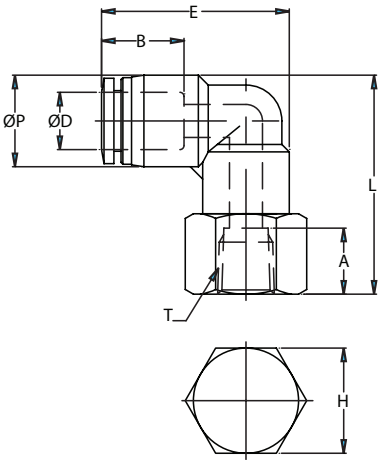
Inch Fitting



Metric Fitting

NITRA Long Male Elbow													
Inch Sizes - dimensions in inches (in.)													
Part No.	*Price*	*Size*	*øD*	*øP*	*T*	*L*	*E*	*A*	*B*	*H (Hex)*	*Orifice*	*Package Weight (lbs)*	*Qty. per pack*
MEL18-10N	$17.00	1/8 in. x #10-32	1/8	0.30	UNF 10-32	1.09	0.68	0.14	0.44	5/16	0.09	0.1	5
MEL18-18N	$12.50	1/8 in. x 1/8 NPT	1/8	0.30	NPT 1/8	1.11	0.68	0.33	0.44	7/16	0.09	0.1	5
MEL532-10N	$11.00	5/32 in. (4 mm) x #10-32	5/32	0.41	UNF 10-32	1.48	0.93	0.14	0.59	7/16	0.08	0.2	5
MEL532-18N	$11.00	5/32 in. (4 mm) x 1/8 NPT	5/32	0.41	NPT 1/8	1.62	0.93	0.33	0.59	7/16	0.12	0.2	5
MEL532-14N	$12.00	5/32 in.(4 mm) x 1/4 NPT	5/32	0.41	NPT 1/4	1.68	0.93	0.41	0.59	9/16	0.12	0.2	5
MEL14-10N	$10.50	1/4 in. x #10-32	1/4	0.51	UNF 10-32	1.73	1.04	0.14	0.66	1/2	0.08	0.3	5
MEL14-18N	$10.50	1/4 in. x 1/8 NPT	1/4	0.51	NPT 1/8	1.87	1.04	0.33	0.66	1/2	0.18	0.2	5
MEL14-14N	$11.50	1/4 in. x 1/4 NPT	1/4	0.51	NPT 1/4	1.99	1.04	0.41	0.66	9/16	0.18	0.3	5
MEL14-38N	$14.00	1/4 in. x 3/8 NPT	1/4	0.51	NPT 3/8	2.03	1.04	0.45	0.66	11/16	0.18	0.3	5
MEL516-18N	$12.00	5/16 in. (8 mm) x 1/8 NPT	5/16	0.58	NPT 1/8	1.75	1.20	0.33	0.72	9/16	0.24	0.4	5
MEL516-14N	$12.50	5/16 in. (8 mm) x 1/4 NPT	5/16	0.58	NPT 1/4	1.83	1.20	0.41	0.72	9/16	0.24	0.4	5
MEL516-38N	$15.00	5/16 in. (8 mm) x 3/8 NPT	5/16	0.58	NPT 3/8	1.99	1.20	0.45	0.72	11/16	0.24	0.7	5
MEL38-18N	$16.00	3/8 in. x 1/8 NPT	3/8	0.68	NPT 1/8	2.24	1.27	0.33	0.79	11/16	0.24	0.3	5
MEL38-14N	$16.00	3/8 in. x 1/4 NPT	3/8	0.69	NPT 1/4	2.31	1.27	0.41	0.79	11/16	0.28	0.4	5
MEL38-38N	$16.50	3/8 in. x 3/8 NPT	3/8	0.69	NPT 3/8	2.35	1.27	0.45	0.79	11/16	0.28	0.5	5
MEL38-12N	$23.50	3/8 in. x 1/2 NPT	3/8	0.69	NPT 1/2	2.47	1.27	0.57	0.79	7/8	0.28	0.7	5
MEL12-14N	$23.50	1/2 in. x 1/4 NPT	1/2	0.83	NPT 1/4	2.68	1.49	0.41	0.90	3/4	0.31	0.6	5
MEL12-38N	$24.00	1/2 in. x 3/8 NPT	1/2	0.83	NPT 3/8	2.72	1.49	0.45	0.90	3/4	0.35	0.7	5
MEL12-12N	$24.50	1/2 in. x 1/2 NPT	1/2	0.83	NPT 1/2	2.83	1.49	0.57	0.90	7/8	0.35	0.8	5
Metric Sizes - dimensions in millimeters (mm)													
MEL4M-M5	$12.00	4 mm (5/32 in.) x M5	4	10.5	M5*0.8p	38.2	23.6	4.1	14.9	10	2.0	0.2	5
MEL4M-18R	$11.00	4 mm (5/32 in.) x R1/8	4	10.5	R 1/8	40.7	23.6	8.0	14.9	10	3.0	0.2	5
MEL4M-14R	$12.00	4 mm (5/32 in.) x R1/4	4	10.5	R 1/4	42.7	23.6	10.0	14.9	14	3.0	0.2	5
MEL6M-M5	$11.50	6 mm x M5	6	12.5	M5*0.8p	43.7	26.3	4.1	16.4	12	2.0	0.3	5
MEL6M-18R	$10.00	6 mm x R1/8	6	12.5	R 1/8	46.2	26.3	8.0	16.4	12	4.0	0.3	5
MEL6M-14R	$11.50	6 mm x R1/4	6	12.5	R 1/4	48.2	26.3	10.0	16.4	14	4.0	0.3	5
MEL6M-38R	$14.00	6 mm x R3/8	6	12.5	R 3/8	49.2	26.3	11.0	16.4	17	4.5	0.4	5
MEL8M-18R	$13.00	8 mm (5/16 in.) x R1/8	8	14.8	R 1/8	51.4	30.3	8.0	18.7	14	6.0	0.5	5
MEL8M-14R	$14.00	8 mm (5/16 in.) x R1/4	8	14.8	R 1/4	53.4	30.3	10.0	18.7	14	6.0	0.7	5
MEL8M-38R	$15.50	8 mm (5/16 in.) x R3/8	8	14.8	R 3/8	54.4	30.3	11.0	18.7	17	6.0	0.6	5
MEL8M-12R	$17.00	8 mm (5/16 in.) x R1/2	8	14.8	R 1/2	57.4	30.3	14.0	18.7	22	6.0	0.7	5
MEL10M-18R	$16.00	10 mm x R1/8	10	17.5	R 1/8	56.4	33.0	8.0	20.1	17	6.0	0.8	5
MEL10M-14R	$16.50	10 mm x R1/4	10	17.5	R 1/4	58.4	33.0	10.0	20.1	17	7.0	0.8	5
MEL10M-38R	$17.00	10 mm x R3/8	10	17.5	R 3/8	59.4	33.0	11.0	20.1	17	7.0	0.9	5
MEL10M-12R	$23.50	10 mm x R1/2	10	17.5	R 1/2	62.4	33.0	14.0	20.1	22	7.0	1.0	5
MEL12M-14R	$23.00	12 mm x R1/4	12	20.5	R 1/4	66.1	38.1	10.0	22.8	19	8.0	1.0	5
MEL12M-38R	$23.50	12 mm x R3/8	12	20.5	R 3/8	67.1	38.1	11.0	22.8	19	10.0	1.0	5
MEL12M-12R	$24.00	12 mm x R1/2	12	20.5	R 1/2	70.1	38.1	14.0	22.8	22	10.0	1.1	5

Pneumatic Push-to-Connect Fittings



NITRA pneumatic push-to-connect female elbow fitting with rotating thermoplastic (PBT) body, nickel-plated brass threads, stainless steel tube gripping claws. For use with polyurethane or nylon tubing. Five fittings per package.



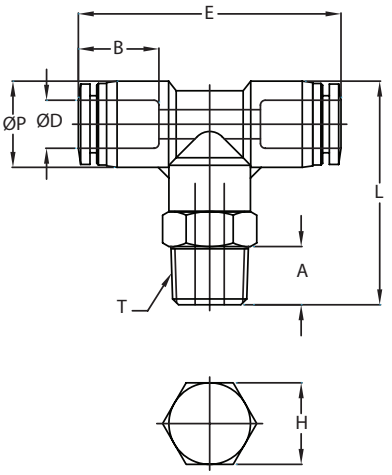
Inch Fitting



Metric Fitting

NITRA Female Elbow													
Inch Sizes - dimensions in inches (in.)													
Part No.	*Price*	*Size*	*øD*	*øP*	*T*	*L*	*E*	*A*	*B*	*H (Hex)*	*Orifice*	*Package Weight (lbs)*	*Qty. per pack*
FE532-18N	$12.00	5/32 in. (4 mm) x 1/8 NPT	5/32	0.41	NPT 1/8	1.09	0.93	0.35	0.59	9/16	0.10	0.2	5
FE532-14N	$12.50	5/32 in. (4 mm) x 1/4 NPT	5/32	0.41	NPT 1/4	1.09	0.93	0.43	0.59	11/16	0.10	0.2	5
FE14-18N	$12.00	1/4 in. x 1/8 NPT	1/4	0.51	NPT 1/8	1.24	1.04	0.35	0.66	9/16	0.16	0.2	5
FE14-14N	$13.00	1/4 in. x 1/4 NPT	1/4	0.51	NPT 1/4	1.34	1.04	0.43	0.66	11/16	0.16	0.3	5
FE14-38N	$15.00	1/4 in. x 3/8 NPT	1/4	0.51	NPT 3/8	1.36	1.04	0.47	0.66	7/8	0.16	0.3	5
FE516-18N	$14.00	5/16 in. (8 mm) x 1/8 NPT	5/16	0.58	NPT 1/8	1.31	1.20	0.35	0.72	9/16	0.24	0.2	5
FE516-14N	$15.00	5/16 in. (8 mm) x 1/4 NPT	5/16	0.58	NPT 1/4	1.39	1.20	0.43	0.72	11/16	0.24	0.3	5
FE516-38N	$15.50	5/16 in. (8 mm) x 3/8 NPT	5/16	0.58	NPT 3/8	1.43	1.20	0.47	0.72	7/8	0.24	0.3	5
FE38-14N	$13.50	3/8 in. x 1/4 NPT	3/8	0.69	NPT 1/4	1.46	1.27	0.43	0.79	11/16	0.28	0.3	5
FE38-38N	$15.50	3/8 in. x 3/8 NPT	3/8	0.69	NPT 3/8	1.50	1.27	0.47	0.79	7/8	0.28	0.3	5
FE38-12N	$16.00	3/8 in. x 1/2 NPT	3/8	0.69	NPT 1/2	1.58	1.27	0.57	0.79	15/16	0.28	0.4	5
FE12-38N	$23.00	1/2 in. x 3/8 NPT	1/2	0.83	NPT 3/8	1.71	1.49	0.47	0.90	7/8	0.35	0.5	5
FE12-12N	$23.50	1/2 in. x 1/2 NPT	1/2	0.83	NPt 1/2	1.79	1.49	0.57	0.90	15/16	0.35	0.6	5
Metric Sizes - dimensions in millimeters (mm)													
FE4M-M5	$12.50	4 mm (5/32 in.) x M5	4	10.5	M5*0.8p	26.7	23.6	8.0	14.9	10	2.5	0.2	5
FE4M-18R	$12.00	4 mm (5/32 in.) x R1/8	4	10.5	R 1/8	27.7	23.6	9.0	14.9	14	2.5	0.2	5
FE4M-14R	$12.50	4 mm (5/32 in.) x R1/4	4	10.5	R 1/4	29.7	23.6	11.0	14.9	17	2.5	0.2	5
FE6M-M5	$12.50	6 mm x M5	6	12.5	M5*0.8p	29.7	26.3	8.0	16.4	12	4.0	0.3	5
FE6M-18R	$12.00	6 mm x R1/8	6	12.5	R 1/8	30.7	26.3	9.0	16.4	14	4.0	0.3	5
FE6M-14R	$12.50	6 mm x R1/4	6	12.5	R 1/4	32.7	26.3	11.0	16.4	17	4.0	0.3	5
FE6M-38R	$15.00	6 mm x R3/8	6	12.5	R 3/8	33.7	26.3	12.0	16.4	22	4.0	0.3	5
FE8M-18R	$13.00	8 mm (5/16 in.) x R1/8	8	14.8	R 1/8	33.4	30.3	9.0	18.7	14	6.0	0.4	5
FE8M-14R	$13.50	8 mm (5/16 in.) x R1/4	8	14.8	R 1/4	35.4	30.3	11.0	18.7	17	6.0	0.5	5
FE8M-38R	$15.00	8 mm (5/16 in.) x R3/8	8	14.8	R 3/8	36.4	30.3	12.0	18.7	22	6.0	0.6	5
FE8M-12R	$15.50	8 mm (5/16 in.) x R1/2	8	14.8	R 1/2	38.4	30.3	14.0	18.7	24	6.0	0.6	5
FE10M-18R	$13.00	10 mm x R1/8	10	17.5	R 1/8	37.2	33.0	9.0	20.1	17	7.0	0.6	5
FE10M-14R	$13.50	10 mm x R1/4	10	17.5	R 1/4	37.2	33.0	11.0	20.1	17	7.0	0.6	5
FE10M-38R	$15.50	10 mm x R3/8	10	17.5	R 3/8	38.2	33.0	12.0	20.1	22	7.0	0.7	5
FE10M-12R	$16.50	10 mm x R1/2	10	17.5	R 1/2	40.2	33.0	14.0	20.1	24	7.0	0.8	5
FE12M-14R	$22.00	12 mm x R1/4	12	20.5	R 1/4	41.6	38.1	11.0	22.8	19	10.0	0.8	5
FE12M-38R	$22.50	12 mm x R3/8	12	20.5	R 3/8	42.6	38.1	12.0	22.8	22	10.0	0.8	5
FE12M-12R	$23.50	12 mm x R1/2	12	20.5	R 1/2	44.6	38.1	14.0	22.8	24	10.0	0.9	5

NITRA PNEUMATICS Pneumatic Push-to-Connect Fittings



NITRA pneumatic push-to-connect male branch tee fitting with rotating thermoplastic (PBT) body, nickel-plated brass threads, stainless steel tube gripping claws and pre-applied Teflon thread sealant (O-ring on #10-32 and M5 threads). For use with polyurethane or nylon tubing. Five fittings per package.



Inch Fitting



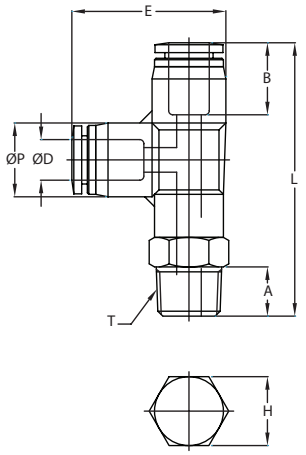
Metric Fitting

NITRA Male Branch Tee

Inch Sizes - dimensions in inches (in.)

Part No.	Price	Size	øD	øP	T	L	E	A	B	H (Hex)	Orifice	Package Weight (lbs)	Qty. per pack
MBT18-10N	$15.50	1/8 in. x #10-32	1/8	0.30	UNF 10-32	0.75	1.44	0.14	0.44	5/16	0.10	0.1	5
MBT18-18N	$13.00	1/8 in. x 1/8 NPT	1/8	0.30	NPT 1/8	0.77	1.44	0.33	0.44	7/16	0.10	0.1	5
MBT532-18N	$9.75	5/32 in. (4 mm) x 1/8 NPT	5/32	0.41	NPT 1/8	1.19	1.47	0.33	0.59	7/16	0.12	0.2	5
MBT532-14N	$10.00	5/32 in. (4 mm) x 1/4 NPT	5/32	0.41	NPT 1/4	1.31	1.47	0.41	0.59	9/16	0.12	0.2	5
MBT14-18N	$10.50	1/4 in. x 1/8 NPT	1/4	0.51	NPT 1/8	1.35	1.61	0.33	0.67	1/2	0.18	0.2	5
MBT14-14N	$11.00	1/4 in. x 1/4 NPT	1/4	0.51	NPT 1/4	1.46	1.61	0.41	0.67	9/16	0.18	0.3	5
MBT14-38N	$14.00	1/4 in. x 3/8 NPT	1/4	0.51	NPT 3/8	1.50	1.61	0.45	0.67	11/16	0.18	0.3	5
MBT516-18N	$12.00	5/16 in. (8 mm) x 1/8 NPT	5/16	0.59	NPT 1/8	1.46	1.79	0.33	0.72	9/16	0.24	0.3	5
MBT516-14N	$12.50	5/16 in. (8 mm) x 1/4 NPT	5/16	0.59	NPT 1/4	1.54	1.79	0.41	0.72	9/16	0.24	0.3	5
MBT516-38N	$13.00	5/16 in. (8 mm) x 3/8 NPT	5/16	0.59	NPT 3/8	1.58	1.79	0.45	0.72	11/16	0.24	0.3	5
MBT38-18N	$12.50	3/8 in. x 1/8 NPT	3/8	0.69	NPT 1/8	1.52	1.87	0.33	0.79	11/16	0.20	0.3	5
MBT38-14N	$13.00	3/8 in. x 1/4 NPT	3/8	0.69	NPT 1/4	1.60	1.87	0.41	0.79	11/16	0.28	0.4	5
MBT38-38N	$13.00	3/8 in. x 3/8 NPT	3/8	0.69	NPT 3/8	1.64	1.87	0.45	0.79	11/16	0.28	0.4	5
MBT38-12N	$18.00	3/8 in. x 1/2 NPT	3/8	0.69	NPT 1/2	1.76	1.87	0.57	0.79	7/8	0.28	0.5	5
MBT12-14N	$18.00	1/2 in. x 1/4 NPT	1/2	0.83	NPT 1/4	1.81	2.22	0.41	0.90	3/4	0.31	0.4	5
MBT12-38N	$18.50	1/2 in. x 3/8 NPT	1/2	0.83	NPT 3/8	1.85	2.22	0.45	0.90	3/4	0.35	0.5	5
MBT12-12N	$19.00	1/2 in. x 1/2 NPT	1/2	0.83	NPT 1/2	1.97	2.22	0.57	0.90	7/8	0.35	0.6	5
Metric Sizes - dimensions in millimeters (mm)													
MBT4M-M5	$11.00	4 mm (5/32 in.) x M5	4	10.5	M5*0.8p	25.7	37.3	4.0	14.9	10	2.0	0.2	5
MBT4M-18R	$10.00	4 mm (5/32 in.) x R1/8	4	10.5	R 1/8	29.7	37.3	8.0	14.9	10	3.0	0.2	5
MBT4M-14R	$10.00	4 mm (5/32 in.) x R1/4	4	10.5	R 1/4	31.7	37.3	10.0	14.9	14	3.0	0.2	5
MBT6M-M5	$11.50	6 mm x M5	6	12.5	M5*0.8p	28.7	40.7	4.0	16.4	12	2.0	0.3	5
MBT6M-18R	$10.00	6 mm x R1/8	6	12.5	R 1/8	32.7	40.7	8.0	16.4	12	4.5	0.3	5
MBT6M-14R	$10.50	6 mm x R1/4	6	12.5	R 1/4	35.7	40.7	10.0	16.4	14	4.5	0.3	5
MBT6M-38R	$13.50	6 mm x R3/8	6	12.5	R 3/8	36.7	40.7	11.0	16.4	17	4.5	0.3	5
MBT8M-18R	$13.00	8 mm (5/16 in.) x R1/8	8	14.8	R 1/8	35.4	45.1	8.0	18.7	14	6.0	0.4	5
MBT8M-14R	$12.00	8 mm (5/16 in.) x R1/4	8	14.8	R 1/4	38.4	45.1	10.0	18.7	14	6.0	0.5	5
MBT8M-38R	$13.50	8 mm (5/16 in.) x R3/8	8	14.8	R 3/8	39.4	45.1	11.0	18.7	17	6.0	0.6	5
MBT8M-12R	$15.00	8 mm (5/16 in.) x R1/2	8	14.8	R 1/2	42.4	45.1	14.0	18.7	21	6.5	0.6	5
MBT10M-18R	$15.50	10 mm x R1/8	10	17.5	R 1/8	37.2	47.4	8.0	20.1	17	6.0	0.6	5
MBT10M-14R	$13.00	10 mm x R1/4	10	17.5	R 1/4	40.2	47.4	10.0	20.1	17	7.0	0.6	5
MBT10M-38R	$13.50	10 mm x R3/8	10	17.5	R 3/8	41.2	47.4	11.0	20.1	17	7.0	0.7	5
MBT10M-12R	$18.50	10 mm x R1/2	10	17.5	R 1/2	44.2	47.4	14.0	20.1	21	7.0	0.8	5
MBT12M-14R	$18.00	12 mm x R1/4	12	20.5	R 1/4	44.6	55.3	10.0	22.8	19	7.0	0.8	5
MBT12M-38R	$18.00	12 mm x R3/8	12	20.5	R 3/8	45.6	55.3	11.0	22.8	19	10.0	0.8	5
MBT12M-12R	$18.50	12 mm x R1/2	12	20.5	R 1/2	48.6	55.3	14.0	22.8	21	10.0	0.9	5
MBT16M-38R	$25.00	16 mm x R3/8	16	25.5	R 3/8	55.5	65.6	11.0	24.1	24	10.0	0.9	5
MBT16M-12R	$26.00	16 mm x R1/2	16	25.5	R 1/2	58.5	65.6	14.0	24.1	24	13.0	0.9	5

NITRA PNEUMATICS Pneumatic Push-to-Connect Fittings



NITRA pneumatic push-to-connect male run tee fitting with rotating thermoplastic (PBT) body, nickel-plated brass threads, stainless steel tube gripping claws and pre-applied Teflon thread sealant (O-ring on #10-32 and M5 threads). For use with polyurethane or nylon tubing. Five fittings per package.



Inch Fitting

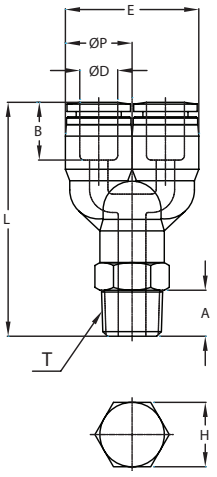


Metric Fitting

NITRA Male Run Tee

Part No.	Price	Size	øD	øP	T	L	E	A	B	H (Hex)	Orifice	Package Weight (lbs)	Qty. per pack
Inch Sizes - dimensions in inches (in.)													
MRT18-10N	$19.00	1/8 in. x #10-32	1/8	0.30	UNF 10-32	1.14	0.69	0.15	0.44	5/16	0.10	0.1	5
MRT18-18N	$16.00	1/8 in. x 1/8 NPT	1/8	0.30	NPT 1/8	1.16	0.69	0.33	0.44	7/16	0.10	0.1	5
MRT532-18N	$11.00	5/32 in. (4 mm) x 1/8 NPT	5/32	0.42	NPT 1/8	1.83	0.98	0.33	0.59	7/16	0.12	0.1	5
MRT532-14N	$11.50	5/32 in. (4 mm) x 1/4 NPT	5./32	0.42	NPT 1/4	1.91	0.98	0.41	0.59	9/16	0.12	0.2	5
MRT14-18N	$11.50	1/4 in. x 1/8 NPT	1/4	0.51	NPT 1/8	1.94	1.10	0.33	0.66	1/2	0.18	0.2	5
MRT14-14N	$12.00	1/4 in. x 1/4 NPT	1/4	0.51	NPT 1/4	2.05	1.10	0.41	0.66	9/16	0.18	0.2	5
MRT14-38N	$14.00	1/4 in. x 3/8 NPT	1/4	0.51	NPT 3/8	2.09	1.10	0.45	0.66	11/16	0.18	0.4	5
MRT516-18N	$12.50	5/16 in. (8 mm) x 1/8 NPT	5/16	0.60	NPT 1/8	2.11	1.22	0.33	0.72	9/16	0.24	0.3	5
MRT516-14N	$12.50	5/16 in. (8 mm) x 1/4 NPT	5/16	0.60	NPT 1/4	2.19	1.22	0.41	0.72	9/16	0.24	0.3	5
MRT516-38N	$14.50	5/16 in. (8 mm) x 3/8 NPT	5/16	0.60	NPT 3/8	2.23	1.22	0.45	0.72	11/16	0.24	0.3	5
MRT38-18N	$15.50	3/8 in. x 1/8 NPT	3/8	0.69	NPT 1/8	2.25	1.35	0.33	0.79	11/16	0.20	0.3	5
MRT38-14N	$15.50	3/8 in. x 1/4 NPT	3/8	0.69	NPT 1/4	2.33	1.35	0.41	0.79	11/16	0.28	0.3	5
MRT38-38N	$16.00	3/8 in. x 3/8 NPT	3/8	0.69	NPT 3/8	2.37	1.35	0.45	0.79	11/16	0.28	0.4	5
MRT38-12N	$20.50	3/8 in. x 1/2 NPT	3/8	0.69	NPT 1/2	2.48	1.35	0.57	0.79	7/8	0.28	0.5	5
MRT12-14N	$19.00	1/2 in. x 1/4 NPT	1/2	0.83	NPT 1/4	2.59	1.60	0.41	0.90	3/4	0.31	0.4	5
MRT12-38N	$20.00	1/2 in. x 3/8 NPT	1/2	0.83	NPT 3/8	2.63	1.60	0.45	0.90	3/4	0.39	0.5	5
MRT12-12N	$21.00	1/2 in. x 1/2 NPT	1/2	0.83	NPT 1/2	2.74	1.60	0.57	0.90	7/8	0.39	0.6	5
Metric Sizes - dimensions in millimeters (mm)													
MRT4M-M5	$12.00	4 mm (5/32 in.) x M5	4	10.6	M5*0.8p	41.6	24.9	4.0	14.9	10	2.0	0.1	5
MRT4M-18R	$11.00	4 mm (5/32 in.) x R1/8	4	10.6	R 1/8	45.1	24.9	8.0	14.9	10	3.0	0.1	5
MRT4M-14R	$11.50	4 mm (5/32 in.) x R1/4	4	10.6	R 1/4	47.1	24.9	10.0	14.9	14	3.0	0.2	5
MRT6M-M5	$12.00	6 mm x M5	6	13.0	M5*0.8p	44.9	27.9	4.0	16.4	12	2.0	0.2	5
MRT6M-18R	$11.00	6 mm x R1/8	6	13.0	R 1/8	48.4	27.9	8.0	16.4	12	4.5	0.4	5
MRT6M-14R	$11.50	6 mm x R1/4	6	13.0	R 1/4	51.4	27.9	10.0	16.4	14	4.5	0.3	5
MRT6M-38R	$13.50	6 mm x R3/8	6	13.0	R 3/8	52.4	27.9	11.0	16.4	17	4.5	0.3	5
MRT8M-18R	$13.50	8 mm x R1/8	8	15.0	R 1/8	52.5	31.3	8.0	18.7	14	6.0	0.4	5
MRT8M-14R	$14.00	8 mm (5/16 in.) x R1/4	8	15.0	R 1/4	55.5	31.3	10.0	18.7	14	6.0	0.5	5
MRT8M-38R	$15.00	8 mm (5/16 in.) x R3/8	8	15.0	R 3/8	56.5	31.3	11.0	18.7	17	6.0	0.4	5
MRT8M-12R	$16.00	8 mm (5/16 in.) x R1/2	8	15.0	R 1/2	59.5	31.3	14.0	18.7	21	6.5	0.5	5
MRT10M-18R	$18.00	10 mm x R1/8	10	18.0	R 1/8	55.7	34.7	8.0	20.1	17	6.0	0.6	5
MRT10M-14R	$16.00	10 mm x R1/4	10	18.0	R 1/4	58.7	34.7	10.0	20.1	17	7.0	0.6	5
MRT10M-38R	$16.50	10 mm x R3/8	10	18.0	R 3/8	59.7	34.7	11.0	20.1	17	7.0	0.7	5
MRT10M-12R	$20.50	10 mm x R1/2	10	18.0	R 1/2	62.7	34.7	14.0	20.1	21	7.0	0.8	5
MRT12M-14R	$19.50	12 mm x R1/4	12	20.8	R 1/4	65.0	40.5	10.0	22.8	19	7.0	0.8	5
MRT12M-38R	$19.50	12 mm x R3/8	12	20.8	R 3/8	66.0	40.5	11.0	22.8	19	10.0	0.8	5
MRT12M-12R	$20.50	12 mm x R1/2	12	20.8	R 1/2	69.0	40.5	14.0	22.8	21	10.0	0.9	5

Pneumatic Push-to-Connect Fittings



NITRA pneumatic push-to-connect male Y fitting with rotating thermoplastic (PBT) body, nickel-plated brass threads, stainless steel tube gripping claws and pre-applied Teflon thread sealant. For use with polyurethane or nylon tubing. Five fittings per package.



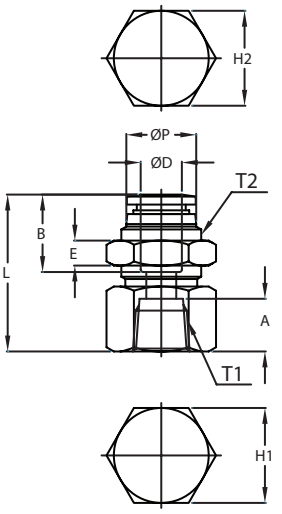
Inch Fitting



Metric Fitting

NITRA Male Y													
Inch Sizes - dimensions in inches (in.)													
Part No.	*Price*	*Size*	*øD*	*øP*	*T*	*L*	*E*	*A*	*B*	*H (Hex)*	*Orifice*	*Package Weight (lbs)*	*Qty. per pack*
MY532-18N	$11.00	5/32 in. (4 mm) x 1/8 NPT	5/32	0.41	NPT 1/8	1.73	0.83	0.33	0.61	7/16	0.12	0.1	5
MY532-14N	$11.50	5/32 in. (4 mm) x 1/4 NPT	5/32	0.41	NPT 1/4	1.85	0.83	0.41	0.61	9/16	0.12	0.2	5
MY14-18N	$12.50	1/4 in. x 1/8 NPT	1/4	0.51	NPT 1/8	1.88	1.02	0.33	0.70	1/2	0.18	0.2	5
MY14-14N	$12.50	1/4 in. x 1/4 NPT	1/4	0.51	NPT 1/4	1.99	1.02	0.41	0.70	9/16	0.18	0.2	5
MY14-38N	$14.00	1/4 in. x 3/8 NPT	1/4	0.51	NPT 3/8	2.03	1.02	0.45	0.70	11/16	0.18	0.3	5
MY516-18N	$13.00	5/16 in. (8 mm) x 1/8 NPT	5/16	0.57	NPT 1/8	1.92	1.14	0.33	0.73	9/16	0.24	0.2	5
MY516-14N	$13.00	5/16 in. (8 mm) x 1/4 NPT	5/16	0.57	NPT 1/4	1.99	1.14	0.41	0.73	9/16	0.24	0.3	5
MY516-38N	$14.50	5/16 in. (8 mm) x 3/8 NPT	5/16	0.57	NPT 3/8	2.04	1.14	0.45	0.73	9/16	0.24	0.3	5
MY38-18N	$15.50	3/8 in. x 1/8 NPT	3/8	0.69	NPT 1/8	2.07	1.39	0.33	0.79	11/16	0.20	0.3	5
MY38-14N	$16.00	3/8 in. x 1/4 NPT	3/8	0.69	NPT 1/4	2.15	1.39	0.41	0.79	11/16	0.28	0.3	5
MY38-38N	$16.00	3/8 in. x 3/8 NPT	3/8	0.69	NPT 3/8	2.19	1.39	0.45	0.79	11/16	0.28	0.4	5
MY38-12N	$20.00	3/8 in. x 1/2 NPT	3/8	0.69	NPT 1/2	2.31	1.39	0.57	0.79	7/8	0.28	0.4	5
MY12-14N	$19.00	1/2 in. x 1/4 NPT	1/2	0.83	NPT 1/4	2.54	1.65	0.41	0.90	3/4	0.28	0.4	5
MY12-38N	$20.50	1/2 in. x 3/8 NPT	1/2	0.83	NPT 3/8	2.58	1.65	0.45	0.90	3/4	0.28	0.6	5
MY12-12N	$21.50	1/2 in. x 1/2 NPT	1/2	0.83	NPT 1/2	2.70	1.65	0.57	0.90	7/8	0.28	0.8	5
Metric Sizes - dimensions in millimeters (mm)													
MY4M-M5	$12.00	4 mm (5/32 in.) x M5	4	10.5	M5*0.8p	39.5	21.0	4.0	15.6	10	2.5	0.1	5
MY4M-18R	$11.00	4 mm (5/32 in.) x R1/8	4	10.5	R 1/8	43.5	21.0	8.0	15.6	10	3.0	0.1	5
MY4M-14R	$11.50	4 mm (5/32 in.) x R1/4	4	10.5	R 1/4	45.5	21.0	10.0	15.6	14	3.0	0.2	5
MY6M-M5	$13.00	6 mm x M5	6	12.5	M5*0.8p	40.4	25.0	4.0	16.9	12	2.5	0.2	5
MY6M-18R	$12.00	6 mm x R1/8	6	12.5	R 1/8	44.4	25.0	8.0	16.9	12	4.5	0.3	5
MY6M-14R	$12.00	6 mm x R1/4	6	12.5	R 1/4	47.4	25.0	10.0	16.9	14	4.5	0.3	5
MY6M-38R	$13.50	6 mm x R3/8	6	12.5	R 3/8	48.4	25.0	11.0	16.9	17	4.5	0.3	5
MY8M-18R	$14.50	8 mm (5/16 in.) x R1/8	8	14.5	R 1/8	47.8	29.0	8.0	19.0	14	6.0	0.4	5
MY8M-14R	$14.00	8 mm (5/16 in.) x R1/4	8	14.5	R 1/4	50.8	29.0	10.0	19.0	14	6.0	0.4	5
MY8M-38R	$15.00	8 mm (5/16 in.) x R3/8	8	14.5	R 3/8	51.8	29.0	11.0	19.0	17	6.0	0.4	5
MY8M-12R	$15.50	8 mm (5/16 in.) x R1/2	8	14.5	R 1/2	54.8	29.0	14.0	19.0	21	6.5	0.6	5
MY10M-18R	$17.00	10 mm x R1/8	10	17.6	R 1/8	51.2	35.2	8.0	20.2	17	6.0	0.8	5
MY10M-14R	$16.00	10 mm x R1/4	10	17.6	R 1/4	54.2	35.2	10.0	20.2	17	7.0	0.8	5
MY10M-38R	$16.50	10 mm x R3/8	10	17.6	R 3/8	55.2	35.2	11.0	20.2	17	7.0	0.9	5
MY10M-12R	$20.00	10 mm x R1/2	10	17.6	R 1/2	58.2	35.2	14.0	20.2	21	7.0	1.0	5
MY12M-14R	$19.50	12 mm x R1/4	12	21.0	R 1/4	59.1	42.0	10.0	22.6	19	7.0	1.0	5
MY12M-38R	$20.00	12 mm x R3/8	12	21.0	R 3/8	60.1	42.0	11.0	22.6	19	10.0	1.1	5
MY12M-12R	$21.00	12 mm x R1/2	12	21.0	R 1/2	63.1	42.0	14.0	22.6	21	10.0	1.2	5

Pneumatic Push-to-Connect Fittings



NITRA pneumatic push-to-connect bulkhead female straight fitting with nickel-plated brass body and stainless steel tube gripping claws. For use with polyurethane or nylon tubing. Five fittings per package.



Inch Fitting



Metric Fitting

NITRA Bulkhead Female															
Inch Sizes - dimensions in inches (in.)															
Part No.	*Price*	*Size*	*øD*	*øP*	*T1*	*T2*	*L*	*E*	*A*	*B*	*H1 (Hex)*	*H2 (Hex)*	*Orifice*	*Package Weight (lbs)*	*Qty. per pack*
FB532-18N	$14.00	5/32 in. (4 mm) x 1/8 NPT	5/32	0.39	NPT 1/8	M12*1.0p	1.06	0.16	0.37	0.58	9/16	14 mm	0.12	0.2	5
FB14-18N	$15.00	1/4 in. x 1/8 NPT	1/4	0.51	NPT 1/8	M14*1.0p	1.22	0.16	0.37	0.67	11/16	17 mm	0.20	0.2	5
FB14-14N	$15.00	1/4 in. x 1/4 NPT	1/4	0.51	NPT 1/4	M14*1.0p	1.22	0.16	0.45	0.67	11/16	17 mm	0.20	0.2	5
FB516-14N	$17.50	5/16 in. (8 mm) x 1/4 NPT	5/16	0.55	NPT 1/4	M16*1.0p	1.24	0.19	0.45	0.72	3/4	19 mm	0.24	0.5	5
FB516-38N	$18.50	5/16 in. (8 mm) x 3/8 NPT	5/16	0.55	NPT 3/8	M16*1.0p	1.27	0.19	0.47	0.72	7/8	22 mm	0.24	0.5	5
FB38-14N	$24.00	3/8 in. x 1/4 NPT	3/8	0.65	NPT 1/4	M20*1.0p	1.40	0.20	0.45	0.77	15/16	24 mm	0.31	0.5	5
FB38-38N	$24.50	3/8 in. x 3/8 NPT	3/8	0.65	NPT 3/8	M20*1.0p	1.40	0.20	0.49	0.77	15/16	24 mm	0.31	0.6	5
FB12-14N	$25.50	1/2 in. x 1/4 NPT	1/2	0.81	NPT 1/4	M22*1.0p	1.57	0.20	0..45	0.89	15/16	26 mm	0.39	0.9	5
FB12-38N	$26.00	1/2 in. x 3/8 NPT	1/2	0.81	NPT 3/8	M22*1.0p	1.57	0.20	0.49	0.89	15/16	26 mm	0.39	0.9	5
FB12-12N	$29.50	1/2 in. x 1/2 NPT	1/2	0.81	NPT 1/2	M22*1.0p	1.57	0.20	0.57	0.89	15/16	26 mm	0.39	0.9	5
Metric Sizes - dimensions in millimeters (mm)															
FB4M-18R	$14.00	4 mm (5/32 in.) x R1/8	4	10.0	R 1/8	M12*1.0p	27.0	4	9.0	14.7	14	14	3.0	0.2	5
FB4M-14R	$14.50	4 mm (5/32 in.) x R1/4	4	10.0	R 1/4	M12*1.0p	29.0	4	11.0	14.7	17	14	3.0	0.3	5
FB6M-18R	$14.50	6 mm x R1/8	6	12.0	R 1/8	M14*1.0p	30.2	4	9.0	16.4	17	17	5.0	0.3	5
FB6M-14R	$14.50	6 mm x R1/4	6	12.0	R 1/4	M14*1.0p	30.2	4	11.0	16.4	17	17	5.0	0.6	5
FB6M-38R	$23.50	6 mm x R3/8	6	12.0	R 3/8	M14*1.0p	31.2	4	12.0	16.4	22	17	5.0	0.6	5
FB8M-18R	$19.00	8 mm (5/16 in.) x R1/8	8	14.0	R 1/8	M16*1.0p	31.4	5	9.0	18.4	19	19	6.0	1.0	5
FB8M-14R	$19.50	8 mm (5/16 in.) x R1/4	8	14.0	R 1/4	M16*1.0p	31.4	5	11.0	18.4	19	19	6.0	1.2	5
FB8M-38R	$20.00	8 mm (5/16 in.) x R3/8	8	14.0	R 3/8	M16*1.0p	32.4	5	12.0	18.4	22	19	6.0	1.2	5
FB8M-12R	$21.00	8 mm (5/16 in.) x R1/2	8	14.0	R 1/2	M16*1.0p	34.4	5	14.0	18.4	24	19	6.0	1.3	5
FB10M-18R	$23.50	10 mm x R1/8	10	16.1	R 1/8	M20*1.0p	33.5	5	9.0	19.6	24	24	8.0	1.3	5
FB10M-14R	$24.00	10 mm x R1/4	10	16.1	R 1/4	M20*1.0p	33.5	5	11.0	19.6	24	24	8.0	1.3	5
FB10M-38R	$24.50	10 mm x R3/8	10	16.1	R 3/8	M20*1.0p	33.5	5	12.0	19.6	24	24	8.0	1.4	5
FB10M-12R	$25.00	10 mm x R1/2	10	16.1	R 1/2	M20*1.0p	35.5	5	14.0	19.6	24	24	8.0	1.5	5
FB12M-14R	$26.00	12 mm x R1/4	12	19.0	R 1/4	M22*1.0p	38.3	5	11.0	21.9	24	26	10.0	1.5	5
FB12M-38R	$26.00	12 mm x R3/8	12	19.0	R 3/8	M22*1.0p	38.3	5	12.0	21.9	24	26	10.0	1.6	5
FB12M-12R	$29.00	12 mm x R1/2	12	19.0	R 1/2	M22*1.0p	40.3	5	14.0	21.9	24	26	10.0	1.7	5

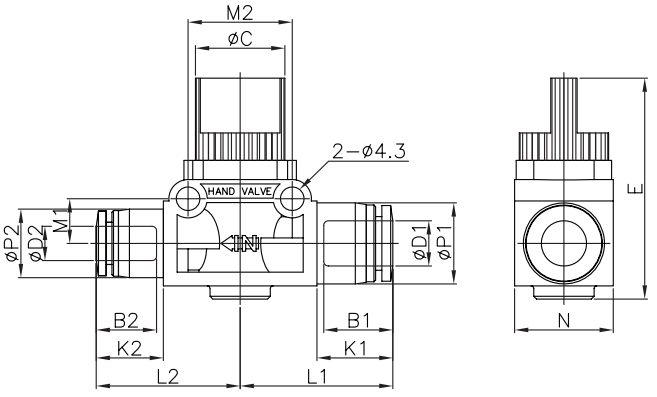
NITRA PNEUMATICS Pneumatic Union Hand Valve

Union Hand Valve

NITRA Pneumatic Push-to-Connect union straight manual hand valve bodies are made of a strong thermoplastic (PBT) and have stainless steel tube gripping claws. In the closed (off) position, upstream air pressure is blocked while downstream air pressure is vented to atmosphere. **NITRA** Polyurethane and Nylon 12 tubing is easily connected by simply inserting the tubing end into the fitting. To release the tubing, press the circular release ring and the tubing can be easily pulled out. Each package contains two valves.

Features

- Inch and metric sizes available
- Tough thermoplastic bodies and stainless steel tube gripping claws
- Release rings are color coded to differentiate between inch and metric sizes
- In the closed (off) position, upstream air pressure is blocked while downstream air pressure is vented to atmosphere.

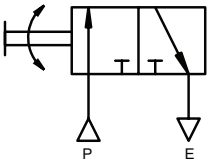




Inch Fitting



Metric Fitting



NITRA Union Hand Valve																			
Inch Sizes - dimensions in inches (in.)																			
Part No.	***Price***	***Size***	***øD1***	***øD2***	***øP1***	***øP2***	***øC***	***N***	***E***	***B1***	***B2***	***K1***	***K2***	***L1***	***L2***	***M1***	***M2***	***Package Weight (lbs)***	***Qty. per pack***
HVU14	$14.00	1/4 in.	1/4	1/4	0.51	0.51	0.64	0.71	1.59	0.66	0.66	0.49	0.49	1.04	1.04	0.32	0.75	0.1	2
HVU516	$15.00	5/16 in. (8 mm)	5/16	5/16	0.58	0.58	0.69	0.70	1.59	0.72	0.72	0.53	0.53	1.08	1.08	0.32	0.75	0.1	2
HVU38	$16.50	3/8 in.	3/8	3/8	0.69	0.69	0.76	0.83	1.59	0.79	0.79	0.56	0.56	1.21	1.21	0.43	0.94	0.2	2
HVU12	$17.50	1/2 in.	1/2	1/2	0.83	0.83	0.76	0.83	1.59	0.90	0.90	0.70	0.70	1.35	1.35	0.43	0.94	0.2	2
Metric Sizes - dimensions in millimeters (mm)																			
HVU6M	$13.00	6 mm	6	6	12.5	12.5	16.3	18.0	40.3	16.4	16.4	12.3	12.3	26.3	26.3	8.2	19.0	0.1	2
HVU8M	$14.00	8 mm (5/16 in.)	8	8	14.8	14.8	18.0	18.7	40.3	18.7	18.7	13.9	13.9	27.9	27.9	8.2	19.0	0.1	2
HVU10M	$15.00	10 mm	10	10	17.5	17.5	19.3	21.2	40.5	20.1	20.1	14.4	14.4	30.9	30.9	10.9	24.0	0.2	2
HVU12M	$16.00	12 mm	12	12	20.5	20.5	19.3	21.2	40.5	22.8	22.8	17.6	17.6	34.1	34.1	10.9	24.0	0.2	2

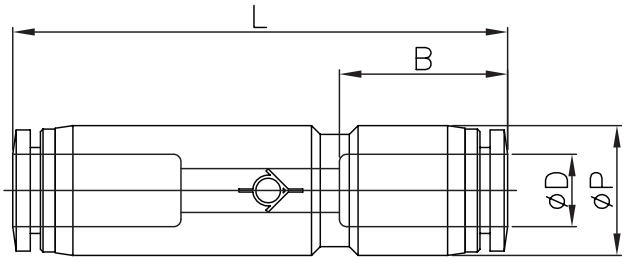
Pneumatic Union Check Valve

Union Check Valve

NITRA Pneumatic Push-to-Connect union straight check valve bodies are made of a strong thermoplastic (PBT) or aluminum and have stainless steel tube gripping claws. The check valve allows air flow in one direction and blocks air flow in the reverse direction. **NITRA** Polyurethane and Nylon 12 tubing is easily connected by simply inserting the tubing end into the fitting. To release the tubing, press the circular release ring and the tubing can be easily pulled out. Each package contains five valves.

Features

- Inch and metric sizes available
- Tough thermoplastic or aluminum bodies and stainless steel tube gripping claws
- Release rings are color coded to differentiate between inch and metric sizes
- Allows air flow in one direction and blocks air flow in the reverse direction.

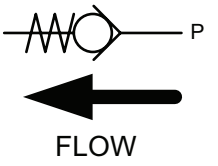




Inch Fitting



Metric Fitting



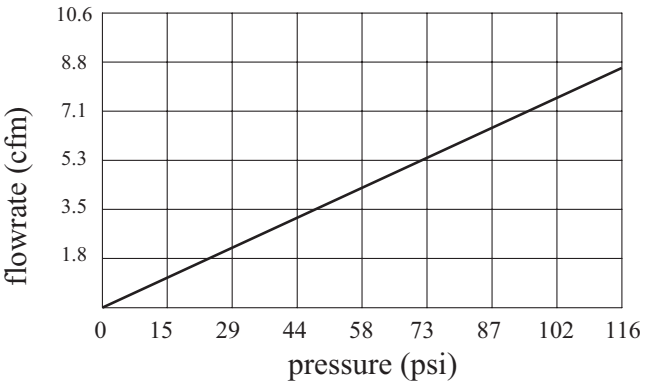
NITRA Union Check Valve								
Inch Sizes - dimensions in inches (in.)								
Part No.	***Price***	***Size***	***øD***	***øP***	***L***	***B***	***Package Weight (lbs)***	***Qty. per pack***
CVU532	$29.00	5/32 in. (4 mm)	5/32	0.41	1.67	0.59	0.1	5
CVU14	$32.50	1/4 in.	1/4	0.51	1.91	0.66	0.1	5
CVU38*	$89.00	3/8 in.	3/8	0.91	2.55	0.79	0.5	5
Metric Sizes - dimensions in millimeters (mm)								
CVU6M	$29.50	6 mm	6	12.5	47.5	16.4	0.1	5
CVU8M	$36.00	8 mm (5/16 in.)	8	14.8	56.4	18.7	0.2	5

**** Aluminum body***

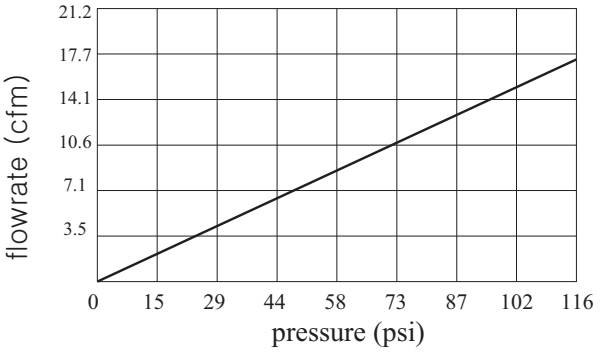
Pneumatic Union Check Valve

Flowrate Charts

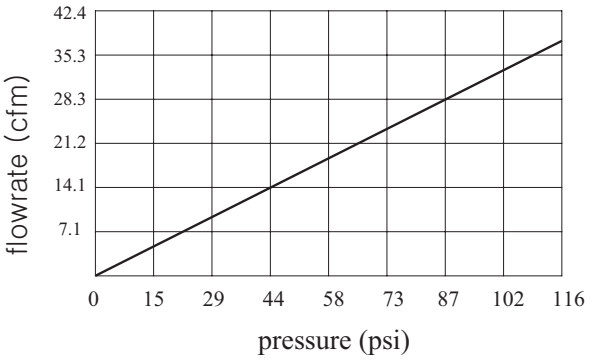
CVU532



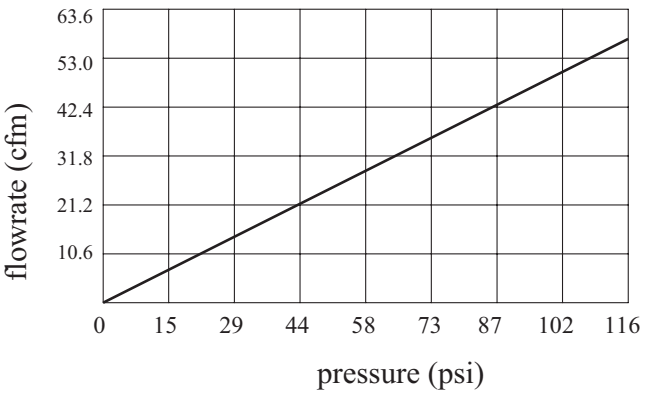
CVU14
CVU6M



CVU8M



CVU38



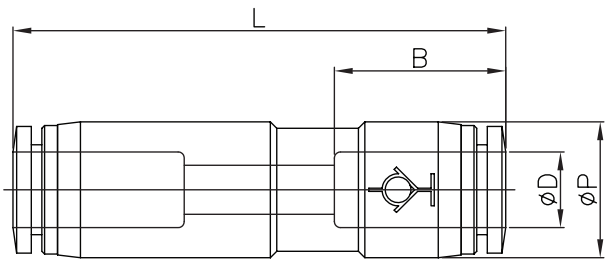
Pneumatic Union Stop Valve

Union Stop Valve

NITRA Pneumatic Push-to-Connect union straight stop valve bodies are made of a strong thermoplastic (PBT) and have stainless steel tube gripping claws. When the downstream tube is removed from the stop valve, upstream air pressure is blocked. **NITRA** Polyurethane and Nylon 12 tubing is easily connected by simply inserting the tubing end into the fitting. To release the tubing, press the circular release ring and the tubing can be easily pulled out. Each package contains five valves.

Features

- Inch and metric sizes available
- Tough thermoplastic bodies and stainless steel tube gripping claws
- Release rings are color coded to differentiate between inch and metric sizes
- When the downstream tube is removed from the stop valve, upstream air pressure is blocked.

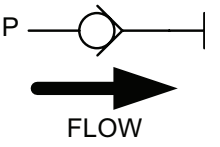




Inch Fitting



Metric Fitting



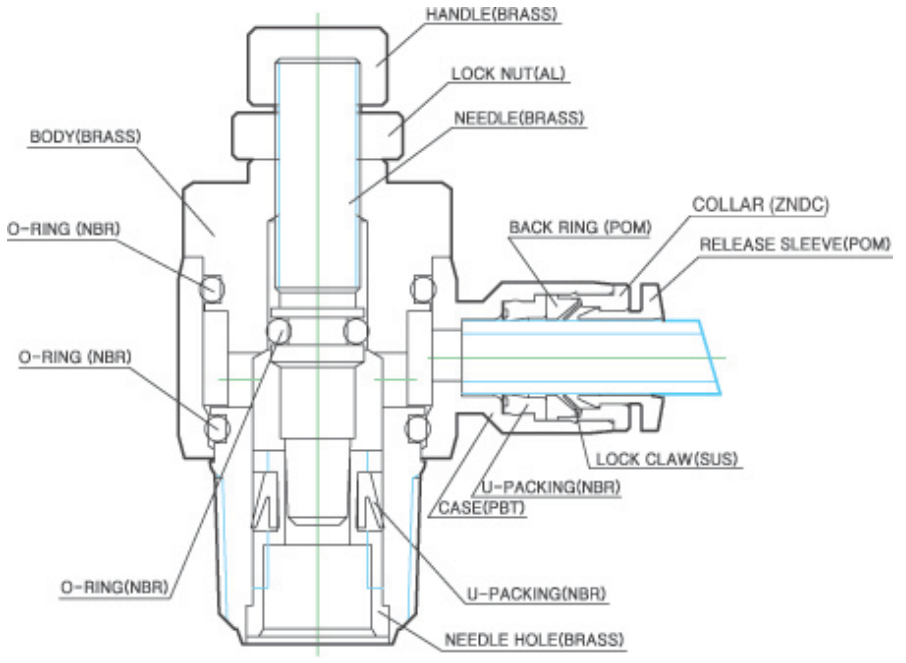
NITRA Union Stop Valve								
Inch Sizes - dimensions in inches (in.)								
Part No.	***Price***	***Size***	***øD***	***øP***	***L***	***B***	***Package Weight (lbs)***	***Qty. per pack***
SVU532	$27.00	5/32 in. (4 mm)	5/32	0.41	1.66	0.59	0.1	5
SVU14	$32.00	1/4 in.	1/4	0.51	1.85	0.66	0.1	5
SVU38	$40.50	3/8 in.	3/8	0.69	2.29	0.79	0.2	5
SVU12	$42.50	1/2 in.	1/2	0.83	2.67	0.90	0.4	5
Metric Sizes - dimensions in millimeters (mm)								
SVU6M	$29.00	6 mm	6	12.5	46.0	16.4	0.1	5
SVU8M	$33.00	8 mm (5/16 in.)	8	14.8	53.7	18.7	0.1	5
SVU10M	$37.00	10 mm	10	17.5	58.2	20.1	0.2	5
SVU12M	$38.50	12 mm	12	20.5	67.1	22.8	0.3	5

Pneumatic Push-to-Connect Flow Control (Speed Controller) Valves

NITRA Pneumatic Push-to-Connect Flow Control (Speed Controller) Valves provide accurate airflow regulation for precise speed control of pneumatic cylinders. **NITRA** flow control valve bodies are made of a strong thermoplastic (PBT) and have stainless steel tube gripping claws. Threaded components are made of nickel-plated brass and have pre-applied Teflon thread sealant (O-ring on #10-32, M5 and G threads). Flow control valve bodies can be rotated after installation to allow for variations in piping direction. **NITRA** Polyurethane and Nylon 12 tubing is easily connected by simply inserting the tubing end into the fitting. To release the tubing, press the circular release ring and the tubing can be easily pulled out.

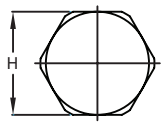
Features

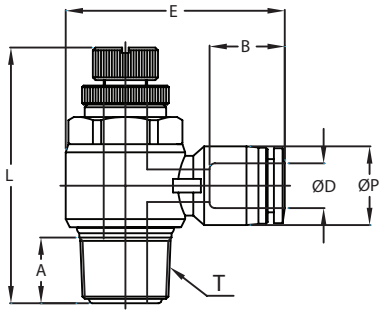
- Meter-in , meter-out and in-line configurations
- Inch and metric sizes available
- NPT, BSPT (R) and BSPP (G) threads available
- Tough thermoplastic bodies, stainless steel tube gripping claws, nickel-plated threads with pre-applied Teflon sealant (O-ring on #10-32, M5 and G threads)
- Bodies can be rotated after installation
- Release rings are color coded to differentiate between meter-in and meter-out
- For use with air only.
- Working pressure: -29.5" Hg to 150 psi.
- Working Temperature 32 to 140°F (0 to 60°C)



Flow Control Valve Cut-away Diagram

Pneumatic Push-to-Connect Flow Control (Speed Controller) Valves





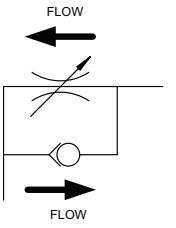
NITRA pneumatic push-to-connect **meter-in** flow control valve (speed controller) elbow with rotating thermoplastic (PBT) body, nickel-plated brass threads, stainless steel tube griping claws, and pre-applied Teflon thread sealant (#10-32, M5 and G threads have O-ring instead of thread sealant). For use with polyurethane or nylon tubing. Two fittings per package.



Inch/Metric Flow Control Valve



G-Thread (BSPP) Flow Control Valve



NITRA Elbow Flow Control Valve Meter-In													
Inch Sizes - dimensions in inches (in.)													
Part No.	*Price*	*Size*	*øD*	*øP*	*T*	*L*		*E*	*A*	*B*	*H (Hex)*	*Package Weight (lbs)*	*Qty. per pack*
						Min.	*Max.*						
FVR18-10N	$10.50	1/8 in. x #10-32	1/8	0.30	UNF 10-32	1.06	1.15	0.85	0.14	0.44	5/16	0.1	2
FVR532-10N	$8.25	5/32 in. (4 mm) x #10-32	5/32	0.41	UNF 10-32	1.06	1.15	1.04	0.14	0.59	5/16	0.1	2
FVR532-18N	$11.00	5/32 in. (4 mm) x 1/8 NPT	5/32	0.41	NPT 1/8	1.37	1.57	1.21	0.32	0.59	7/16	0.1	2
FVR14-10N	$10.50	1/4 in. x #10-32	1/4	0.51	UNF 10-32	1.06	1.15	1.13	0.14	0.66	5/16	0.1	2
FVR14-18N	$11.50	1/4 in. x 1/8 NPT	1/4	0.51	NPT 1/8	1.37	1.57	1.26	0.32	0.66	7/16	0.1	2
FVR14-14N	$12.50	1/4 in. x 1/4 NPT	1/4	0.51	NPT 1/4	1.60	1.85	1.41	0.43	0.66	19/32	0.2	2
FVR516-18N	$13.50	5/16 in. (8 mm) x 1/8 NPT	5/16	0.57	NPT 1/8	1.37	1.56	1.31	0.32	0.72	7/16	0.1	2
FVR516-14N	$13.50	5/16 in. (8 mm) x 1/4 NPT	5/16	0.57	NPT 1/4	1.59	1.85	1.47	0.43	0.72	19/32	0.2	2
FVR516-38N	$16.00	5/16 in. (8 mm) x 3/8 NPT	5/16	0.57	NPT 3/8	1.88	2.16	1.59	0.52	0.72	3/4	0.3	2
FVR38-14N	$15.00	3/8 in. x 1/4 NPT	3/8	0.69	NPT 1/4	1.60	1.85	1.57	0.43	0.79	19/32	0.2	2
FVR38-38N	$16.00	3/8 in. x 3/8 NPT	3/8	0.69	NPT 3/8	1.89	2.16	1.65	0.52	0.79	3/4	0.4	2
FVR38-12N	$23.25	3/8 in. x 1/2 NPT	3/8	0.69	NPT 1/2	2.12	2.41	1.86	0.65	0.79	15/16	0.4	2
FVR12-38N	$23.50	1/2 in. x 3/8 NPT	1/2	0.82	NPT 3/8	1.89	2.16	1.78	0.52	0.90	3/4	0.4	2
FVR12-12N	$23.50	1/2 in. x 1/2 NPT	1/2	0.82	NPT 1/2	2.12	2.41	1.99	0.65	0.90	15/16	0.4	2

BSPT = British Standard Pipe Taper
BSPP = British Standard Pipe Parallel

Pneumatic Push-to-Connect Flow Control (Speed Controller) Valves

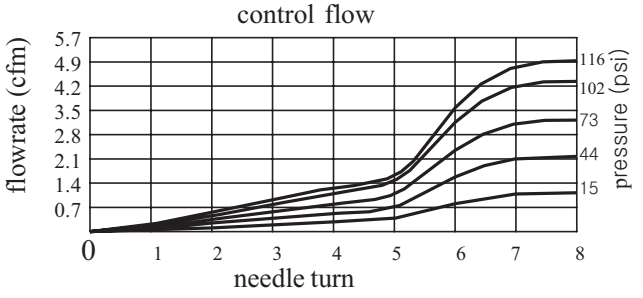
NITRA Elbow Flow Control Valve Meter-In													
R-Thread (BSPT) Metric Sizes - dimensions in millimeters (mm)													
Part No.	*Price*	*Size*	*øD*	*øP*	*T*	*L*		*E*	*A*	*B*	*H (Hex)*	*Package Weight (lbs)*	*Qty. per pack*
						Min.	*Max.*						
FVR4M-M5	$8.50	4 mm (5/32 in.) x M5	4	10.5	M5*0.8p	27.1	29.1	25.4	3.6	14.9	8	0.1	2
FVR4M-18R	$11.00	4 mm (5/32 in.) x R1/8	4	10.5	R 1/8	35.5	40.7	30.5	8.2	14.9	11	0.1	2
FVR6M-M5	$11.00	6 mm x M5	6	12.5	M5*0.8p	27.1	29.1	27.8	3.6	16.4	8	0.1	2
FVR6M-18R	$11.50	6 mm x R1/8	6	12.5	R 1/8	35.5	40.7	31.3	8.2	16.4	11	0.1	2
FVR6M-14R	$12.50	6 mm x R1/4	6	12.5	R 1/4	40.3	46.6	35.3	11.0	16.4	15	0.2	2
FVR8M-14R	$14.00	8 mm (5/16 in.) x R1/4	8	14.5	R 1/4	40.3	46.6	37.4	11.0	18.7	15	0.2	2
FVR8M-38R	$16.50	8 mm (5/16 in.) x R3/8	8	14.5	R 3/8	46.9	54.9	40.4	12.2	18.7	19	0.1	2
FVR10M-14R	$17.00	10 mm x R1/4	10	17.5	R 1/4	40.3	46.6	38.8	11.0	20.1	15	0.1	2
FVR10M-38R	$17.50	10 mm x R3/8	10	17.5	R 3/8	46.9	54.9	42.1	12.2	20.1	19	0.2	2
FVR10M-12R	$21.00	10 mm x R1/2	10	17.5	R 1/2	54.0	60.1	47.3	16.5	20.1	24	0.4	2
FVR12M-38R	$21.25	12 mm x R3/8	12	20.5	R 3/8	46.9	54.9	45.2	12.2	22.8	19	0.4	2
FVR12M-12R	$21.50	12 mm x R1/2	12	20.5	R 1/2	54.0	60.1	50.1	16.5	22.8	24	0.4	2
G-Thread (BSPP) Metric Sizes - dimensions in millimeters (mm)													
FVR4M-18G	$11.00	4 mm (5/32 in.) x G1/8	4	10.5	G 1/8	34.6	39.8	30.3	6.0	15.3	8	0.2	2
FVR6M-18G	$11.50	6 mm x G1/8	6	12.5	G 1/8	34.6	39.8	31.2	6.0	16.4	8	0.2	2
FVR6M-14G	$12.50	6 mm x G1/4	6	12.5	G 1/4	39.8	46.1	35.2	8.0	16.4	12	0.3	2
FVR6M-38G	$15.00	6 mm x G3/8	6	12.5	G 3/8	47.7	54.9	38.7	8.0	16.4	14	0.4	2
FVR8M-14G	$14.00	8 mm (5/16 in.) x G1/4	8	14.5	G 1/4	39.8	46.1	36.9	8.0	18.3	12	0.2	2
FVR8M-38G	$16.50	8 mm (5/16 in.) x G3/8	8	14.5	G 3/8	47.7	54.9	39.9	8.0	18.3	14	0.3	2
FVR8M-12G	$23.00	8 mm (5/16 in.) x G1/2	8	14.5	G 1/2	54.5	61.7	45.8	9.0	18.3	17	0.4	2
FVR10M-38G	$17.50	10 mm x G3/8	10	17.5	G 3/8	47.7	54.9	42.2	8.0	19.7	14	0.4	2
FVR10M-12G	$21.00	10 mm x G1/2	10	17.5	G 1/2	54.5	61.7	48.4	9.0	19.7	17	0.5	2

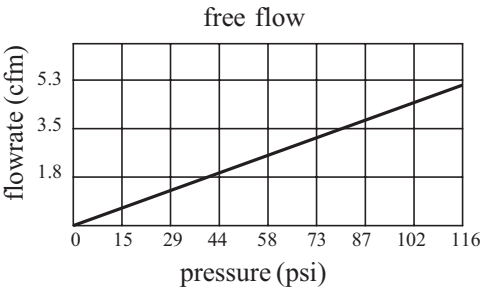
BSPT = British Standard Pipe Taper
BSPP = British Standard Pipe Parallel

Pneumatic Push-to-Connect Flow Control (Speed Controller) Valves

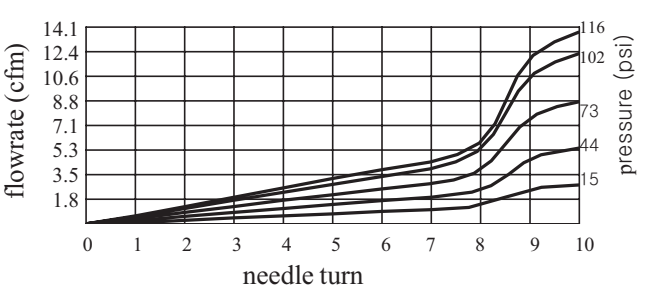
Flowrate Charts

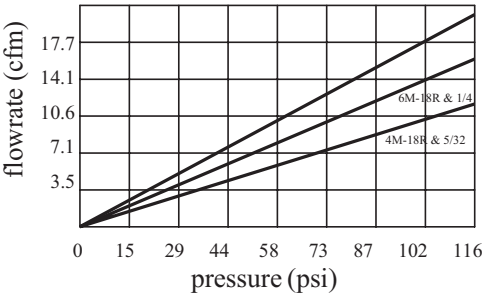
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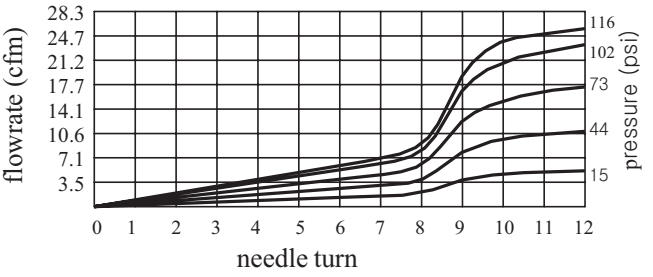


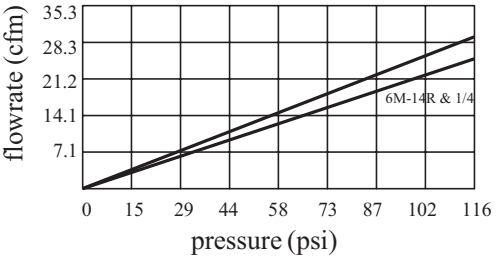
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FVS516-18N



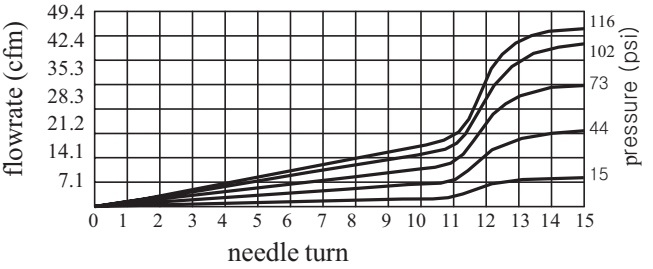


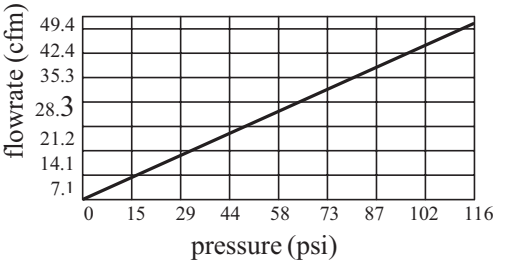
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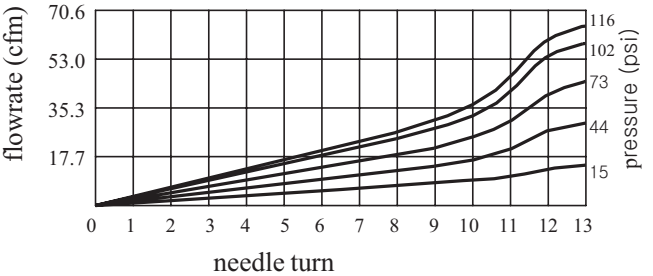


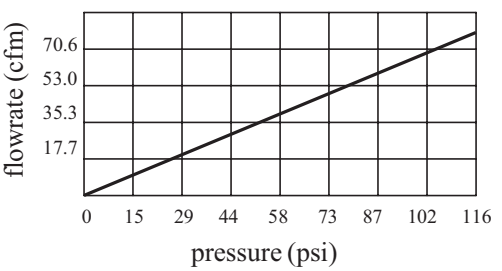
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FVR38-38N
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FVS12M-38R
FVS12-38N



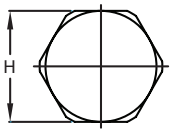


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FVS12M-12R

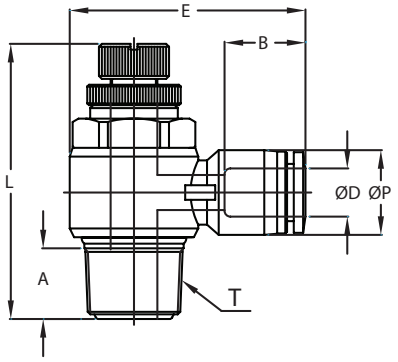




Pneumatic Push-to-Connect Flow Control (Speed Controller) Valves



NITRA pneumatic push-to-connect **meter-out** flow control valve (speed controller) elbow with rotating thermoplastic (PBT) body, nickel-plated brass threads, stainless steel tube griping claws, and pre-applied Teflon thread sealant (#10-32, M5 and G threads have O-ring instead of thread sealant). For use with polyurethane or nylon tubing. Two fittings per package.





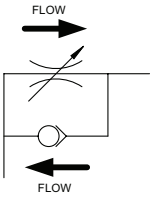
Inch Fitting



R-Thread (BSPT) Flow Control Valve



G-Thread (BSPP) Flow Control Valve



NITRA Elbow Flow Control Valve Meter-Out													
Inch Sizes - dimensions in inches (in.)													
Part No.	*Price*	*Size*	*øD*	*øP*	*T*	*L*		*E*	*A*	*B*	*H (Hex)*	*Package Weight (lbs)*	*Qty. per pack*
						Min.	*Max.*						
FVS18-10N	$10.50	1/8 in. x #10-32	1/8	0.30	UNF 10-32	1.06	1.15	0.85	0.14	0.44	5/16	0.1	2
FVS532-10N	$8.25	5/32 in. (4 mm) x #10-32	5/32	0.41	UNF 10-32	1.06	1.15	1.04	0.14	0.59	5/16	0.1	2
FVS532-18N	$11.00	5/32 in. (4 mm) x 1/8 NPT	5/32	0.41	NPT 1/8	1.37	1.57	1.21	0.32	0.59	7/16	0.1	2
FVS14-10N	$10.50	1/4 in. x #10-32	1/4	0.51	UNF 10-32	1.06	1.15	1.13	0.14	0.66	5/16	0.1	2
FVS14-18N	$11.50	1/4 in. x 1/8 NPT	1/4	0.51	NPT 1/8	1.37	1.57	1.26	0.32	0.66	7/16	0.2	2
FVS14-14N	$12.50	1/4 in. x 1/4 NPT	1/4	0.51	NPT 1/4	1.60	1.85	1.41	0.43	0.66	19/32	0.2	2
FVS516-18N	$13.50	5/16 in. (8 mm) x 1/8 NPT	5/16	0.57	NPT 1/8	1.37	1.56	1.31	0.32	0.72	7/16	0.1	2
FVS516-14N	$13.50	5/16 in. (8 mm) x 1/4 NPT	5/16	0.57	NPT 1/4	1.59	1.85	1.47	0.43	0.72	19/32	0.2	2
FVS516-38N	$16.00	5/16 in. (8 mm) x 3/8 NPT	5/16	0.57	NPT 3/8	1.88	2.16	1.59	0.52	0.72	3/4	0.3	2
FVS38-14N	$15.00	3/8 in. x 1/4 NPT	3/8	0.69	NPT 1/4	1.60	1.85	1.57	0.43	0.79	19/32	0.2	2
FVS38-38N	$16.00	3/8 in. x 3/8 NPT	3/8	0.69	NPT 3/8	1.89	2.16	1.65	0.52	0.79	3/4	0.4	2
FVS38-12N	$23.25	3/8 in. x 1/2 NPT	3/8	0.69	NPT 1/2	2.12	2.41	1.86	0.65	0.79	15/16	0.4	2
FVS12-38N	$23.50	1/2 in. x 3/8 NPT	1/2	0.82	NPT 3/8	1.89	2.16	1.78	0.52	0.90	3/4	0.4	2
FVS12-12N	$23.50	1/2 in. x 1/2 NPT	1/2	0.82	NPT 1/2	2.12	2.41	1.99	0.65	0.90	15/16	0.4	2

BSPT = British Standard Pipe Taper
BSPP = British Standard Pipe Parallel

Pneumatic Push-to-Connect Flow Control (Speed Controller) Valves

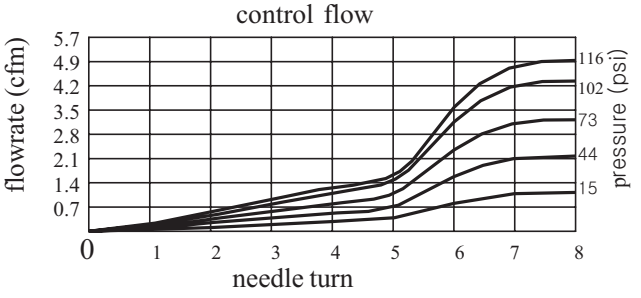
NITRA Elbow Flow Control Valve Meter-Out													
R-Thread (BSPT) Metric Sizes - dimensions in millimeters (mm)													
Part No.	*Price*	*Size*	*øD*	*øP*	*T*	*L*		*E*	*A*	*B*	*H (Hex)*	*Package Weight (lbs)*	*Qty. per pack*
						Min.	*Max.*						
FVS4M-M5	$8.50	4 mm (5/32 in.) x M5	4	10.5	M5*0.8p	27.1	29.1	25.4	3.6	14.9	8	0.2	2
FVS4M-18R	$11.00	4 mm (5/32 in.) x R1/8	4	10.5	R 1/8	35.5	40.7	30.5	8.2	14.9	11	0.2	2
FVS6M-M5	$11.00	6 mm x M5	6	12.5	M5*0.8p	27.1	29.1	27.8	3.6	16.4	8	0.2	2
FVS6M-18R	$11.50	6 mm x R1/8	6	12.5	R 1/8	35.5	40.7	31.3	8.2	16.4	11	0.2	2
FVS6M-14R	$12.50	6 mm x R1/4	6	12.5	R 1/4	40.3	46.6	35.3	11.0	16.4	15	0.2	2
FVS8M-14R	$14.00	8 mm (5/16 in.) x R1/4	8	14.5	R 1/4	40.3	46.6	37.4	11.0	18.7	15	0.3	2
FVS8M-38R	$16.50	8 mm (5/16 in.) x R3/8	8	14.5	R 3/8	46.9	54.9	40.4	12.2	18.7	19	0.3	2
FVS10M-14R	$17.00	10 mm x R1/4	10	17.5	R 1/4	40.3	46.6	38.8	11.0	20.1	15	0.4	2
FVS10M-38R	$17.50	10 mm x R3/8	10	17.5	R 3/8	46.9	54.9	42.1	12.2	20.1	19	0.4	2
FVS10M-12R	$21.00	10 mm x R1/2	10	17.5	R 1/2	54.0	60.1	47.3	16.5	20.1	24	0.4	2
FVS12M-38R	$21.25	12 mm x R3/8	12	20.5	R 3/8	46.9	54.9	45.2	12.2	22.8	19	0.4	2
FVS12M-12R	$21.50	12 mm x R1/2	12	20.5	R 1/2	54.0	60.1	50.1	16.5	22.8	24	0.4	2
G-Thread (BSPP) Metric Sizes - dimensions in millimeters (mm)													
FVS4M-18G	$11.00	4 mm (5/32 in.) x G1/8	4	10.5	G 1/8	34.6	39.8	30.3	6.0	15.3	8	0.2	2
FVS6M-18G	$11.50	6 mm x G1/8	6	12.5	G 1/8	34.6	39.8	31.2	6.0	16.4	8	0.2	2
FVS6M-14G	$12.50	6 mm x G1/4	6	12.5	G 1/4	39.8	46.1	35.2	8.0	16.4	12	0.3	2
FVS6M-38G	$15.00	6 mm x G3/8	6	12.5	G 3/8	47.7	54.9	38.7	8.0	16.4	14	0.4	2
FVS8M-14G	$14.00	8 mm (5/16 in.) x G1/4	8	14.5	G 1/4	39.8	46.1	36.9	8.0	18.3	12	0.2	2
FVS8M-38G	$16.50	8 mm (5/16 in.) x G3/8	8	14.5	G 3/8	47.7	54.9	39.9	8.0	18.3	14	0.3	2
FVS8M-12G	$23.00	8 mm (5/16 in.) x G1/2	8	14.5	G 1/2	54.5	61.7	45.8	9.0	18.3	17	0.4	2
FVS10M-38G	$17.50	10 mm x G3/8	10	17.5	G 3/8	47.7	54.9	42.2	8.0	19.7	14	0.4	2
FVS10M-12G	$21.00	10 mm x G1/2	10	17.5	G 1/2	54.5	61.7	48.4	9.0	19.7	17	0.5	2

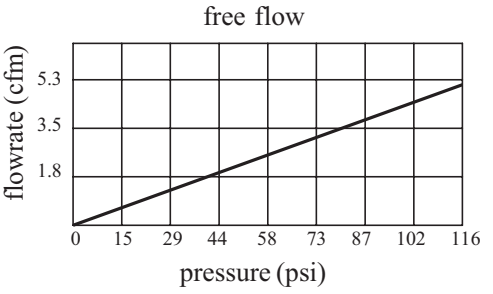
BSPT = British Standard Pipe Taper
BSPP = British Standard Pipe Parallel

Pneumatic Push-to-Connect Flow Control (Speed Controller) Valves

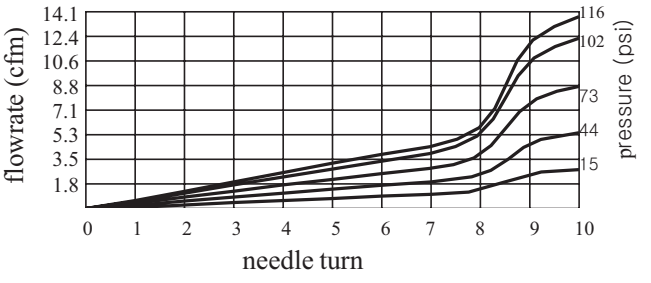
Flowrate Charts

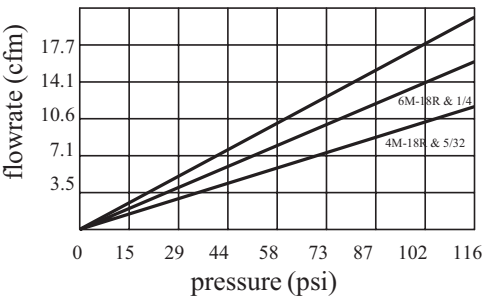
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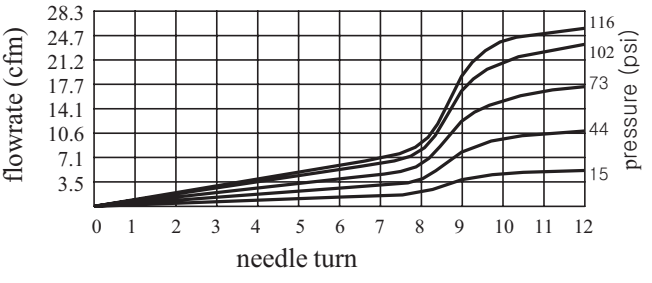


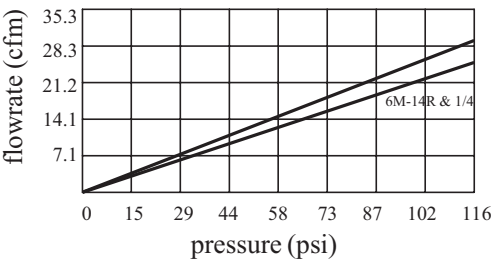
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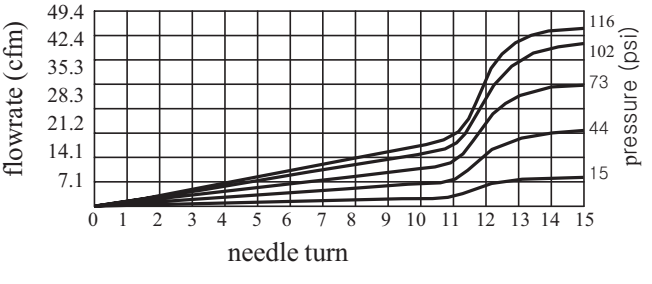


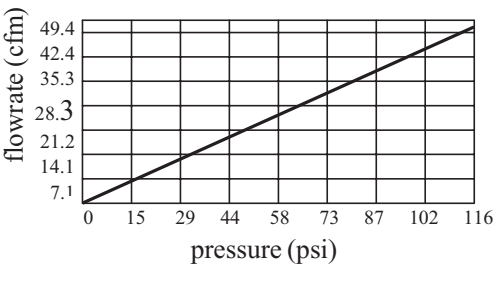
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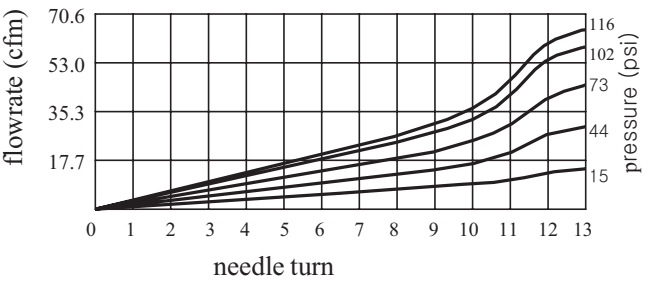


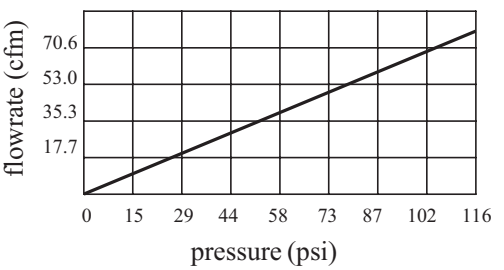
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FVR12M-38R
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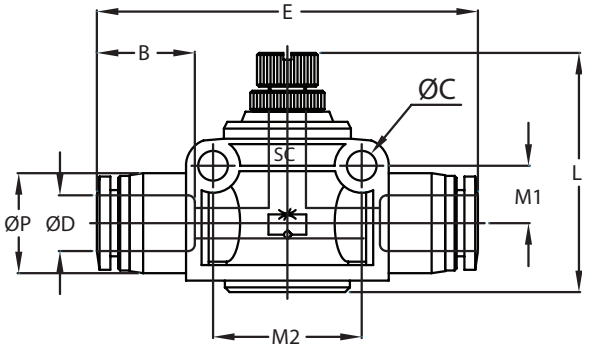


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FVR38-12N
FVR12M-12R
FVR12-12N
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FVS38-12N
FVS12-12N
FVS12M-12R





Pneumatic Push-to-Connect Flow Control (Speed Controller) Valves



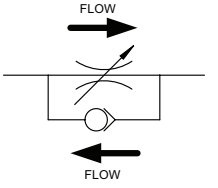
NITRA pneumatic push-to-connect in-line flow control valve (speed controller) with thermoplastic (PBT) body, nickel-plated brass control knob and stainless steel tube griping claws. For use with polyurethane or nylon tubing. Two fittings per package.



Inch Fitting



Metric Fitting



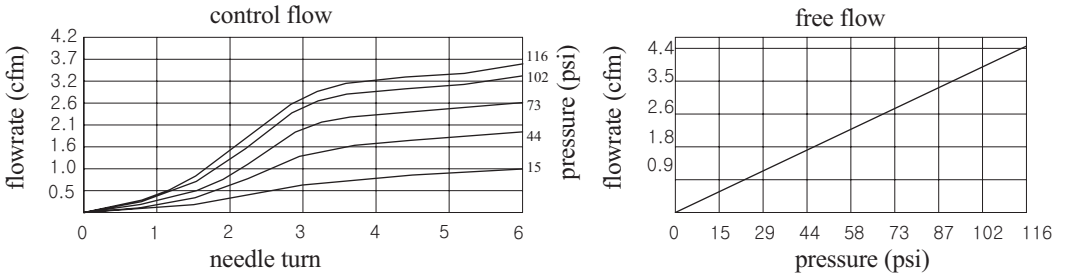
NITRA In-Line													
Inch Sizes - dimensions in inches (in.)													
Part No.	*Price*	*Size*	*øD*	*øP*	*L*		*E*	*øC*	*B*	*M1*	*M2*	*Package Weight (lbs)*	*Qty. per pack*
					Min.	*Max.*							
FVU532*	$12.00	5/32 in. (4 mm) in. x 5/32 in. (4 mm)	5/32	0.41	1.04	1.14	1.76	0.13	0.59	0.22	0.61	0.1	2
FVU14	$14.50	1/4 in. x 1/4	1/4	0.52	1.32	1.53	1.97	0.17	0.66	0.31	0.80	0.1	2
FVU38	$21.50	3/8 in. x 3/8	3/8	0.69	1.60	1.91	2.42	0.17	0.79	0.41	1.11	0.3	2
FVU12	$28.50	1/2 in. x 1/2	1/2	0.81	1.79	2.10	2.78	0.17	0.90	0.48	1.26	0.5	2
Metric Sizes - dimensions in millimeters (mm)													
FVU6M	$14.00	6 mm x 6 mm	6	12.5	33.5	37.9	49.6	4.3	16.4	8.0	20.4	0.1	2
FVU8M	$18.00	8 mm (5/16 in.) x 8 mm (5/16 in.)	8	14.8	35.5	41.5	56.4	4.4	18.7	8.5	22.0	0.1	2
FVU10M	$21.50	10 mm x 10 mm	10	17.5	40.7	48.7	61.4	4.3	20.1	10.3	28.1	0.3	2
FVU12M	$28.00	12 mm x 12 mm	12	20.5	45.0	53.5	70.3	4.4	22.8	12.1	32.0	0.5	2

**** FVU532 has blue release rings***

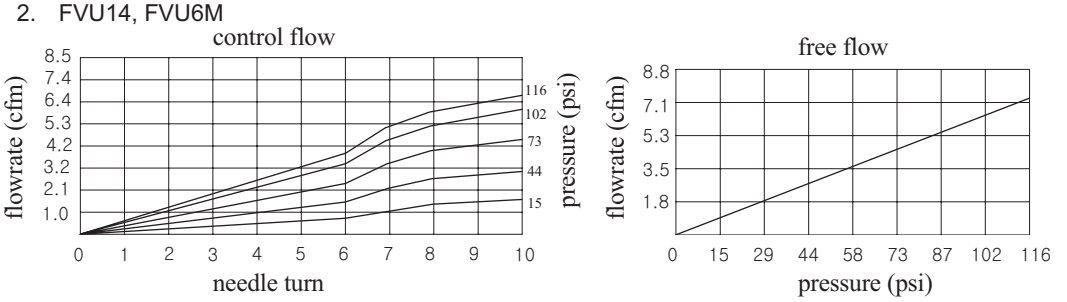
Pneumatic Push-to-Connect Flow Control (Speed Controller) Valves

Flowrate Charts

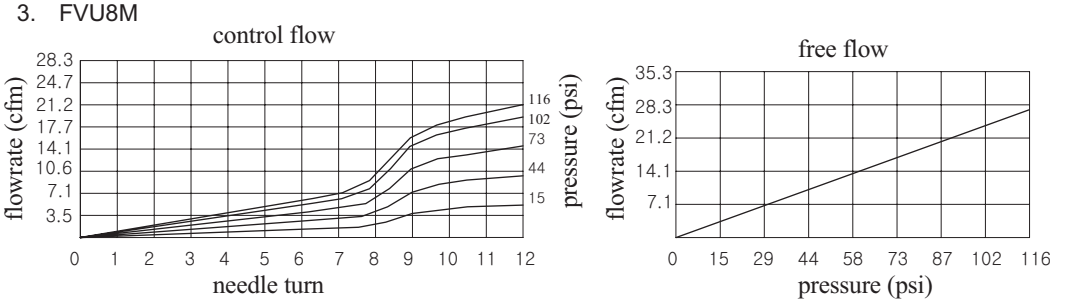
1. FVU532



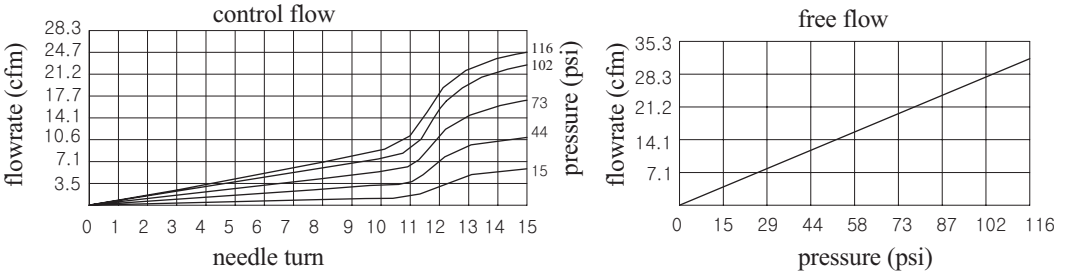
2. FVU14, FVU6M



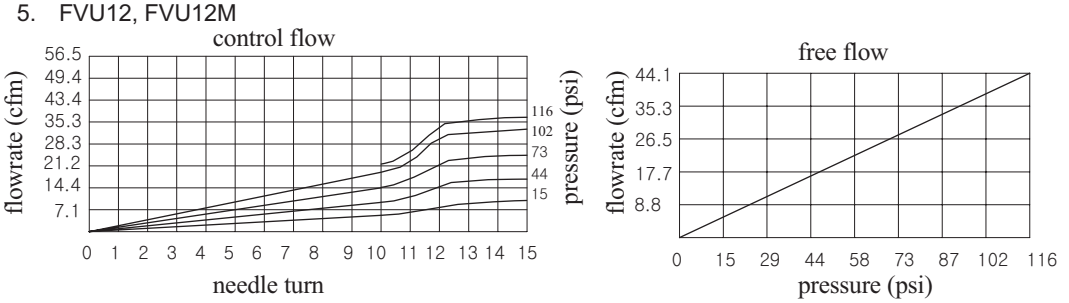
3. FVU8M



4. FVU38, FVU10M



5. FVU12, FVU12M



Stainless Steel Push-to-Connect Fittings

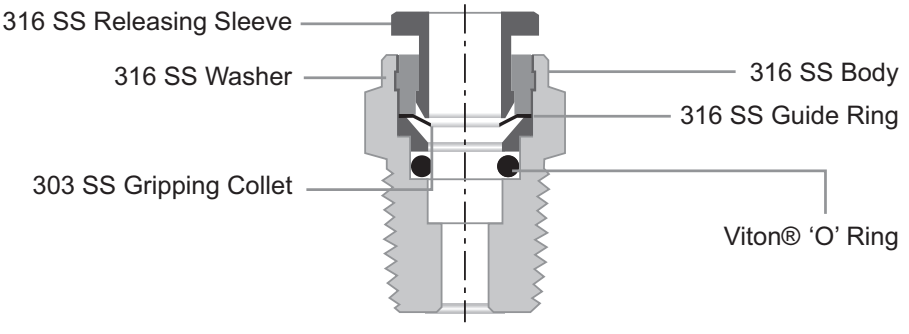
NITRA stainless steel pneumatic push-to-connect fittings are made with 316 stainless steel bodies and 303 stainless steel gripping collets with internal Viton o-ring. Threaded components are 316 stainless steel. The rugged construction of the fittings allows for use in high temperature applications. The bodies of elbow and tee fittings with threaded connections can be rotated after installation to allow for variations in piping direction. NITRA flexible pneumatic tubing is easily connected by simply inserting the tubing end into the fitting. To release the tubing, press the circular releasing sleeve and the tubing can be easily pulled out. **NITRA** stainless steel fittings can be used with polyurethane, nylon and PTFE tubing among others.



Features

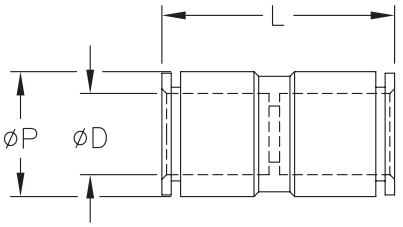
- Large selection of fitting configurations
- Inch and metric sizes available
- NPT and BSPT (R) threads available
- 316 stainless steel bodies and 303 stainless steel gripping collets, 316 stainless steel threads, internal Viton O-ring
- Threaded elbow and tee bodies can be rotated after installation
- For use with air, water, oil, etc... (check chemical compatability for other media)
- Working pressure: -29.5" Hg to 290 psi
- Working temperature: 32 to 390°F (0 to 200°C)





Fitting Cut-away Diagram

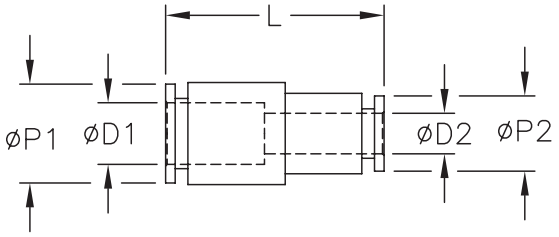
Stainless Steel Push-to-Connect Fittings





NITRA **stainless steel union straight fitting**
- Performs well in harsh duty or washdown applications

NITRA™ Stainless Steel Union Straight							
Inch Sizes - dimensions in inches (in.)							
Part No.	***Price***	***Size***	***øD***	***øP***	***L***	***Item Weight (lbs)***	***Qty. per pack***
US532-SS	$14.00	5/32 in. [4 mm]	5/32 in.	0.39	1.15	0.2	1
US14-SS	$14.00	1/4 in.	1/4	0.50	1.37	0.2	1
US38-SS	$22.00	3/8 in.	3/8	0.63	1.40	0.3	1
US12-SS	$28.50	1/2 in.	1/2	0.78	1.49	0.3	1
Metric Sizes - dimensions in millimeters (mm)							
US6M-SS	$14.00	6 mm	6	12.7	34.5	0.2	1
US8M-SS	$16.00	8 mm	8	14.2	34.8	0.3	1

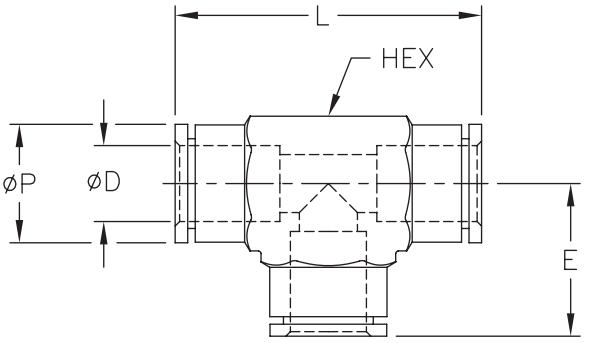




NITRA **stainless steel union reducer**
- Performs well in harsh duty or washdown applications

NITRA™ Stainless Steel Union Reducer									
Inch Sizes - dimensions in inches (in.)									
Part No.	***Price***	***Size***	***øD1***	***øP1***	***L***	***øD2***	***øP2***	***Item Weight (lbs)***	***Qty. per pack***
UR38-14-SS	$24.00	3/8 in. x 1/4 in.	3/8	0.63	1.40	1/4	0.50	0.3	1
UR12-38-SS	$30.50	1/2 in. x 3/8 in.	1/2	0.78	1.50	3/8	0.63	0.3	1
Metric Sizes - dimensions in millimeters (mm)									
UR6M-4M-SS	$14.00	6 mm x 4 mm	6	12.7	34.5	4	9.9	0.2	1
UR8M-6M-SS	$16.50	8 mm x 6 mm	8	14.2	34.5	6	12.7	0.3	1

Stainless Steel Push-to-Connect Fittings

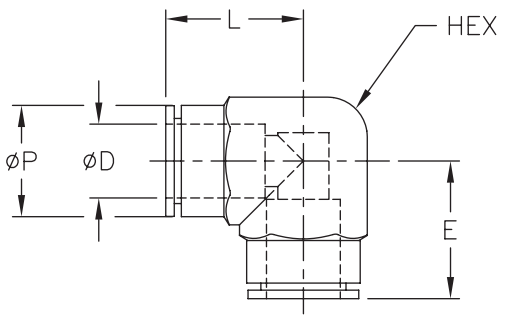


NITRA stainless steel union tee

- Performs well in harsh duty or washdown applications



NITRA™ Stainless Steel Union Tee									
Inch Sizes - dimensions in inches (in.)									
Part No.	***Price***	***Size***	***øD***	***øP***	***E***	***L***	***Hex (inch)***	***Item Weight (lbs)***	***Qty. per pack***
UT532-SS	$24.00	5/32 in. [4 mm]	5/32	0.39	0.65	1.29	7/16	0.3	1
UT14-SS	$28.00	1/4 in.	1/4	0.50	0.81	1.62	1/2	0.4	1
UT38-SS	$38.50	3/8 in.	3/8	0.64	0.97	1.94	11/16	0.9	1
UT12-SS	$54.00	1/2 in.	1/2	0.78	1.01	2.02	13/16	1.1	1
Metric Sizes - dimensions in millimeters (mm, except where noted)									
UT6M-SS	$24.50	6 mm	6	12.7	20.6	41.1	1/2 in.	0.4	1
UT8M-SS	$28.00	8 mm	8	14.2	21.3	42.9	9/16 in.	0.5	1
UT10M-SS	$38.50	10 mm	10	16.5	24.6	49.3	11/16 in.	0.9	1



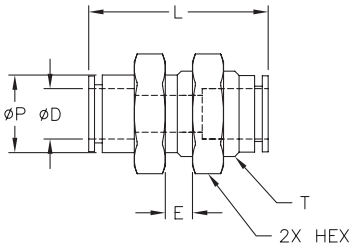
NITRA stainless steel union elbow

- Performs well in harsh duty or washdown applications



NITRA™ Stainless Steel Union Elbow									
Inch Sizes - dimensions in inches (in.)									
Part No.	***Price***	***Size***	***øD***	***øP***	***L***	***E***	***Hex (inch)***	***Item Weight (lbs)***	***Qty. per pack***
UL532-SS	$18.00	5/32 in. [4 mm]	5/32	0.39	0.65	0.65	7/16	0.3	1
UL14-SS	$19.50	1/4 in.	1/4	0.50	0.81	0.81	1/2	0.3	1
UL38-SS	$28.00	3/8 in.	3/8	0.64	0.97	0.97	11/16	0.7	1
UL12-SS	$38.00	1/2 in.	1/2	0.78	1.01	1.01	13/16	0.9	1
Metric Sizes - dimensions in millimeters (mm, except where noted)									
UL6M-SS	$19.50	6 mm	6	12.7	20.6	20.6	1/2 in.	0.3	1
UL8M-SS	$21.50	8 mm	8	14.2	21.3	21.3	9/16 in.	0.4	1
UL10M-SS	$28.00	10 mm	10	16.5	24.6	24.6	11/16 in.	0.7	1

Stainless Steel Push-to-Connect Fittings



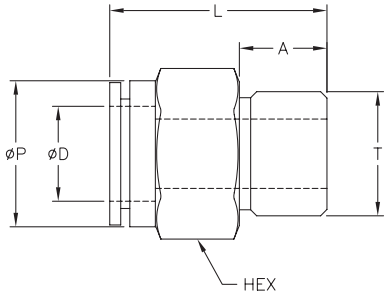


NITRA **stainless steel bulkhead union**

- Performs well in harsh duty or washdown applications

Note: If penetrating a NEMA enclosure, this union will only maintain a NEMA 1 rating.

NITRA™ Stainless Steel Bulkhead Union										
Inch Sizes - dimensions in inches (in.)										
Part No.	***Price***	***Size***	***øD***	***øP***	***L***	***E***	***HEX (inch)***	***T***	***Item Weight (lb)***	***Qty. per pack***
UB532-SS	$23.50	5/32 in. [4 mm]	5/32	0.39	1.29	0.24	9/16	M11x1.75	0.3	1
UB14-SS	$22.00	1/4 in.	1/4	0.50	1.41	0.24	3/4	9/16-20 UN	0.5	1
UB38-SS	$34.00	3/8 in.	3/8	0.62	1.70	0.32	7/8	3/4-20 UN	0.8	1
UB12-SS	$51.00	1/2 in.	1/2	0.78	1.84	0.40	1-1/16	7/8-20 UN	1.1	1
Metric Sizes - dimensions in millimeters (mm, except where noted)										
UB6M-SS	$22.00	6 mm	6	12.7	35.8	6.1	3/4 in.	M13x1	0.5	1
UB8M-SS	$27.00	8 mm	8	14.2	36.8	6.1	13/16 in.	5/8-20 UN	0.7	1



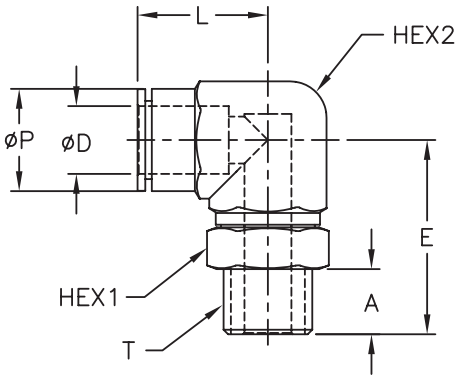


NITRA **stainless steel male straight**

- Performs well in harsh duty or washdown applications

NITRA™ Stainless Steel Male Straight										
Inch Sizes - dimensions in inches (in.)										
Part No.	***Price***	***Size***	***øD***	***øP***	***L***	***A***	***T***	***HEX (inch)***	***Item Weight (lb)***	***Qty. per pack***
MS532-18N-SS	$9.50	5/32 in. [4 mm] x 1/8 NPT	5/32	0.39	0.79	0.34	1/8 NPT	7/16	0.1	1
MS14-18N-SS	$9.50	1/4 in. x 1/8 NPT	1/4	0.50	0.94	0.34	1/8 NPT	1/2	0.2	1
MS14-14N-SS	$10.00	1/4 in. x 1/4 NPT	1/4	0.50	0.93	0.49	1/4 NPT	9/16	0.2	1
MS38-14N-SS	$15.00	3/8 in. x 1/4 NPT	3/8	0.62	1.14	0.49	1/4 NPT	5/8	0.3	1
MS38-38N-SS	$16.50	3/8 in. x 3/8 NPT	3/8	0.62	1.09	0.49	3/8 NPT	11/16	0.4	1
MS12-14N-SS	$18.00	1/2 in. x 1/4 NPT	1/2	0.78	1.28	0.49	1/4 NPT	13/16	0.5	1
MS12-38N-SS	$19.00	1/2 in. x 3/8 NPT	1/2	0.78	1.22	0.49	3/8 NPT	13/16	0.5	1
MS12-12N-SS	$21.00	1/2 in. x 1/2 NPT	1/2	0.78	1.26	0.65	1/2 NPT	7/8	0.6	1
Metric Sizes - dimensions in millimeters (mm, except where noted)										
MS4M-18R-SS	$9.50	4 mm x R1/8	4	9.9	20.1	8.6	1/8 BSPT	7/16 in.	0.2	1
MS4M-14R-SS	$10.50	4 mm x R1/4	4	9.9	23.4	12.4	1/4 BSPT	9/16 in.	0.3	1
MS6M-18R-SS	$9.50	6 mm x R1/8	6	12.4	23.9	8.6	1/8 BSPT	1/2 in.	0.2	1
MS6M-14R-SS	$10.00	6 mm x R1/4	6	12.4	23.9	12.4	1/4 BSPT	9/16 in.	0.3	1
MS8M-18R-SS	$12.00	8 mm x R1/8	8	14.2	26.7	8.6	1/8 BSPT	9/16 in.	0.2	1
MS8M-14R-SS	$12.50	8 mm x R1/4	8	14.2	27.7	12.4	1/4 BSPT	9/16 in.	0.2	1
MS8M-38R-SS	$14.00	8 mm x R3/8	8	14.2	27.7	12.4	3/8 BSPT	11/16 in.	0.4	1
MS10M-14R-SS	$15.00	10 mm x R1/4	10	16.5	30.0	12.4	1/4 BSPT	11/16 in.	0.3	1
MS10M-38R-SS	$16.50	10 mm x R3/8	10	16.5	27.9	12.4	3/8 BSPT	11/16 in.	0.4	1

Stainless Steel Push-to-Connect Fittings



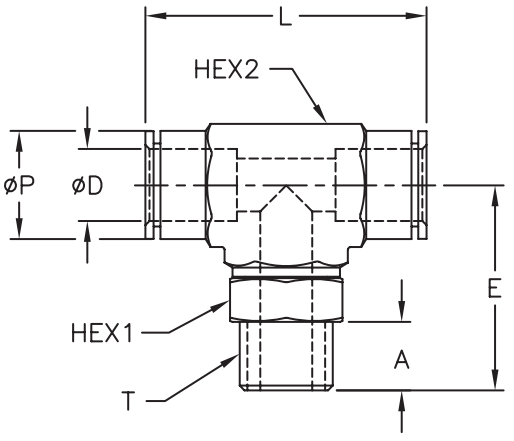


NITRA **stainless steel male elbow**

- Performs well in harsh duty or washdown applications

NITRA™ Stainless Steel Male Elbow												
Inch Sizes - dimensions in inches (in.)												
Part No.	***Price***	***Size***	***øD***	***øP***	***L***	***A***	***E***	***HEX1 (inch)***	***HEX2 (inch)***	***T***	***Item Weight (lbs)***	***Qty. per pack***
ME532-18N-SS	$24.00	5/32 in. [4 mm] x 1/8 NPT	5/32	0.39	0.68	0.34	1.05	7/16	7/16	1/8 NPT	0.3	1
ME14-18N-SS	$24.50	1/4 in. x 1/8 NPT	1/4	0.50	0.81	0.34	1.09	1/2	1/2	1/8 NPT	0.4	1
ME14-14N-SS	$26.50	1/4 in. x 1/4 NPT	1/4	0.50	0.81	0.49	1.23	9/16	1/2	1/4 NPT	0.5	1
ME38-14N-SS	$33.50	3/8 in. x 1/4 NPT	3/8	0.62	0.97	0.49	1.34	11/16	11/16	1/4 NPT	1.0	1
ME38-38N-SS	$40.00	3/8 in. x 3/8 NPT	3/8	0.62	0.97	0.49	1.34	11/16	11/16	3/8 NPT	1.1	1
ME12-14N-SS	$53.00	1/2 in. x 1/4 NPT	1/2	0.78	1.01	0.49	1.47	13/16	13/16	1/4 NPT	1.2	1
ME12-38N-SS	$52.50	1/2 in. x 3/8 NPT	1/2	0.78	1.01	0.49	1.47	13/16	13/16	3/8 NPT	1.2	1
ME12-12N-SS	$54.50	1/2 in. x 1/2 NPT	1/2	0.78	1.01	0.65	1.57	7/8	13/16	1/2 NPT	1.4	1
Metric Sizes - dimensions in millimeters (mm, except where noted)												
ME4M-18R-SS	$24.00	4 mm x R1/8	4	9.9	17.3	8.6	26.7	7/16 in.	7/16 in.	1/8 BSPT	0.3	1
ME4M-14R-SS	$26.00	4 mm x R1/4	4	9.9	17.3	12.4	30.0	9/16 in.	7/16 in.	1/4 BSPT	0.4	1
ME6M-18R-SS	$24.50	6 mm x R1/8	6	12.7	20.6	8.6	27.7	1/2 in.	1/2 in.	1/8 BSPT	0.4	1
ME6M-14R-SS	$26.50	6mm x R1/4	6	12.7	20.6	12.4	30.7	9/16 in.	1/2 in.	1/4 BSPT	0.5	1
ME8M-18R-SS	$29.00	8 mm x R1/8	8	14.2	21.3	8.6	28.7	9/16 in.	9/16 in.	1/8 BSPT	0.5	1
ME8M-14R-SS	$29.50	8 mm x R1/4	8	14.2	21.3	12.4	32.8	9/16 in.	9/16 in.	1/4 BSPT	0.6	1
ME8M-38R-SS	$32.00	8 mm x R3/8	8	14.2	21.3	12.4	32.8	11/16 in.	9/16 in.	3/8 BSPT	0.7	1
ME10M-14R-SS	$33.50	10 mm x R1/4	10	16.5	24.6	12.4	34.0	11/16 in.	11/16 in.	1/4 BSPT	0.8	1
ME10M-38R-SS	$40.00	10 mm x R3/8	10	16.5	24.6	12.4	34.0	11/16 in.	11/16 in.	3/8 BSPT	0.9	1

Stainless Steel Push-to-Connect Fittings



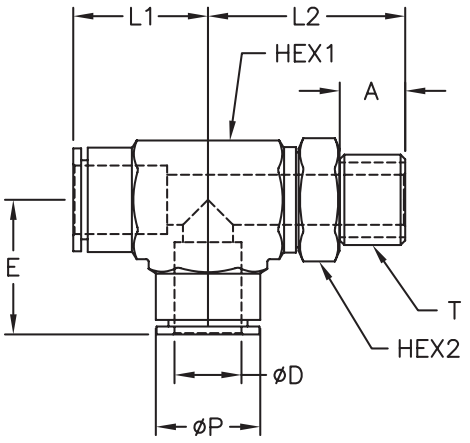
NITRA **stainless steel male branch tee**

- Performs well in harsh duty or washdown applications



NITRA™ Stainless Steel Male Branch Tee												
Inch Sizes - dimensions in inches (in.)												
Part No.	***Price***	***Size***	***øD***	***øP***	***L***	***A***	***E***	***HEX1 (inch)***	***HEX2 (inch)***	***T***	***Item Weight (lbs)***	***Qty. per pack***
MBT532-18N-SS	$34.00	5/32 in. [4 mm] x 1/8 NPT	5/32	0.39	1.35	0.34	1.05	7/16	7/16	1/8 NPT	0.4	1
MBT14-18N-SS	$35.00	1/4 in. x 1/8 NPT	1/4	0.50	1.62	0.34	1.09	1/2	1/2	1/8 NPT	0.7	1
MBT14-14N-SS	$36.50	1/4 in. x 1/4 NPT	1/4	0.50	1.62	0.49	1.23	9/16	1/2	1/4 NPT	0.6	1
MBT38-14N-SS	$48.50	3/8 in. x 1/4 NPT	3/8 in.	0.62	1.94	0.49	1.34	11/16	11/16	1/4 NPT	1.0	1
MBT38-38N-SS	$50.50	3/8 in. x 3/8 NPT	3/8 in.	0.62	1.94	0.49	1.34	11/16	11/16	3/8 NPT	1.1	1
MBT12-14N-SS	$57.50	1/2 in. x 1/4 NPT	1/2 in.	0.78	2.02	0.49	1.47	13/16	13/16	1/4 NPT	1.4	1
MBT12-38N-SS	$59.00	1/2 in. x 3/8 NPT	1/2 in.	0.78	2.02	0.49	1.47	13/16	13/16	3/8 NPT	1.4	1
MBT12-12N-SS	$73.50	1/2 in. x 1/2 NPT	1/2 in.	0.78	2.02	0.65	1.57	13/16	7/8	1/2 NPT	1.6	1
Metric Sizes - dimensions in millimeters (mm, except where noted)												
MBT4M-18R-SS	$34.00	4 mm x R1/8	4	9.9	34.3	8.6	26.7	7/16 in.	7/16 in.	1/8 BSPT	0.4	1
MBT4M-14R-SS	$36.50	4 mm x R1/4	4	9.9	34.3	12.4	29.7	9/16 in.	7/16 in.	1/4 BSPT	0.5	1
MBT6M-18R-SS	$35.00	6 mm x R1/8	6	12.4	41.1	8.6	27.7	1/2 in.	1/2 in.	1/8 BSPT	0.5	1
MBT6M-14R-SS	$36.50	6 mm x R1/4	6	12.4	41.1	12.4	30.7	9/16 in.	1/2 in.	1/4 BSPT	0.6	1
MBT8M-18R-SS	$37.00	8 mm x R1/8	8	14.2	42.9	8.6	28.7	9/16 in.	9/16 in.	1/8 BSPT	0.7	1
MBT8M-14R-SS	$38.00	8 mm x R1/4	8	14.2	42.9	12.4	32.8	9/16 in.	9/16 in.	1/4 BSPT	0.8	1
MBT8M-38R-SS	$39.50	8 mm x R3/8	8	14.2	42.9	12.4	32.8	11/16 in.	9/16 in.	3/8 BSPT	1.0	1

Stainless Steel Push-to-Connect Fittings





NITRA stainless steel male run tee

- Performs well in harsh duty or washdown applications

NITRA™ Stainless Steel Male Run Tee													
Inch Sizes - dimensions in inches (in.)													
Part No.	*Price*	*Size*	*øD*	*øP*	*L1*	*L2*	*A*	*E*	*HEX1 (inch)*	*HEX2 (inch)*	*T*	*item Weight (lbs)*	*Qty. per pack*
MRT532-18N-SS	$34.00	5/32 in [4 mm] x 1/8 NPT	5/32	0.39	0.68	1.01	0.34	0.68	7/16	7/16	1/8 NPT	0.4	1
MRT14-18N-SS	$35.00	1/4 in. x 1/8 NPT	1/4	0.50	0.81	1.09	0.34	0.81	1/2	1/2	1/8 NPT	0.5	1
MRT14-14N-SS	$36.50	1/4 in. x 1/4 NPT	1/4	0.50	0.81	1.23	0.49	0.81	1/2	9/16	1/4 NPT	0.6	1
MRT38-14N-SS	$48.50	3/8 in. x 1/4 NPT	1/4	0.62	0.97	1.34	0.49	0.97	11/16	11/16	1/4 NPT	1.0	1
MRT38-38N-SS	$50.50	3/8 in. x 3/8 NPT	3/8	0.62	0.97	1.34	0.49	0.97	11/16	11/16	3/8 NPT	1.1	1
MRT12-14N-SS	$57.50	1/2 in. x 1/4 NPT	1/2	0.78	1.01	1.47	0.49	1.01	13/16	13/16	1/4 NPT	1.4	1
MRT12-38N-SS	$59.00	1/2 in. x 3/8 NPT	1/2	0.78	1.01	1.47	0.49	1.01	13/16	13/16	3/8 NPT	1.4	1
MRT12-12N-SS	$73.50	1/2 in. x 1/2 NPT	1/2	0.78	1.01	1.57	0.65	1.01	13/16	7/8	1/2 NPT	1.6	1
Metric Sizes - dimensions in millimeters (mm, except where noted)													
MRT4M-18R-SS	$34.00	4 mm x R1/8	4	9.9	17.0	26.7	8.6	17.0	7/16 in.	7/16 in.	1/8 BSPT	0.4	1
MRT4M-14R-SS	$36.50	4 mm x R1/4	4	9.9	17.0	29.7	12.4	17.0	7/16 in.	9/16 in.	1/4 BSPT	0.5	1
MRT6M-18R-SS	$35.00	6 mm x R1/8	6	12.4	20.6	27.7	8.6	20.6	1/2 in.	1/2 in.	1/8 BSPT	0.5	1
MRT6M-14R-SS	$36.50	6 mm x R1/4	6	12.4	20.6	30.7	12.4	20.6	1/2 in.	9/16 in.	1/4 BSPT	0.6	1
MRT8M-18R-SS	$37.00	8 mm x R1/8	8	14.2	21.3	28.7	8.6	21.3	9/16 in.	9/16 in.	1/8 BSPT	0.7	1
MRT8M-14R-SS	$38.00	8 mm x R1/4	8	14.2	21.3	32.8	12.4	21.3	9/16 in.	9/16 in.	1/4 BSPT	0.8	1
MRT8M-38R-SS	$39.50	8 mm x R3/8	8	14.2	21.3	32.8	12.4	21.3	9/16 in.	11/16 in.	3/8 BSPT	1.0	1

Quick-Disconnect Fittings





NITRA pneumatic quick-disconnect hose couplings allow easy changing of tools or hose connections. Couplers and plugs are sold separately. Industrial Interchange, ARO210 and Truflate plugs are available in steel and chrome-plated steel. Couplers are available in Industrial Interchange manual or automatic and universal automatic. Safety couplers bleed off air pressure downstream before disconnecting.

Features

- Plugs and couplers for 1/4 and 3/8 inch hose sizes
- Male and female NPT threaded
- Thread sealant supplied on all male fittings
- Maximum pressure of 250 psi, including safety coupler fittings



HC14-38F-A



HC14-38F-B



HC14-14M-C

NITRA™ Quick-Disconnect 1/4 in. I.D. Coupler Fittings				
Part No.	***Price***	***Description***	***Parts Per Pkg***	***Weight (lbs)***
HC14-14F-A	$5.25	Quick-disconnect coupler, industrial interchange, steel, 1/4 inch inside diameter with 1/4 inch female NPT threaded connection	1	0.2
HC14-38F-A	$5.50	Quick-disconnect coupler, industrial interchange, steel, 1/4 inch inside diameter with 3/8 inch female NPT threaded connection	1	0.2
HC14-14M-A	$5.00	Quick-disconnect coupler, industrial interchange, steel, 1/4 inch inside diameter with 1/4 inch male NPT threaded connection	1	0.2
HC14-38M-A	$5.25	Quick-disconnect coupler, industrial interchange, steel, 1/4 inch inside diameter with 3/8 inch male NPT threaded connection	1	0.2
HC14-14F-B	$9.50	Quick-disconnect automatic coupler, industrial interchange, chrome plated steel, 1/4 inch inside diameter with 1/4 inch female NPT threaded connection	1	0.2
HC14-38F-B	$9.50	Quick-disconnect automatic coupler, industrial interchange, chrome plated steel, 1/4 inch inside diameter with 3/8 inch female NPT threaded connection	1	0.2
HC14-14M-B	$9.50	Quick-disconnect automatic coupler, industrial interchange, chrome plated steel, 1/4 inch inside diameter with 1/4 inch male NPT threaded connection	1	0.2
HC14-38M-B	$9.50	Quick-disconnect automatic coupler, industrial interchange, chrome plated steel, 1/4 inch inside diameter with 3/8 inch male NPT threaded connection	1	0.2
HC14-14F-C	$12.75	Quick-disconnect automatic coupler, universal, chrome plated steel, 1/4 inch inside diameter with 1/4 inch female NPT threaded connection	1	0.2
HC14-38F-C	$12.75	Quick-disconnect automatic coupler, universal, chrome plated steel, 1/4 inch inside diameter with 3/8 inch female NPT threaded connection	1	0.2
HC14-14M-C	$12.75	Quick-disconnect automatic coupler, universal, chrome plated steel, 1/4 inch inside diameter with 1/4 inch male NPT threaded connection	1	0.2
HC14-38M-C	$12.75	Quick-disconnect automatic coupler, universal, chrome plated steel, 1/4 inch inside diameter with 3/8 inch male NPT threaded connection	1	0.2

Quick-Disconnect Fittings



HCP14-14F-J



HCP14-14M-K



HCP14-14M-L



HCP14-14F-M

NITRA™ Quick-Disconnect 1/4 in. I.D. Plug Fittings

Part No.	Price	Description	Parts Per Pkg	Weight (lbs)
HCP14-14F-J	$1.25	Quick-disconnect plug, industrial interchange, steel, 1/4 inch inside diameter with 1/4 inch female NPT threaded connection	1	0.1
HCP14-38F-J	$2.25	Quick-disconnect plug, industrial interchange, steel, 1/4 inch inside diameter with 3/8 inch female NPT threaded connection	1	0.1
HCP14-14M-J	$1.25	Quick-disconnect plug, industrial interchange, steel, 1/4 inch inside diameter with 1/4 inch male NPT threaded connection	1	0.1
HCP14-38M-J	$2.00	Quick-disconnect plug, industrial interchange, steel, 1/4 inch inside diameter with 3/8 inch male NPT threaded connection	1	0.1
HCP14-14F-K	$1.75	Quick-disconnect plug, ARO 210, steel, 1/4 inch inside diameter with 1/4 inch female NPT threaded connection	1	0.1
HCP14-14M-K	$1.50	Quick-disconnect plug, ARO 210, steel, 1/4 inch inside diameter with 1/4 inch male NPT threaded connection	1	0.1
HCP14-14F-L	$1.50	Quick-disconnect plug, Truflate, steel, 1/4 inch inside diameter with 1/4 inch female NPT threaded connection	1	0.1
HCP14-38F-L	$2.25	Quick-disconnect plug, Truflate, steel, 1/4 inch inside diameter with 3/8 inch female NPT threaded connection	1	0.1
HCP14-14M-L	$1.25	Quick-disconnect plug, Truflate, steel, 1/4 inch inside diameter with 1/4 inch male NPT threaded connection	1	0.1
HCP14-38M-L	$2.25	Quick-disconnect plug, Truflate, steel, 1/4 inch inside diameter with 3/8 inch male NPT threaded connection	1	0.1
HCP14-14F-M	$2.25	Quick-disconnect plug, industrial interchange, chrome plated steel, 1/4 inch inside diameter with 1/4 inch female NPT threaded connection	1	0.1
HCP14-38F-M	$3.00	Quick-disconnect plug, industrial interchange, chrome plated steel, 1/4 inch inside diameter with 3/8 inch female NPT threaded connection	1	0.1
HCP14-14M-M	$2.25	Quick-disconnect plug, industrial interchange, chrome plated steel, 1/4 inch inside diameter with 1/4 inch male NPT threaded connection	1	0.1
HCP14-38M-M	$2.25	Quick-disconnect plug, industrial interchange, chrome plated steel, 1/4 inch inside diameter with 3/8 inch male NPT threaded connection	1	0.1



HC38-14F-A



HC38-14M-A



HC38-14M-B

NITRA™ Quick-Disconnect 3/8 in. I.D. Coupler Fittings

Part No.	Price	Description	Parts Per Pkg	Weight (lbs)
HC38-14F-A	$7.00	Quick-disconnect coupler, industrial interchange, steel, 3/8 inch inside diameter with 1/4 inch female NPT threaded connection	1	0.3
HC38-38F-A	$7.00	Quick-disconnect coupler, industrial interchange, steel, 3/8 inch inside diameter with 3/8 inch female NPT threaded connection	1	0.3
HC38-12F-A	$8.00	Quick-disconnect coupler, industrial interchange, steel, 3/8 inch inside diameter with 1/2 inch female NPT threaded connection	1	0.3
HC38-14M-A	$6.50	Quick-disconnect coupler, industrial interchange, steel, 3/8 inch inside diameter with 1/4 inch male NPT threaded connection	1	0.3
HC38-38M-A	$7.50	Quick-disconnect coupler, industrial interchange, steel, 3/8 inch inside diameter with 3/8 inch male NPT threaded connection	1	0.3
HC38-12M-A	$9.50	Quick-disconnect coupler, industrial interchange, steel, 3/8 inch inside diameter with 1/2 inch male NPT threaded connection	1	0.3
HC38-14F-B	$10.75	Quick-disconnect automatic coupler, industrial interchange, chrome plated steel, 3/8 inch inside diameter with 1/4 inch female NPT threaded connection	1	0.2
HC38-38F-B	$10.75	Quick-disconnect automatic coupler, industrial interchange, chrome plated steel, 3/8 inch inside diameter with 3/8 inch female NPT threaded connection	1	0.2
HC38-12F-B	$12.75	Quick-disconnect automatic coupler, industrial interchange, chrome plated steel, 3/8 inch inside diameter with 1/2 inch female NPT threaded connection	1	0.2
HC38-14M-B	$10.75	Quick-disconnect automatic coupler, industrial interchange, chrome plated steel, 3/8 inch inside diameter with 1/4 inch male NPT threaded connection	1	0.2
HC38-38M-B	$10.75	Quick-disconnect automatic coupler, industrial interchange, chrome plated steel, 3/8 inch inside diameter with 3/8 inch male NPT threaded connection	1	0.2
HC38-12M-B	$12.75	Quick-disconnect automatic coupler, industrial interchange, chrome plated steel, 3/8 inch inside diameter with 1/2 inch male NPT threaded connection	1	0.2

Quick-Disconnect Fittings



HCP38-14M-J



HCP38-14F-M

NITRA™ Quick-Disconnect 3/8 in. I.D. Plug Fittings Cont'd				
Part No.	Price	Description	Parts Per Pkg	Weight (lbs)
HCP38-14F-J	$2.00	Quick-disconnect plug, industrial interchange, steel, 3/8 inch inside diameter with 1/4 inch female NPT threaded connection	1	0.1
HCP38-38F-J	$2.50	Quick-disconnect plug, industrial interchange, steel, 3/8 inch inside diameter with 3/8 inch female NPT threaded connection	1	0.1
HCP38-14M-J	$2.75	Quick-disconnect plug, industrial interchange, steel, 3/8 inch inside diameter with 1/4 inch male NPT threaded connection	1	0.1
HCP38-38M-J	$3.00	Quick-disconnect plug, industrial interchange, steel, 3/8 inch inside diameter with 3/8 inch male NPT threaded connection	1	0.1
HCP38-14F-M	$2.50	Quick-disconnect plug, industrial interchange, chrome plated steel, 3/8 inch inside diameter with 1/4 inch female NPT threaded connection	1	0.1
HCP38-38F-M	$3.00	Quick-disconnect plug, industrial interchange, chrome plated steel, 3/8 inch inside diameter with 3/8 inch female NPT threaded connection	1	0.1
HCP38-12F-M	$4.00	Quick-disconnect plug, industrial interchange, chrome plated steel, 3/8 inch inside diameter with 1/2 inch female NPT threaded connection	1	0.2
HCP38-14M-M	$2.50	Quick-disconnect plug, industrial interchange, chrome plated steel, 3/8 inch inside diameter with 1/4 inch male NPT threaded connection	1	0.1
HCP38-38M-M	$2.50	Quick-disconnect plug, industrial interchange, chrome plated steel, 3/8 inch inside diameter with 3/8 inch male NPT threaded connection	1	0.1
HCP38-12M-M	$3.75	Quick-disconnect plug, industrial interchange, chrome plated steel, 3/8 inch inside diameter with 1/2 inch male NPT threaded connection	1	0.1



HC14-14M-D

NITRA™ Quick-Disconnect 1/4 in. I.D. Safety Coupler Fittings				
Part No.	Price	Description	Parts Per Pkg	Weight (lbs)
HC14-14M-D	$15.75	Quick-disconnect automatic safety coupler, universal, chrome plated steel, 1/4 inch inside diameter with 1/4 inch male NPT threaded connection	1	0.3
HC14-14F-D	$15.75	Quick-disconnect automatic safety coupler, universal, chrome plated steel, 1/4 inch inside diameter with 1/4 inch female NPT threaded connection	1	0.3

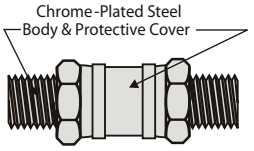
Quick-Disconnect Swivel Fittings

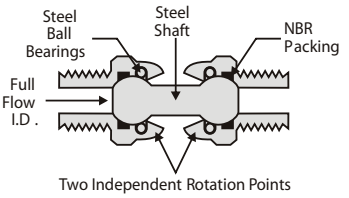




Features

- Two independent-rotation points allow a full 360° circular rotation and 45° angled rotation for better swivel action vs. traditional swivel fittings
- Prevents kinking of and strain on the supply line
- Lightweight, streamlined design
- Chrome-plated steel construction for long service life
- Thread sealant supplied on all male fittings
- Maximum pressure of 145 psi







45° Swivel Design



HS14F-14M

NITRA™ 1/4 in. NPT Swivel Fittings				
Part No.	***Price***	***Description***	***Parts Per Pkg***	***Weight (lbs)***
HS14F-14M	$24.50	Swivel fitting, chrome plated steel, 1/4 inch female NPT and 1/4 inch male NPT threaded connections	1	0.2

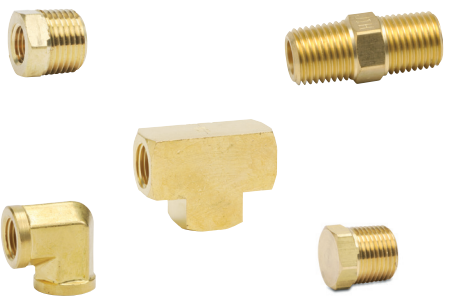


HSP38-14M-S

NITRA™ Quick-Disconnect Plug to NPT Swivel Fittings				
Part No.	***Price***	***Description***	***Parts Per Pkg***	***Weight (lbs)***
HSP14-14M-S	$25.75	Quick-disconnect swivel fitting, chrome plated steel, 1/4 inch industrial interchange plug and 1/4 inch male NPT threaded connection	1	0.2
HSP38-14M-S	$25.75	Quick-disconnect swivel fitting, chrome plated steel, 3/8 inch industrial interchange plug and 1/4 inch male NPT threaded connection	1	0.2
HSP38-38M-S	$28.75	Quick-disconnect swivel fitting, chrome plated steel, 3/8 inch industrial interchange plug and 3/8 inch male NPT threaded connection	1	0.2
HSP14-14M-T	$28.75	Quick-disconnect swivel fitting, chrome plated steel, 1/4 inch ARO 210 plug and 1/4 inch male NPT threaded connection	1	0.1
HSP14-14M-U	$28.75	Quick-disconnect swivel fitting, chrome plated steel, 1/4 inch Truflate plug and 1/4 inch male NPT threaded connection	1	0.1

Brass Adapter Fittings

NITRA brass fittings are machined from quality brass bar stock or forgings. They work well with air, water, oil, oxygen, nitrogen and argon. Available in most popular styles and sizes, the fittings all have NPT threaded connections.

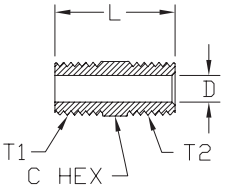


Features

- 10 different styles
- Machined from yellow brass bar stock or forging
- Work with water, oil, air and other gases
- Maximum pressure of 800 psi



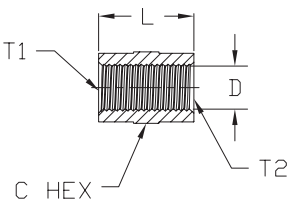
BFMC-14N



NITRA™ Male Brass Connectors *Inch Sizes - dimensions in inches*									
Part No.	***Price***	***Description***	***Parts Per Pkg***	***Weight***	***T1***	***T2***	***C Hex***	***L***	***Flow Dia. D***
BFMC-18N	$4.00	Male connector, 1/8 inch NPT to 1/8 inch NPT	5	0.1	1/8	1/8	7/16	0.97	0.22
BFMC-14N-18N	$5.25	Male connector, 1/4 inch NPT to 1/8 inch NPT	5	0.1	1/4	1/8	9/16	1.19	0.22
BFMC-14N	$5.75	Male connector, 1/4 inch NPT to 1/4 inch NPT	5	0.1	1/4	1/4	9/16	1.38	0.31
BFMC-38N-18N	$7.00	Male connector, 3/8 inch NPT to 1/8 inch NPT	5	0.3	3/8	1/8	11/16	1.22	0.22
BFMC-38N-14N	$7.75	Male connector, 3/8 inch NPT to 1/4 inch NPT	5	0.3	3/8	1/4	11/16	1.41	0.31
BFMC-38N	$9.50	Male connector, 3/8 inch NPT to 3/8 inch NPT	5	0.3	3/8	3/8	11/16	1.41	0.44
BFMC-12N-14N	$5.00	Male connector, 1/2 inch NPT to 1/4 inch NPT	2	0.3	1/2	1/4	7/8	1.62	0.31
BFMC-12N-38N	$5.00	Male connector,1/2 inch NPT to 3/8 inch NPT	2	0.2	1/2	3/8	7/8	1.62	0.44
BFMC-12N	$5.50	Male connector, 1/2 inch NPT to 1/2 inch NPT	2	0.3	1/2	1/2	7/8	1.81	0.56



BFFC-12N-14N

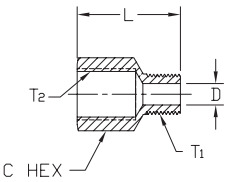


NITRA™ Female Brass Connectors *Inch Sizes - dimensions in inches*									
Part No.	***Price***	***Description***	***Parts Per Pkg***	***Weight***	***T1***	***T2***	***C Hex***	***L***	***Flow Dia. D***
BFFC-18N	$4.50	Female connector, 1/8 inch NPT to 1/8 inch NPT	5	0.1	1/8	1/8	9/16	0.75	0.34
BFFC-14N-18N	$6.75	Female connector, 1/4 inch NPT to 1/8 inch NPT	5	0.1	1/4	1/8	3/4	0.97	0.34
BFFC-14N	$8.75	Female connector, 1/4 inch NPT to 1/4 inch NPT	5	0.2	1/4	1/4	3/4	1.12	0.44
BFFC-38N-14N	$10.75	Female connector, 3/8 inch NPT to 1/4 inch NPT	5	0.2	3/8	1/4	7/8	1.16	0.44
BFFC-38N	$10.75	Female connector, 3/8 inch NPT to 3/8 inch NPT	5	0.3	3/8	3/8	7/8	1.12	0.52
BFFC-12N-14N	$6.00	Female connector, 1/2 inch NPT to 1/4 inch NPT	2	0.4	1/2	1/4	1-1/16	1.28	0.44
BFFC-12N-38N	$5.00	Female connector, 1/2 inch NPT to 3/8 inch NPT	2	0.2	1/2	3/8	15/16	1.32	0.52
BFFC-12N	$7.25	Female connector, 1/2 inch NPT to 1/2 inch NPT	2	0.4	1/2	1/2	1-1/16	1.50	0.70

Brass Adapter Fittings



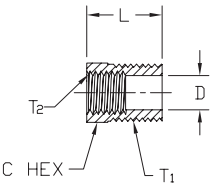
BFMFR-38N-14N



NITRA™ Male to Female Brass Connectors Inch Sizes - dimensions in inches									
Part No.	Price	Description	Parts Per Pkg	Weight	T1	T2	C Hex	L	Flow Dia. D
BFMFR-14N-18N	$7.75	Male to female connector, 1/8 inch NPT male to 1/4 inch NPT female	5	0.1	1/4	1/8	3/4	1.06	0.22
BFMFR-38N-18N	$7.75	Male to female connector, 1/8 inch NPT male to 3/8 inch NPT female	5	0.1	3/8	1/8	7/8	1.1	0.22
BFMFR-38N-14N	$8.50	Male to female connector, 1/4 inch NPT male to 3/8 inch NPT female	5	0.1	3/8	1/4	7/8	1.25	0.314
BFMFR-12N-38N	$6.75	Male to female connector, 3/8 inch NPT male to 1/2 inch NPT female	5	0.4	1/2	3/8	1-1/16	1.47	0.44



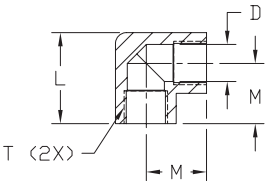
BFHB-12N-14N



NITRA™ Brass Hex Bushing Inch Sizes - dimensions in inches									
Part No.	Price	Description	Parts Per Pkg	Weight	T1	T2	C Hex	L	Flow Dia. D
BFHB-14N-18N	$4.50	Hex bushing, 1/4 inch NPT male to 1/8 inch NPT female	5	0.3	1/4	1/8	9/16	0.75	0.34
BFHB-38N-18N	$6.00	Hex bushing, 3/8 inch NPT male to 1/8 inch NPT female	5	0.3	3/8	1/8	11/16	0.75	0.34
BFHB-38N-14N	$6.25	Hex bushing, 3/8 inch NPT male to 1/4 inch NPT female	5	0.3	3/8	1/4	3/4	0.75	0.44
BFHB-12N-18N	$4.50	Hex bushing, 1/2 inch NPT male to 1/8 inch NPT female	2	0.3	1/2	1/8	7/8	1.0	0.34
BFHB-12N-14N	$4.25	Hex bushing, 1/2 inch NPT male to 1/4 inch NPT female	2	0.3	1/2	1/4	7/8	1.0	0.44
BFHB-12N-38N	$4.25	Hex bushing, 1/2 inch NPT male to 3/8 inch NPT female	2	0.2	1/2	3/8	7/8	1.0	0.57



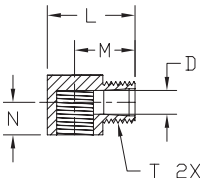
BFFE-14N



NITRA™ Brass Female Elbow Inch Sizes - dimensions in inches								
Part No.	Price	Description	Parts Per Pkg	Weight	T	M	Flow Dia. D	L
BFFE-18N	$3.75	Female elbow, 1/8 inch NPT female	2	0.2	1/8	0.55	0.339	0.83
BFFE-14N	$5.00	Female elbow, 1/4 inch NPT female	2	0.2	1/4	0.78	0.441	1.06
BFFE-38N	$7.00	Female elbow, 3/8 inch NPT female	2	0.4	3/8	0.84	0.571	1.30



BFSE-38N

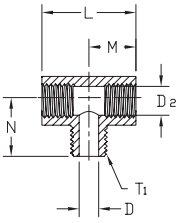


NITRA™ Female to Male Brass Street Elbow Inch Sizes - dimensions in inches									
Part No.	Price	Description	Parts Per Pkg	Weight	T	M	N	Flow Dia. D	L
BFSE-18N	$2.25	Street elbow, 1/8 inch NPT female to 1/8 male	2	0.2	1/8	0.66	0.35	0.22	0.81
BFSE-14N	$3.75	Street elbow, 1/4 inch NPT female to 1/4 male	2	0.2	1/4	0.91	0.47	0.34	1.25
BFSE-38N	$5.75	Street elbow, 3/8 inch NPT female to 3/8 male	2	0.3	3/8	0.97	0.49	0.41	1.42
BFSE-12N	$11.50	Street elbow, 1/2 inch NPT female to 1/2 male	2	0.4	1/2	1.25	1.03	0.56	1.61

Brass Adapter Fittings



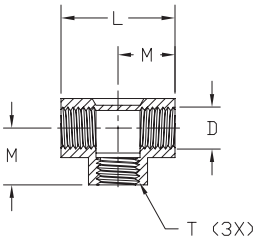
BFMT-14N



NITRA™ Brass Male Tee Fittings										
Inch Sizes - dimensions in inches										
Part No.	Price	Description	Parts Per Pkg	Weight	T1	T2	L	M	N	Flow Dia. D
BFMT-18N	$4.25	Male tee, 1/8 inch NPT male	2	0.3	1/8	1/8	1.06	0.53	0.66	0.22
BFMT-14N	$6.25	Male tee, 1/4 inch NPT male	2	0.3	1/4	1/4	1.52	0.76	0.91	0.31
BFMT-38N	$8.50	Male tee, 3/8 inch NPT male	2	0.4	3/8	3/8	1.68	0.84	0.97	0.44



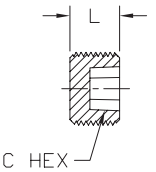
BFFT-14N



NITRA™ Brass Female Tee Fittings								
Inch Sizes - dimensions in inches								
Part No.	Price	Description	Parts Per Pkg	Weight	T	L	M	Flow Dia. D
BFFT-18N	$4.75	Female tee, 1/8 inch NPT female	2	0.3	1/8	1.06	0.53	0.34
BFFT-14N	$7.50	Female tee, 1/4 inch NPT female	2	0.3	1/4	1.52	0.76	0.44
BFFT-38N	$9.25	Female tee, 3/8 inch NPT female	2	0.5	3/8	1.68	0.84	0.57
BFFT-12N	$16.25	Female tee, 1/2 inch NPT female	2	0.9	1/2	2.14	1.07	0.70



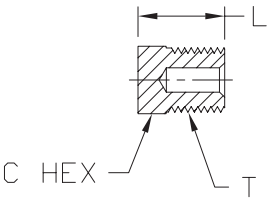
BFRHP-38N



NITRA™ Brass Recessed Hex Plug Fittings						
Inch Sizes - dimensions in inches						
Part No.	Price	Description	Parts Per Pkg	Weight	C Hex	L
BFRHP-14N	$3.00	Recessed hex plug, 1/4 inch NPT male	5	0.1	1/4	0.46
BFRHP-38N	$4.25	Recessed hex plug, 3/8 inch NPT male	5	0.2	5/16	0.46
BFRHP-12N	$7.75	Recessed hex plug, 1/2 inch NPT male	5	0.2	3/8	0.61



BFHHP-38N

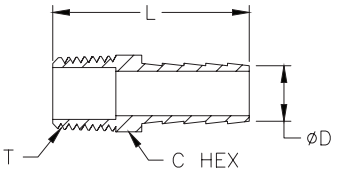


NITRA™ Brass Hex Plug Fittings							
Inch Sizes - dimensions in inches							
Part No.	Price	Description	Parts Per Pkg	Weight	T	C Hex	L
BFHHP-18N	$2.75	Hex head plug, 1/8 inch NPT male	5	0.1	1/8	7/16	0.56
BFHHP-14N	$4.25	Hex head plug, 1/4 inch NPT male	5	0.1	1/4	9/16	0.75
BFHHP-38N	$6.00	Hex head plug, 3/8 inch NPT male	5	0.1	3/8	11/16	0.78
BFHHP-12N	$8.25	Hex head plug, 1/2 inch NPT male	5	0.2	1/2		0.97

Brass Adapter Fittings

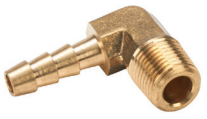


BAHB-316-18N

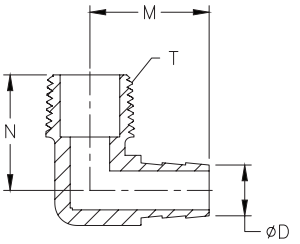


NITRA™ Brass Straight Barb Fitting								
Inch Sizes - dimensions in inches								
Part No.	***Price***	***Description***	***Parts Per Pkg***	***Weight***	***T***	***L***	***ØD***	***C Hex***
BAHB-316-18N	$7.75	Straight barb, 3/16 inch hose to 1/8 inch male NPT	5	0.1	1/8	1.20 [305]	0.20 [5.1]	0.44 [11.1]
BAHB-316-14N	$7.75	Straight barb, 3/16 inch hose to 1/4 inch male NPT	5	0.2	1/4	1.43 [36.2]	0.20 [5.1]	0.56 [14.3]
BAHB-14-18N	$5.25	Straight barb, 1/4 inch hose to 1/8 inch male NPT	5	0.1	1/8	1.49 [37.7]	0.24 [6.1]	0.44 [11.1]
BAHB-14-14N	$6.50	Straight barb, 1/4 inch hose to 1/4 inch male NPT	5	0.2	1/4	1.69 [42.9]	0.24 [6.1]	0.56 [14.3]
BAHB-14-38N	$9.00	Straight barb, 1/4 inch hose to 3/8 inch male NPT	5	0.3	3/8	1.70 [43.3]	0.24 [6.1]	0.69 [17.5]
BAHB-516-18N	$7.50	Straight barb, 5/16 inch hose to 1/8 inch male NPT	5	0.1	1/8	1.40 [35.6]	0.29 [7.4]	0.44 [11.1]
BAHB-516-14N	$6.25	Straight barb, 5/16 inch hose to 1/4 inch male NPT	5	0.2	1/4	1.70 [43.3]	0.29 [7.4]	0.56 [14.3]
BAHB-516-38N	$13.50	Straight barb, 5/16 inch hose to 3/8 inch male NPT	5	0.3	3/8	1.49 [37.8]	0.29 [7.4]	0.69 [17.5]
BAHB-38-14N	$6.25	Straight barb, 3/8 inch hose to 1/4 inch male NPT	5	0.2	1/4	1.70 [43.3]	0.36 [9.2]	0.56 [14.3]
BAHB-38-38N	$8.75	Straight barb, 3/8 inch hose to 3/8 inch male NPT	5	0.3	3/8	1.70 [43.3]	0.36 [9.2]	0.69 [17.4]
BAHB-38-12N	$15.00	Straight barb, 3/8 inch hose to 1/2 inch male NPT	5	0.5	1/2	1.89 [48.0]	0.36 [9.2]	0.88 [22.2]
BAHB-12-14N	$8.75	Straight barb, 1/2 inch hose to 1/4 inch male NPT	5	0.3	1/4	1.70 [43.3]	0.48 [12.3]	0.56 [14.3]
BAHB-12-38N	$9.25	Straight barb, 1/2 inch hose to 3/8 inch male NPT	5	0.3	3/8	1.76 [44.8]	0.48 [12.3]	0.69 [17.5]
BAHB-12-12N	$13.50	Straight barb, 1/2 inch hose to 1/2 inch male NPT	5	0.5	1/2	1.86 [47.2]	0.48 [12.3]	0.88 [22.2]
BAHB-58-38N	$9.25	Straight barb, 5/8 inch hose to 3/8 inch male NPT	3	0.2	3/8	1.84 [46.7]	0.60 [15.3]	0.88 [22.2]
BAHB-58-12N	$9.50	Straight barb, 5/8 inch hose to 1/2 inch male NPT	3	0.4	1/2	1.98 [50.4]	0.60 [15.3]	0.88 [22.2]
BAHB-58-34N	$16.50	Straight barb, 5/8 inch hose to 3/4 inch male NPT	3	0.5	3/4	1.89 [48.1]	0.60 [15.3]	1.06 [27.0]
BAHB-34-12N	$11.00	Straight barb, 3/4 inch hose to 1/2 inch male NPT	3	0.4	1/2	1.99 [50.5]	0.73 [18.5]	0.88 [22.2]
BAHB-34-34N	$13.50	Straight barb, 3/4 inch hose to 3/4 inch male NPT	3	0.3	3/4	2.03 [51.6]	0.73 [18.5]	1.06 [27.0]
BAHB-34-1N	$27.00	Straight barb, 3/4 inch hose to 1 inch male NPT	3	0.8	1	2.25 [57.2]	0.73 [18.5]	1.38 [34.9]
BAHB-1-34N	$5.25	Straight barb, 1 inch hose to 3/4 inch male NPT	1	0.2	3/4	2.17 [55.0]	0.99 [25.1]	1.06 [27.0]
BAHB-1-1N	$9.75	Straight barb, 1 inch hose to 1 inch male NPT	1	0.3	1	2.36 [60.0]	0.99 [25.1]	1.38 [34.9]

Brass Adapter Fittings



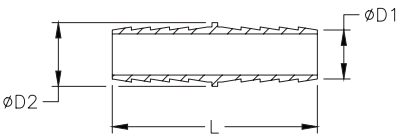
BAHBL-316-18N



NITRA™ Brass Male Elbow Barb Fitting								
Inch Sizes - dimensions in inches								
Part No.	Price	Description	Parts Per Pkg	Weight	T	M	N	ØD
BAHBL-316-18N	$15.00	Male elbow barb, 3/16 inch hose to 1/8 inch male NPT	5	0.1	1/8	0.95 [24.0]	0.71 [18.2]	0.20 [5.1]
BAHBL-316-14N	$19.00	Male elbow barb, 3/16 inch hose to 1/4 inch male NPT	5	0.3	1/4	1.00 [25.4]	0.83 [21.1]	0.20 [5.1]
BAHBL-14-18N	$15.00	Male elbow barb, 1/4 inch hose to 1/8 inch male NPT	5	0.2	1/8	1.25 [31.8]	0.60 [15.3]	0.24 [6.1]
BAHBL-14-14N	$19.00	Male elbow barb, 1/4 inch hose to 1/4 inch male NPT	5	0.3	1/4	1.33 [33.8]	0.84 [21.4]	0.24 [6.1]
BAHBL-14-38N	$31.00	Male elbow barb, 1/4 inch hose to 3/8 inch male NPT	5	0.4	3/8	1.22 [31.0]	0.94 [23.9]	0.24 [6.1]
BAHBL-516-18N	$16.50	Male elbow barb, 5/16 inch hose to 1/8 inch male NPT	5	0.2	1/8	1.01 [25.6]	0.82 [20.8]	0.29 [7.4]
BAHBL-516-14N	$27.00	Male elbow barb, 5/16 inch hose to 1/4 inch male NPT	5	0.3	1/4	1.02 [25.8]	0.87 [22.1]	0.29 [7.4]
BAHBL-516-38N	$34.00	Male elbow barb, 5/16 inch hose to 3/8 inch male NPT	5	0.4	3/8	1.22 [31.1]	0.90 [22.9]	0.29 [7.4]
BAHBL-38-14N	$15.50	Male elbow barb, 3/8 inch hose to 1/4 inch male NPT	5	0.4	1/4	1.32 [33.4]	0.83 [21.1]	0.36 [9.2]
BAHBL-38-38N	$19.50	Male elbow barb, 3/8 inch hose to 3/8 inch male NPT	5	0.6	3/8	1.42 [35.9]	0.95 [24.0]	0.36 [9.2]
BAHBL-38-12N	$34.00	Male elbow barb, 3/8 inch hose to 1/2 inch male NPT	5	0.5	1/2	1.12 [28.6]	1.04 [26.5]	0.36 [9.2]
BAHBL-12-14N	$20.00	Male elbow barb, 1/2 inch hose to 1/4 inch male NPT	5	0.4	1/4	1.29 [32.7]	0.98 [24.9]	0.48 [12.3]
BAHBL-12-38N	$33.00	Male elbow barb, 1/2 inch hose to 3/8 inch male NPT	5	0.5	3/8	1.36 [34.6]	1.01 [25.5]	0.48 [12.3]
BAHBL-12-12N	$28.00	Male elbow barb, 1/2 inch hose to 1/2 inch male NPT	5	0.6	1/2	1.14 [28.8]	1.10 [28.0]	0.48 [12.3]
BAHBL-58-38N	$23.00	Male elbow barb, 5/8 inch hose to 3/8 inch male NPT	3	0.4	3/8	1.45 [37.0]	1.16 [29.5]	0.60 [15.3]
BAHBL-58-12N	$26.00	Male elbow barb, 5/8 inch hose to 1/2 inch male NPT	3	0.5	1/2	1.45 [37.0]	1.14 [29.1]	0.60 [15.3]
BAHBL-34-12N	$33.00	Male elbow barb, 3/4 inch hose to 1/2 inch male NPT	3	0.6	1/2	1.35 [34.4]	1.25 [31.8]	0.73 [18.5]
BAHBL-34-34N	$48.00	Male elbow barb, 3/4 inch hose to 3/4 inch male NPT	3	0.7	3/4	1.54 [39.0]	1.31 [33.2]	0.73 [18.5]
BAHBL-1-34N	$20.00	Male elbow barb, 1 inch hose to 3/4 inch male NPT	1	0.4	3/4	1.70 [43.1]	1.42 [36.2]	0.99 [25.1]
BAHBL-1-1N	$33.00	Male elbow barb, 1 inch hose to 1 inch male NPT	1	0.4	1	1.78 [45.2]	1.63 [41.5]	0.99 [25.1]



BAHM-58



NITRA™ Brass Hose Mender Fitting							
Inch Sizes - dimensions in inches							
Part No.	Price	Description	Parts Per Pkg	Weight	L	ØD1	ØD2
BAHM-316	$4.75	Hose mender, 3/16 inch hose to 1/8 inch male NPT	5	0.1	1.45 [36.7]	0.20 [5.1]	0.23 [5.8]
BAHM-14	$6.00	Hose mender, 3/16 inch hose to 1/4 inch male NPT	5	0.1	2.00 [50.8]	0.24 [6.1]	0.50 [12.7]
BAHM-516	$7.75	Hose mender, 1/4 inch hose to 1/8 inch male NPT	5	0.1	1.67 [42.4]	0.29 [7.4]	0.36 [9.1]
BAHM-38	$8.75	Hose mender, 1/4 inch hose to 1/4 inch male NPT	5	0.2	2.00 [50.8]	0.36 [9.2]	0.50 [12.7]
BAHM-12	$11.00	Hose mender, 1/4 inch hose to 3/8 inch male NPT	5	0.3	2.01 [51.1]	0.48 [12.3]	0.63 [15.9]
BAHM-58	$8.25	Hose mender, 5/16 inch hose to 1/8 inch male NPT	3	0.3	2.29 [58.0]	0.60 [15.3]	0.75 [19.1]
BAHM-34	$10.50	Hose mender, 5/16 inch hose to 1/4 inch male NPT	3	0.3	2.00 [50.8]	0.73 [18.5]	0.88 [22.2]
BAHM-1	$12.00	Hose mender, 5/16 inch hose to 3/8 inch male NPT	3	0.6	2.49 [63.2]	0.99 [25.1]	1.19 [30.2]

Hose Clamps



HC-58

NITRA Adjustable Hose Clamps				
Part No.	**Description**	**Pcs/Pkg**	**Weight (lbs)**	**Price**
HC-316	NITRA hose clamp, 2-ear, 0.318-0.433in diameter, plated steel. For use with HBV series 3/16in hose.	10	0.1	$3.75
HC-14	NITRA hose clamp, 2-ear, 0.425-0.512in diameter, plated steel. For use with HBV series 1/4in hose.	10	0.1	$4.00
HC-516	NITRA hose clamp, 2-ear, 0.492-0.591in diameter, plated steel. For use with HBV series 5/16in hose.	10	0.1	$4.25
HC-38	NITRA hose clamp, 2-ear, 0.551-0.669in diameter, plated steel. For use with HBV series 3/8in hose.	10	0.1	$4.25
HC-12	NITRA hose clamp, 2-ear, 0.638-0.787in diameter, plated steel. For use with HBV series 1/2in hose.	10	0.1	$4.50
HC-58	NITRA hose clamp, 2-ear, 0.748-0.906in diameter, plated steel. For use with HBV series 5/8in hose.	10	0.2	$5.25
HC-34	NITRA hose clamp, 2-ear, 0.945-1.102in diameter, plated steel. For use with HBV series 3/4in hose.	10	0.3	$6.50
HC-1	NITRA hose clamp, 2-ear, 1.154-1.339in diameter, plated steel. For use with HBV series 1in hose.	10	0.3	$11.00



HCSS-58

NITRA Interlocking Hose Clamps				
Part No.	**Description**	**Pcs/Pkg**	**Weight (lbs)**	**Price**
HCSS-316	NITRA hose clamp, interlocking ear, 0.346-0.413in diameter, 304 stainless steel. For use with HBV series 3/16in hose.	10	0.1	$4.50
HCSS-14	NITRA hose clamp, interlocking ear, 0.398-0.465in diameter, 304 stainless steel. For use with HBV series 1/4in hose.	10	0.1	$4.50
HCSS-516	NITRA hose clamp, interlocking ear, 0.472-0.571in diameter, 304 stainless steel. For use with HBV series 5/16in hose.	10	0.1	$4.50
HCSS-38	NITRA hose clamp, interlocking ear, 0.520-0.618in diameter, 304 stainless steel. For use with HBV series 3/8in hose.	10	0.1	$4.50
HCSS-12	NITRA hose clamp, interlocking ear, 0.654-0.780in diameter, 304 stainless steel. For use with HBV series 1/2in hose.	10	0.1	$5.25
HCSS-58	NITRA hose clamp, interlocking ear, 0.823-0.949in diameter, 304 stainless steel. For use with HBV series 5/8in hose.	10	0.1	$5.50
HCSS-34	NITRA hose clamp, interlocking ear, 0.941-1.067in diameter, 304 stainless steel. For use with HBV series 3/4in hose.	10	0.1	$5.75
HCSS-1	NITRA hose clamp, interlocking ear, 1.236-1.362in diameter, 304 stainless steel. For use with HBV series 1in hose.	10	0.1	$6.00

Hose Crimping Tools

NITRA hose crimping tools are designed to work with 2-ear and interlocking ear hose clamps. They come in three styles.

- Straight jaw single action, straight jaw compound action and side jaw compound action styles available
- Made in USA



HCT-ES



HCT-SC



HCT-AC

Nitra Hose Crimping Tools				
Part Number	*Description*	*Pcs/Pkg*	*Package Weight (lbs)*	*Price*
HCT-ES	NITRA hose clamp crimping tool, single action, straight jaw	1	0.8	$29.00
HCT-SC	NITRA hose clamp crimping tool, compound action, straight jaw	1	0.9	$51.00
HCT-AC	NITRA hose clamp crimping tool, compound action, side jaw	1	0.9	$52.00



1/8” NPT Aluminum Manifolds



MRA-4BA



MRA-4BA-180

NITRA aluminum manifolds

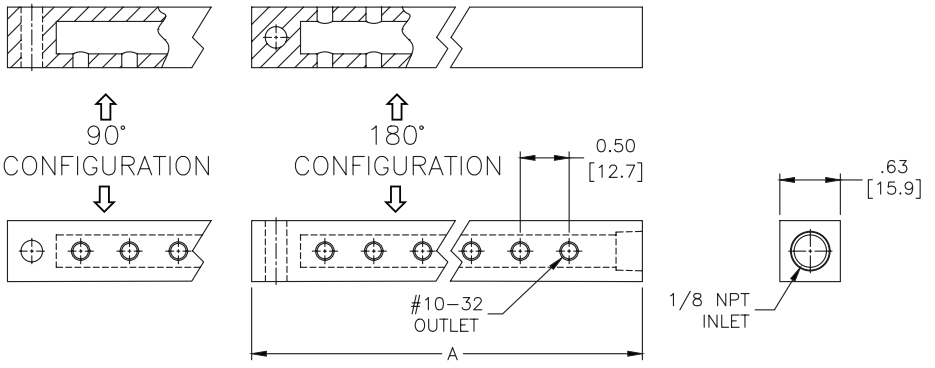
- Black anodized finish
- Made in the USA



NITRA® 1/8” NPT Aluminum Manifolds					
Part No.	***Description***	***A***	***Parts Per Pkg***	***Weight (lbs)***	***Price***
MRA-4BA	NITRA pneumatic manifold, aluminum, rectangular, (1) 1/8 inch female NPT inlet port(s), 4 stations, (1) #10-32 female threaded outlet port(s) per station, standard hole spacing.	3.0 [76.2]	1	0.1	$8.00
MRA-4BA-180	NITRA pneumatic manifold, aluminum, rectangular, (1) 1/8 inch female NPT inlet port(s), 4 stations, (2) #10-32 female threaded outlet port(s) per station, 180-degree orientation, standard hole spacing.	3.0 [76.2]	1	0.1	$8.50
MRA-6BA	NITRA pneumatic manifold, aluminum, rectangular, (1) 1/8 inch female NPT inlet port(s), 6 stations, (1) #10-32 female threaded outlet port(s) per station, standard hole spacing.	4.0 [101.6]	1	0.1	$9.50
MRA-6BA-180	NITRA pneumatic manifold, aluminum, rectangular, (1) 1/8 inch female NPT inlet port(s), 6 stations, (2) #10-32 female threaded outlet port(s) per station, 180-degree orientation, standard hole spacing.	4.0 [101.6]	1	0.1	$12.50
MRA-8BA	NITRA pneumatic manifold, aluminum, rectangular, (1) 1/8 inch female NPT inlet port(s), 8 stations, (1) #10-32 female threaded outlet port(s) per station, standard hole spacing.	5.0 [127.0]	1	0.2	$10.00
MRA-8BA-180	NITRA pneumatic manifold, aluminum, rectangular, (1) 1/8 inch female NPT inlet port(s), 8 stations, (2) #10-32 female threaded outlet port(s) per station, 180-degree orientation, standard hole spacing.	5.0 [127.0]	1	0.2	$11.00
MRA-10BA	NITRA pneumatic manifold, aluminum, rectangular, (1) 1/8 inch female NPT inlet port(s), 10 stations, (1) #10-32 female threaded outlet port(s) per station, standard hole spacing.	6.0 [152.4]	1	0.2	$11.50
MRA-10BA-180	NITRA pneumatic manifold, aluminum, rectangular, (1) 1/8 inch female NPT inlet port(s), 10 stations, (2) #10-32 female threaded outlet port(s) per station, 180-degree orientation, standard hole spacing.	6.0 [152.4]	1	0.2	$14.50

Dimensions

inches [mm]



See our website www.AutomationDirect.com for complete Engineering drawings.

1/4” NPT Aluminum Manifolds



MRA-2CB



MRA-2CB-90



MRA-2CB-W

NITRA aluminum manifolds

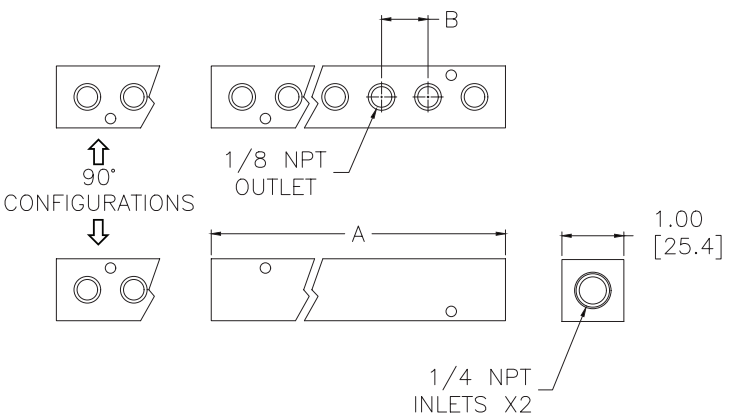
- Black anodized finish
- Made in the USA



NITRA® 1/4” NPT Aluminum Manifolds						
Part No.	**Description**	**A**	**B**	**Parts Per Pkg**	**Weight (lbs)**	**Price**
MRA-2CB	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/4 inch female NPT inlet port(s), 2 stations, (1) 1/8 inch female NPT outlet port(s) per station, standard hole spacing.	1.75 [44.5]	0.75 [19.1]	1	0.2	$9.50
MRA-2CB-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/4 inch female NPT inlet port(s), 2 stations, (2) 1/8 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	1.75 [44.5]	0.75 [19.1]	1	0.1	$15.00
MRA-2CB-W	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/4 inch female NPT inlet port(s), 2 stations, (1) 1/8 inch female NPT outlet port(s) per station, wide hole spacing.	3.25 [82.6]	1.50 [38.1]	1	0.3	$11.50
MRA-3CB	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/4 inch female NPT inlet port(s), 3 stations, (1) 1/8 inch female NPT outlet port(s) per station, standard hole spacing.	2.50 [63.5]	0.75 [19.1]	1	0.2	$10.50
MRA-3CB-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/4 inch female NPT inlet port(s), 3 stations, (2) 1/8 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	2.50 [63.5]	0.75 [19.1]	1	0.2	$16.00
MRA-3CB-W	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/4 inch female NPT inlet port(s), 3 stations, (1) 1/8 inch female NPT outlet port(s) per station, wide hole spacing.	4.75 [120.7]	1.50 [38.1]	1	0.4	$12.50
MRA-4CB	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/4 inch female NPT inlet port(s), 4 stations, (1) 1/8 inch female NPT outlet port(s) per station, standard hole spacing.	3.25 [82.6]	0.75 [19.1]	1	0.3	$12.00
MRA-4CB-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/4 inch female NPT inlet port(s), 4 stations, (2) 1/8 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	3.25 [82.6]	0.75 [19.1]	1	0.3	$18.00
MRA-4CB-W	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/4 inch female NPT inlet port(s), 4 stations, (1) 1/8 inch female NPT outlet port(s) per station, wide hole spacing.	6.25 [158.8]	1.50 [38.1]	1	0.5	$13.50
MRA-5CB	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/4 inch female NPT inlet port(s), 5 stations, (1) 1/8 inch female NPT outlet port(s) per station, standard hole spacing.	4.00 [101.6]	0.75 [19.1]	1	0.3	$12.50
MRA-5CB-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/4 inch female NPT inlet port(s), 5 stations, (2) 1/8 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	4.00 [101.6]	0.75 [19.1]	1	0.3	$19.00
MRA-5CB-W	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/4 inch female NPT inlet port(s), 5 stations, (1) 1/8 inch female NPT outlet port(s) per station, wide hole spacing.	7.75 [196.9]	1.50 [38.1]	1	0.6	$14.00
MRA-6CB	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/4 inch female NPT inlet port(s), 6 stations, (1) 1/8 inch female NPT outlet port(s) per station, standard hole spacing.	4.75 [120.7]	0.75 [19.1]	1	0.4	$13.50
MRA-6CB-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/4 inch female NPT inlet port(s), 6 stations, (2) 1/8 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	4.75 [120.7]	0.75 [19.1]	1	0.4	$20.00
MRA-6CB-W	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/4 inch female NPT inlet port(s), 6 stations, (1) 1/8 inch female NPT outlet port(s) per station, wide hole spacing.	9.25 [235.0]	1.50 [38.1]	1	0.7	$14.50
MRA-7CB	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/4 inch female NPT inlet port(s), 7 stations, (1) 1/8 inch female NPT outlet port(s) per station, standard hole spacing.	5.50 [139.0]	0.75 [19.1]	1	0.5	$14.00
MRA-8CB	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/4 inch female NPT inlet port(s), 8 stations, (1) 1/8 inch female NPT outlet port(s) per station, standard hole spacing.	6.25 [158.8]	0.75 [19.1]	1	0.5	$14.50
MRA-8CB-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/4 inch female NPT inlet port(s), 8 stations, (2) 1/8 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	6.25 [158.8]	0.75 [19.1]	1	0.5	$23.00
MRA-8CB-W	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/4 inch female NPT inlet port(s), 8 stations, (1) 1/8 inch female NPT outlet port(s) per station, wide hole spacing.	12.25 [311.2]	1.50 [38.1]	1	1.0	$16.50
MRA-10CB	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/4 inch female NPT inlet port(s), 10 stations, (1) 1/8 inch female NPT outlet port(s) per station, standard hole spacing.	7.75 [196.9]	0.75 [19.1]	1	0.6	$16.00

Dimensions

inches [mm]



See our website www.AutomationDirect.com for complete Engineering drawings.

3/8” NPT Aluminum Manifolds



MRA-2DC



MRA-2DC-90



MRA-2DC-W

NITRA aluminum manifolds

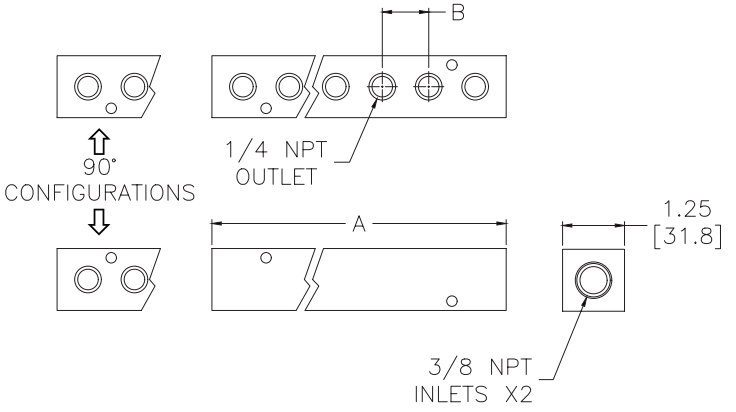
- Black anodized finish
- Made in the USA



NITRA® 3/8” NPT Aluminum Manifolds						
Part No.	*Description*	*A*	*B*	*Parts Per Pkg*	*Weight (lbs)*	*Price*
MRA-2DC	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/8 inch female NPT inlet port(s), 2 stations, (1) 1/4 inch female NPT outlet port(s) per station, standard hole spacing.	2.13 [54.1]	0.88 [22.4]	1	0.2	$9.50
MRA-2DC-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/8 inch female NPT inlet port(s), 2 stations, (2) 1/4 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	2.13 [54.1]	0.88 [22.4]	1	0.3	$15.00
MRA-2DC-W	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/8 inch female NPT inlet port(s), 2 stations, (1) 1/4 inch female NPT outlet port(s) per station, wide hole spacing.	3.25 [82.1]	1.50 [38.1]	1	0.4	$11.50
MRA-3DC	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/8 inch female NPT inlet port(s), 3 stations, (1) 1/4 inch female NPT outlet port(s) per station, standard hole spacing.	3.00 [76.2]	0.88 [22.4]	1	0.3	$10.50
MRA-3DC-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/8 inch female NPT inlet port(s), 3 stations, (2) 1/4 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	3.00 [76.2]	0.88 [22.4]	1	0.3	$16.00
MRA-3DC-W	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/8 inch female NPT inlet port(s), 3 stations, (1) 1/4 inch female NPT outlet port(s) per station, wide hole spacing.	4.75 [120.7]	1.50 [38.1]	1	0.6	$12.50
MRA-4DC	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/8 inch female NPT inlet port(s), 4 stations, (1) 1/4 inch female NPT outlet port(s) per station, standard hole spacing.	3.88 [98.6]	0.88 [22.4]	1	0.5	$12.00
MRA-4DC-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/8 inch female NPT inlet port(s), 4 stations, (2) 1/4 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	3.88 [98.6]	0.88 [22.4]	1	0.4	$17.50
MRA-4DC-W	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/8 inch female NPT inlet port(s), 4 stations, (1) 1/4 inch female NPT outlet port(s) per station, wide hole spacing.	6.25 [158.8]	1.50 [38.1]	1	0.8	$13.50
MRA-5DC	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/8 inch female NPT inlet port(s), 5 stations, (1) 1/4 inch female NPT outlet port(s) per station, standard hole spacing.	4.75 [120.7]	0.88 [22.4]	1	0.6	$12.50
MRA-5DC-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/8 inch female NPT inlet port(s), 5 stations, (2) 1/4 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	4.75 [120.7]	0.88 [22.4]	1	0.6	$18.50
MRA-5DC-W	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/8 inch female NPT inlet port(s), 5 stations, (1) 1/4 inch female NPT outlet port(s) per station, wide hole spacing.	7.75 [196.9]	1.50 [38.1]	1	1.0	$14.50
MRA-6DC	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/8 inch female NPT inlet port(s), 6 stations, (1) 1/4 inch female NPT outlet port(s) per station, standard hole spacing.	5.63 [143.0]	0.88 [22.4]	1	0.7	$13.50
MRA-6DC-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/8 inch female NPT inlet port(s), 6 stations, (2) 1/4 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	5.63 [143.0]	0.88 [22.4]	1	0.7	$20.00
MRA-6DC-W	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/8 inch female NPT inlet port(s), 6 stations, (1) 1/4 inch female NPT outlet port(s) per station, wide hole spacing.	9.25 [235.0]	1.50 [38.1]	1	1.1	$15.50
MRA-7DC	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/8 inch female NPT inlet port(s), 7 stations, (1) 1/4 inch female NPT outlet port(s) per station, standard hole spacing.	6.50 [165.1]	0.88 [22.4]	1	0.8	$14.00
MRA-8DC	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/8 inch female NPT inlet port(s), 8 stations, (1) 1/4 inch female NPT outlet port(s) per station, standard hole spacing.	7.38 [187.5]	0.88 [22.4]	1	0.9	$14.50
MRA-8DC-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/8 inch female NPT inlet port(s), 8 stations, (2) 1/4 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	7.38 [187.5]	0.88 [22.4]	1	0.9	$23.00
MRA-8DC-W	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/8 inch female NPT inlet port(s), 8 stations, (1) 1/4 inch female NPT outlet port(s) per station, wide hole spacing.	12.25 [311.2]	1.50 [38.1]	1	1.5	$17.50
MRA-10DC	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/8 inch female NPT inlet port(s), 10 stations, (1) 1/4 inch female NPT outlet port(s) per station, standard hole spacing.	9.13 [231.9]	0.88 [22.4]	1	1.1	$15.50
MRA-10DC-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/8 inch female NPT inlet port(s), 10 stations, (2) 1/4 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	9.13 [231.9]	0.88 [22.4]	1	0.9	$25.00
MRA-10DC-W	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/8 inch female NPT inlet port(s), 10 stations, (1) 1/4 inch female NPT outlet port(s) per station, wide hole spacing.	15.25 [387.4]	1.50 [38.1]	1	1.9	$19.50

Dimensions

inches [mm]



See our website www.AutomationDirect.com for complete Engineering drawings.

1/2” NPT Aluminum Manifolds



MRA-2ED



MRA-2ED-90



MRA-2ED-W

NITRA aluminum manifolds

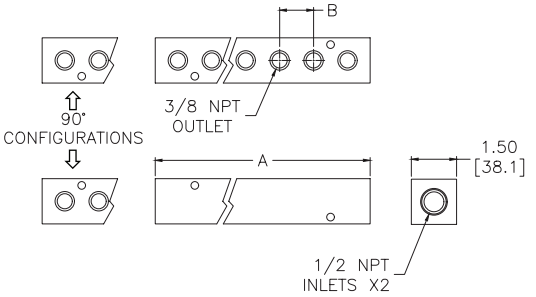
- Black anodized finish
- Made in the USA



NITRA® 1/2” NPT Aluminum Manifolds						
Part No.	**Description**	**A**	**B**	**Parts Per Pkg**	**Weight (lbs)**	**Price**
MRA-2ED	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/2 inch female NPT inlet port(s), 2 stations, (1) 3/8 inch female NPT outlet port(s) per station, standard hole spacing.	2.75 [69.9]	1.00 [25.4]	1	0.4	$16.50
MRA-2ED-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/2 inch female NPT inlet port(s), 2 stations, (2) 3/8 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	2.75 [69.9]	1.00 [25.4]	1	0.4	$22.00
MRA-2ED-W	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/2 inch female NPT inlet port(s), 2 stations, (1) 3/8 inch female NPT outlet port(s) per station, wide hole spacing.	3.25 [82.6]	1.50 [38.1]	1	0.6	$17.00
MRA-3ED	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/2 inch female NPT inlet port(s), 3 stations, (1) 3/8 inch female NPT outlet port(s) per station, standard hole spacing.	3.75 [95.3]	1.00 [25.4]	1	0.6	$17.50
MRA-3ED-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/2 inch female NPT inlet port(s), 3 stations, (2) 3/8 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	3.75 [95.3]	1.00 [25.4]	1	0.6	$23.00
MRA-3ED-W	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/2 inch female NPT inlet port(s), 3 stations, (1) 3/8 inch female NPT outlet port(s) per station, wide hole spacing.	4.75 [120.7]	1.50 [38.1]	1	0.8	$18.00
MRA-4ED	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/2 inch female NPT inlet port(s), 4 stations, (1) 3/8 inch female NPT outlet port(s) per station, standard hole spacing.	4.75 [120.7]	1.00 [25.4]	1	0.8	$18.50
MRA-4ED-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/2 inch female NPT inlet port(s), 4 stations, (2) 3/8 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	4.75 [120.7]	1.00 [25.4]	1	0.7	$23.00
MRA-4ED-W	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/2 inch female NPT inlet port(s), 4 stations, (1) 3/8 inch female NPT outlet port(s) per station, wide hole spacing.	6.25 [158.8]	1.50 [38.1]	1	1.1	$19.50
MRA-5ED	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/2 inch female NPT inlet port(s), 5 stations, (1) 3/8 inch female NPT outlet port(s) per station, standard hole spacing.	5.75 [146.1]	1.00 [25.4]	1	1.0	$19.50
MRA-5ED-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/2 inch female NPT inlet port(s), 5 stations, (2) 3/8 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	5.75 [146.1]	1.00 [25.4]	1	0.9	$24.00
MRA-5ED-W	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/2 inch female NPT inlet port(s), 5 stations, (1) 3/8 inch female NPT outlet port(s) per station, wide hole spacing.	7.75 [196.9]	1.50 [38.1]	1	1.3	$21.00
MRA-6ED	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/2 inch female NPT inlet port(s), 6 stations, (1) 3/8 inch female NPT outlet port(s) per station, standard hole spacing.	6.75 [171.5]	1.00 [25.4]	1	1.1	$21.00
MRA-6ED-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/2 inch female NPT inlet port(s), 6 stations, (2) 3/8 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	6.75 [171.5]	1.00 [25.4]	1	1.1	$24.00
MRA-6ED-W	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/2 inch female NPT inlet port(s), 6 stations, (1) 3/8 inch female NPT outlet port(s) per station, wide hole spacing.	9.25 [235.0]	1.50 [38.1]	1	1.6	$22.00
MRA-7ED	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/2 inch female NPT inlet port(s), 7 stations, (1) 3/8 inch female NPT outlet port(s) per station, standard hole spacing.	7.75 [196.9]	1.00 [25.4]	1	1.3	$24.00
MRA-8ED	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/2 inch female NPT inlet port(s), 8 stations, (1) 3/8 inch female NPT outlet port(s) per station, standard hole spacing.	8.75 [222.3]	1.00 [25.4]	1	1.5	$27.00
MRA-8ED-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/2 inch female NPT inlet port(s), 8 stations, (2) 3/8 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	8.75 [222.3]	1.00 [25.4]	1	1.4	$36.00
MRA-8ED-W	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/2 inch female NPT inlet port(s), 8 stations, (1) 3/8 inch female NPT outlet port(s) per station, wide hole spacing.	12.25 [311.2]	1.50 [38.1]	1	2.1	$30.00
MRA-9ED	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/2 inch female NPT inlet port(s), 9 stations, (1) 3/8 inch female NPT outlet port(s) per station, standard hole spacing.	9.75 [247.7]	1.00 [25.4]	1	1.6	$28.00
MRA-10ED	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/2 inch female NPT inlet port(s), 10 stations, (1) 3/8 inch female NPT outlet port(s) per station, standard hole spacing.	10.75 [273.1]	1.00 [25.4]	1	1.8	$29.00
MRA-10ED-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 1/2 inch female NPT inlet port(s), 10 stations, (2) 3/8 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	10.75 [273.1]	1.00 [25.4]	1	1.7	$38.00

Dimensions

inches [mm]



See our website www.AutomationDirect.com for complete Engineering drawings.

3/4” NPT Aluminum Manifolds



MRA-2FD

NITRA aluminum manifolds

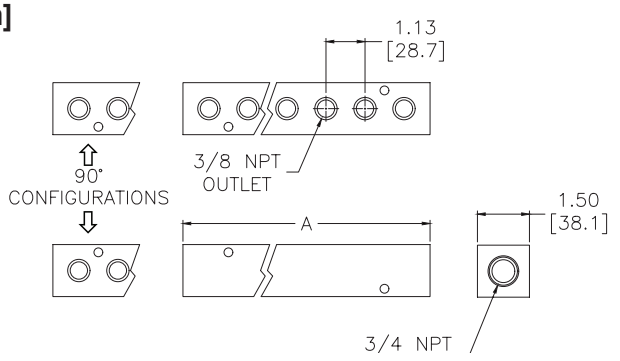
- Black anodized finish
- Made in the USA

2 YEAR WARRANTY

NITRA® 3/4” NPT Aluminum Manifolds					
Part No.	***Description***	***A***	***Parts Per Pkg***	***Weight (lbs)***	***Price***
MRA-2FD	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/4 inch female NPT inlet port(s), 2 stations, (1) 3/8 inch female NPT outlet port(s) per station, standard hole spacing.	4.63 [117.6]	1	0.8	$22.00
MRA-3FD	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/4 inch female NPT inlet port(s), 3 stations, (1) 3/8 inch female NPT outlet port(s) per station, standard hole spacing.	5.75 [146.1]	1	0.9	$23.00
MRA-4FD	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/4 inch female NPT inlet port(s), 4 stations, (1) 3/8 inch female NPT outlet port(s) per station, standard hole spacing.	6.88 [174.8]	1	1.1	$25.00
MRA-5FD	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/4 inch female NPT inlet port(s), 5 stations, (1) 3/8 inch female NPT outlet port(s) per station, standard hole spacing.	8.00 [203.2]	1	1.3	$26.00
MRA-6FD	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/4 inch female NPT inlet port(s), 6 stations, (1) 3/8 inch female NPT outlet port(s) per station, standard hole spacing.	9.13 [231.9]	1	1.5	$27.00
MRA-8FD	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/4 inch female NPT inlet port(s), 8 stations, (1) 3/8 inch female NPT outlet port(s) per station, standard hole spacing.	11.38 [289.1]	1	1.9	$36.00
MRA-10FD	NITRA pneumatic manifold, aluminum, rectangular, (2) 3/4 inch female NPT inlet port(s), 10 stations, (1) 3/8 inch female NPT outlet port(s) per station, standard hole spacing.	13.63 [346.2]	1	2.2	$38.00

Dimensions

inches [mm]



See our website www.AutomationDirect.com for complete Engineering drawings.

1” NPT Aluminum Manifolds



MRA-2GE



MRA-2GE-90

NITRA aluminum manifolds

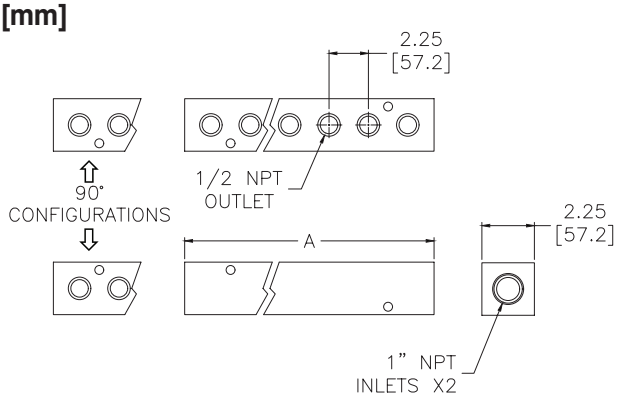
- Plain finish
- Made in the USA

2 YEAR WARRANTY

NITRA® 1” NPT Aluminum Manifolds					
Part No.	*Description*	*A*	*Parts Per Pkg*	*Weight (lbs)*	*Price*
MRA-2GE	NITRA pneumatic manifold, aluminum, rectangular, (2) 1 inch female NPT inlet port(s), 2 stations, (1) 1/2 inch female NPT outlet port(s) per station, standard hole spacing.	5.25 [133.4]	1	2.0	$36.00
MRA-2GE-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 1 inch female NPT inlet port(s), 2 stations, (2) 1/2 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	5.25 [133.4]	1	1.9	$41.00
MRA-3GE	NITRA pneumatic manifold, aluminum, rectangular, (2) 1 inch female NPT inlet port(s), 3 stations, (1) 1/2 inch female NPT outlet port(s) per station, standard hole spacing.	7.50 [190.5]	1	2.8	$42.00
MRA-3GE-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 1 inch female NPT inlet port(s), 3 stations, (2) 1/2 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	7.50 [190.5]	1	2.7	$47.00
MRA-4GE	NITRA pneumatic manifold, aluminum, rectangular, (2) 1 inch female NPT inlet port(s), 4 stations, (1) 1/2 inch female NPT outlet port(s) per station, standard hole spacing.	9.75 [247.7]	1	3.7	$48.00
MRA-4GE-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 1 inch female NPT inlet port(s), 4 stations, (2) 1/2 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	9.75 [247.7]	1	3.6	$53.00
MRA-5GE	NITRA pneumatic manifold, aluminum, rectangular, (2) 1 inch female NPT inlet port(s), 5 stations, (1) 1/2 inch female NPT outlet port(s) per station, standard hole spacing.	12.00 [304.8]	1	4.6	$51.00
MRA-5GE-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 1 inch female NPT inlet port(s), 5 stations, (2) 1/2 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	12.00 [304.8]	1	4.4	$56.00
MRA-6GE	NITRA pneumatic manifold, aluminum, rectangular, (2) 1 inch female NPT inlet port(s), 6 stations, (1) 1/2 inch female NPT outlet port(s) per station, standard hole spacing.	14.25 [362.0]	1	5.4	$54.00
MRA-6GE-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 1 inch female NPT inlet port(s), 6 stations, (2) 1/2 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	14.25 [362.0]	1	5.3	$62.00
MRA-7GE	NITRA pneumatic manifold, aluminum, rectangular, (2) 1 inch female NPT inlet port(s), 7 stations, (1) 1/2 inch female NPT outlet port(s) per station, standard hole spacing.	16.50 [419.1]	1	6.3	$63.00
MRA-7GE-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 1 inch female NPT inlet port(s), 7 stations, (2) 1/2 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	16.50 [419.0]	1	6.1	$69.00
MRA-8GE	NITRA pneumatic manifold, aluminum, rectangular, (2) 1 inch female NPT inlet port(s), 8 stations, (1) 1/2 inch female NPT outlet port(s) per station, standard hole spacing.	18.75 [476.3]	1	7.2	$72.00
MRA-8GE-90	NITRA pneumatic manifold, aluminum, rectangular, (2) 1 inch female NPT inlet port(s), 8 stations, (2) 1/2 inch female NPT outlet port(s) per station, 90-degree orientation, standard hole spacing.	18.75 [476.3]	1	6.9	$80.00

Dimensions

inches [mm]



See our website www.AutomationDirect.com for complete Engineering drawings.

1/4” NPT Stainless Steel Manifolds



MRS-2CB

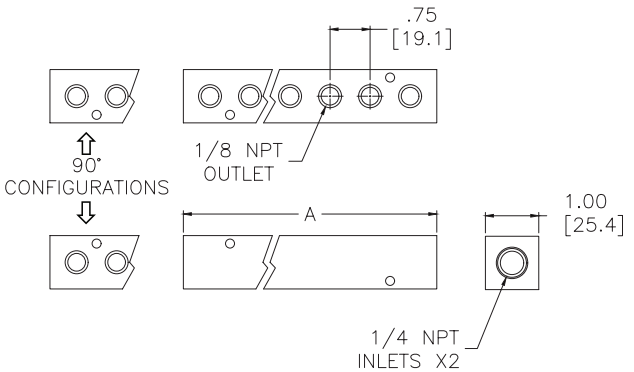
NITRA stainless steel manifolds

- 303 Stainless Steel
- Made in the USA

NITRA® 1/4” NPT Stainless Steel Manifolds					
Part No.	***Description***	***A***	***Parts Per Pkg***	***Weight (lbs)***	***Price***
MRS-2CB	NITRA pneumatic manifold, stainless steel, rectangular, (2) 1/4 inch female NPT inlet port(s), 2 stations, (1) 1/8 inch female NPT outlet port(s) per station, standard hole spacing.	1.75 [44.5]	1	0.4	$49.00
MRS-3CB	NITRA pneumatic manifold, stainless steel, rectangular, (2) 1/4 inch female NPT inlet port(s), 3 stations, (1) 1/8 inch female NPT outlet port(s) per station, standard hole spacing.	2.50 [63.0]	1	0.5	$54.00
MRS-4CB	NITRA pneumatic manifold, stainless steel, rectangular, (2) 1/4 inch female NPT inlet port(s), 4 stations, (1) 1/8 inch female NPT outlet port(s) per station, standard hole spacing.	3.25 [82.6]	1	0.7	$58.00
MRS-5CB	NITRA pneumatic manifold, stainless steel, rectangular, (2) 1/4 inch female NPT inlet port(s), 5 stations, (1) 1/8 inch female NPT outlet port(s) per station, standard hole spacing.	4.00 [101.6]	1	0.9	$61.00
MRS-6CB	NITRA pneumatic manifold, stainless steel, rectangular, (2) 1/4 inch female NPT inlet port(s), 6 stations, (1) 1/8 inch female NPT outlet port(s) per station, standard hole spacing.	4.75 [120.7]	1	1.1	$64.00
MRS-7CB	NITRA pneumatic manifold, stainless steel, rectangular, (2) 1/4 inch female NPT inlet port(s), 7 stations, (1) 1/8 inch female NPT outlet port(s) per station, standard hole spacing.	5.50 [139.7]	1	1.2	$68.00
MRS-8CB	NITRA pneumatic manifold, stainless steel, rectangular, (2) 1/4 inch female NPT inlet port(s), 8 stations, (1) 1/8 inch female NPT outlet port(s) per station, standard hole spacing.	6.25 [158.8]	1	1.4	$73.00
MRS-9CB	NITRA pneumatic manifold, stainless steel, rectangular, (2) 1/4 inch female NPT inlet port(s), 9 stations, (1) 1/8 inch female NPT outlet port(s) per station, standard hole spacing.	7.00 [177.8]	1	1.6	$78.00
MRS-10CB	NITRA pneumatic manifold, stainless steel, rectangular, (2) 1/4 inch female NPT inlet port(s), 10 stations, (1) 1/8 inch female NPT outlet port(s) per station, standard hole spacing.	7.75 [196.9]	1	1.7	$84.00

Dimensions

inches [mm]



See our website www.AutomationDirect.com for complete Engineering drawings.

3/8” NPT Stainless Steel Manifolds



MRS-2DC

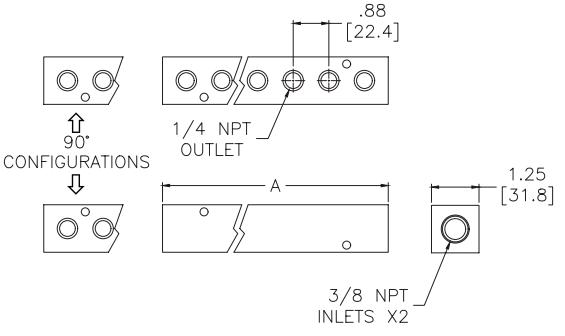
NITRA stainless steel manifolds

- 303 Stainless Steel
- Made in the USA

NITRA® 3/8” NPT Stainless Steel Manifolds					
Part No.	***Description***	***A***	***Parts Per Pkg***	***Weight (lbs)***	***Price***
MRS-2DC	NITRA pneumatic manifold, stainless steel, rectangular, (2) 3/8 inch female NPT inlet port(s), 2 stations, (1) 1/4 inch female NPT outlet port(s) per station, standard hole spacing.	2.13 [54.1]	1	0.7	$58.00
MRS-3DC	NITRA pneumatic manifold, stainless steel, rectangular, (2) 3/8 inch female NPT inlet port(s), 3 stations, (1) 1/4 inch female NPT outlet port(s) per station, standard hole spacing.	3.00 [76.2]	1	1.0	$64.00
MRS-4DC	NITRA pneumatic manifold, stainless steel, rectangular, (2) 3/8 inch female NPT inlet port(s), 4 stations, (1) 1/4 inch female NPT outlet port(s) per station, standard hole spacing.	3.88 [98.6]	1	1.3	$69.00
MRS-5DC	NITRA pneumatic manifold, stainless steel, rectangular, (2) 3/8 inch female NPT inlet port(s), 5 stations, (1) 1/4 inch female NPT outlet port(s) per station, standard hole spacing.	4.75 [120.7]	1	1.6	$77.00
MRS-6DC	NITRA pneumatic manifold, stainless steel, rectangular, (2) 3/8 inch female NPT inlet port(s), 6 stations, (1) 1/4 inch female NPT outlet port(s) per station, standard hole spacing.	5.63 [143.0]	1	1.9	$84.00
MRS-7DC	NITRA pneumatic manifold, stainless steel, rectangular, (2) 3/8 inch female NPT inlet port(s), 7 stations, (1) 1/4 inch female NPT outlet port(s) per station, standard hole spacing.	6.50 [165.1]	1	2.2	$91.00
MRS-8DC	NITRA pneumatic manifold, stainless steel, rectangular, (2) 3/8 inch female NPT inlet port(s), 8 stations, (1) 1/4 inch female NPT outlet port(s) per station, standard hole spacing.	7.38 [187.5]	1	2.5	$99.00
MRS-9DC	NITRA pneumatic manifold, stainless steel, rectangular, (2) 3/8 inch female NPT inlet port(s), 9 stations, (1) 1/4 inch female NPT outlet port(s) per station, standard hole spacing.	8.25 [209.6]	1	2.8	$105.00
MRS-10DC	NITRA pneumatic manifold, stainless steel, rectangular, (2) 3/8 inch female NPT inlet port(s), 10 stations, (1) 1/4 inch female NPT outlet port(s) per station, standard hole spacing.	9.13 [231.9]	1	3.1	$114.00

Dimensions

inches [mm]



See our website www.AutomationDirect.com for complete Engineering drawings.

Pneumatic Manifolds

NITRA aluminum manifolds are available in two variations. Round manifolds have one 3/8″ NPT input and either two or three 1/4″ NPT outputs. Rectangular manifolds have 1/2″ NPT inputs on either end and either three or five 1/4″ NPT outputs.

- Maximum input pressure of 500 psi



MYA-3

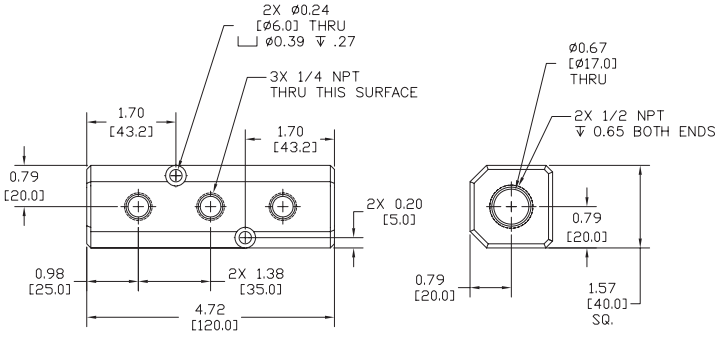


MLA-5

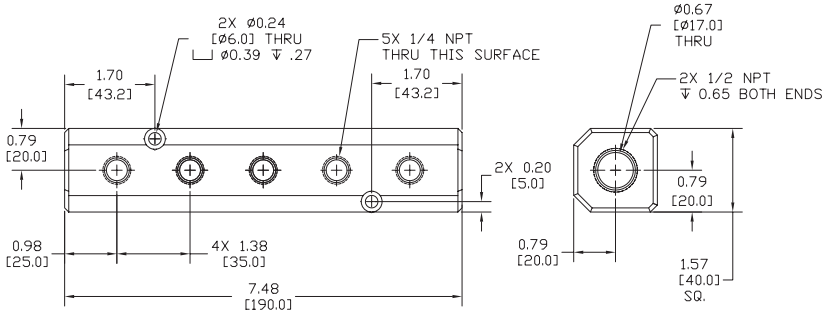
NITRA™ Pneumatic Manifolds				
Part No.	**Price**	**Description**	**Parts Per Pkg**	**Weight**
MYA-2	$6.75	Pneumatic aluminum manifold, round, 1/4 inch female NPT inlet, two 1/4 inch female NPT outlets	1	0.2
MYA-3	$7.00	Pneumatic aluminum manifold, round, 1/4 inch female NPT inlet, three 1/4 inch female NPT outlets	1	0.2
MLA-3	$19.50	Pneumatic aluminum manifold, rectangular, 1/2 inch female NPT inlet, three 1/4 inch female NPT outlets	1	0.9
MLA-5	$28.75	Pneumatic aluminum manifold, rectangular, 1/2 inch female NPT inlet, five 1/4 inch female NPT outlets	1	1.4

Dimensions

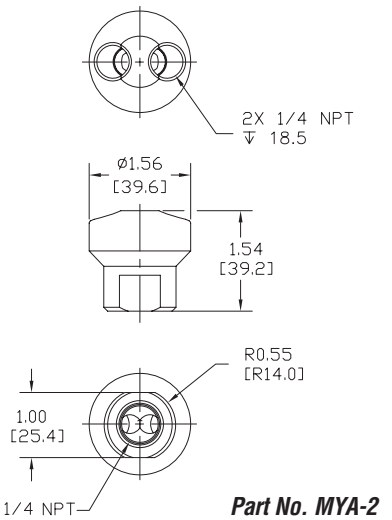
Inches [mm]



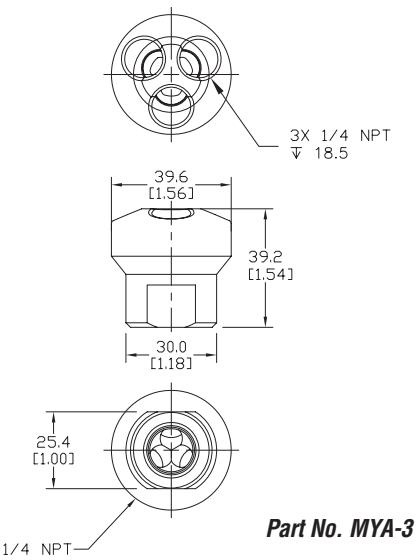
Part No. MLA-3



Part No. MLA-5



Part No. MYA-2



Part No. MYA-3

Pneumatic Fitting Accessories

NITRA Blowguns (or nozzles) are available in heavy duty palm type with safety tip, pistol grips (both aluminum and plastic), a pocket (pencil) type, and plastic grip with flexible nozzles in various lengths.

Features

- Maximum input pressure of 120 psi
- Thread size on inlet 1/4 NPT female (with exception of pocket model which has 1/4" male industrial interchange) quick disconnect

NITRA™ Pneumatic Blow Guns					
Part No.	*Price*	*Description*	*OHSA Directive No. 100-1*	*Parts Per Pkg*	*Weight*
HBG-01	$7.00	Pneumatic blow gun, heavy duty palm type with safety tip, 1/4 inch FNPT connection	yes	1	0.4
HBG-02	$5.50	Pneumatic blow gun, plastic pistol grip with 5 inch nozzle, 1/4 inch FNPT connection	no	1	0.3
HBG-03	$4.25	Pneumatic pocket blow gun with twist on/off valve, 1/4 inch industrial interchange quick-disconnect plug	no	1	0.4
HBG-04	$9.25	Pneumatic blow gun, cast aluminum pistol grip with 6 inch nozzle, 1/4 inch FNPT connection	no	1	1.0
HBG-05	$14.50	Pneumatic blow gun, plastic pistol grip with 4 inch flexible nozzle, 1/4 inch FNPT connection	yes	1	0.4
HBG-06	$15.50	Pneumatic blow gun, plastic pistol grip with 8 inch flexible nozzle, 1/4 inch FNPT connection	yes	1	0.4
HBG-07	$17.00	Pneumatic blow gun, plastic pistol grip with 12 inch flexible nozzle, 1/4 inch FNPT connection	yes	1	0.5
HBG-08	$22.00	Pneumatic blow gun, plastic pistol grip with 16 inch flexible nozzle, 1/4 inch FNPT connection	yes	1	0.6

O.S.H.A. Certification – Blow Guns HBG-01, -05, -06, -07, and -08 conform to the requirements of Compressed Air Standards as currently described in the U.S. Bureau of Labor Standards, standard 1910.242 (OSHA directive STD01-13-001), when pressurized at the inlet to a maximum of 100 PSIG.



HBG-01



HBG-02



HBG-03



HBG-04



HBG-05



HBG-06



HBG-07



HBG-08

NITRA commercial grade thread sealant tape is made with 100% virgin PTFE for strong chemical resistance. Thread sealant color is white and is USDA and FDA compliant.



NITRA™ PTFE Thread Sealing Tape				
Part No.	*Price*	*Description*	*Parts Per Pkg*	*Weight*
TS12-260	$1.25	NITRA pneumatic PTFE thread sealing tape for use with pipe thread connections. 1/2 inch wide by 260 inch long roll.	1	0.02