SLV Series Pneumatic Lockout Valves Accessories



HVM-34N



SLV-PU

Note: HVM series exhaust silencers have a maximum pressure of 250 psi (17 bar).

Features

- Silencers (mufflers) are aluminum construction
- High flow rates needed for safety lockout valves
- Pressure indicator pops out when pressure of 5 psi or more is present

NITRA SLV Series Pneumatic Lockout Valve Accessories

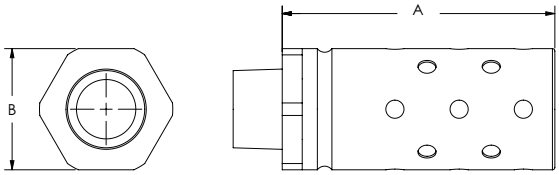
Part No.	Description	Price	Weight (lbs)
HVM-34N-H	NITRA pneumatic exhaust silencer, aluminum, cylindrical, Cv=13.5, 3/4 in male NPT	$66.00	0.6
HVM-114N	NITRA pneumatic exhaust silencer, aluminum, cylindrical, Cv=17.4, 1-1/4 in male NPT	$66.00	0.6
SLV-PU	NITRA pneumatic pop up pressure indicator, 5 psi, 1/8 in male NPT	$32.00	0.1

SLV Series Pneumatic Lockout Valves Accessories

Nitra High Volume Silencers (Mufflers)

Dimensions

inches [mm]

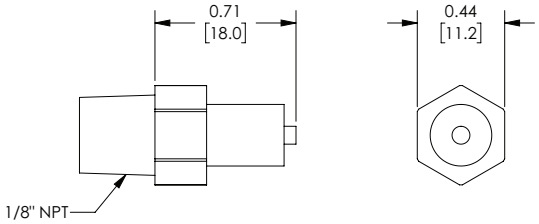


Muffler Dimensions		
Part #	***A***	***B***
HVM-18N	1.6 [40.64]	0.8 [20.32]
HVM-34N	2.9 [73.66]	1.3 [33.02]
HVM-34N-H	4.5 [114.30]	2.0 [50.80]
HVM-114N	4.5 [114.30]	2.0 [50.80]

Nitra Pop Up Pressure Indicator

Dimensions

inches [mm]



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

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 24 VDC or 120 VAC control voltages. The DIN style wiring connector includes LED indication of the solenoid coil status.

Features

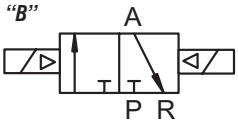
- Body ported, 3-port (3-way) spool valves
- 1/8", 1/4" or 3/8" NPT ports
- 2-position, single solenoid normally closed spring return; 2-position, double solenoid energize open/ energize closed
- 24 VDC or 120 VAC solenoid coils
- DIN style wiring connector with LED indication
- Locking manual operator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

Diagram "A"



2-Pos, Spring Return

Diagram "B"



2-Pos, Double Solenoid





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



CE

AVS-3 Series Specifications

Model	*AVS-3221-24D*	*AVS-3222-24D*	*AVS-3222-120A*
Price	$64.00	$64.00	$62.00
Weight (lb)	0.8	0.7	0.7
Valve Type	3 port 2 position		
Acting	Internally Piloted		
Diagram	B	B	
Port Size	In/Out=1/8"	In/Out=1/4"	
Orifice Size	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	24 VDC double solenoid	24 VDC double solenoid	120 VAC double solenoid
Power Consumption	DC: 3.0 W | AC: 4.5 VA; continuous duty (100% ED)		
Max Frequency	5 cycles/sec		
Operating Life	50,000,000 cycles		
Insulation	B class		
Min Response	0.05 sec		
Temperature	-5 to +60 °C (23 to 140 °F)		
Lubrication	Not Required		
Protection	IP65 (DIN40050)		
Connection	11 mm DIN Terminal		
Body	Aluminum Alloy		
Agency Approvals	Solenoid CE marked; RoHS		

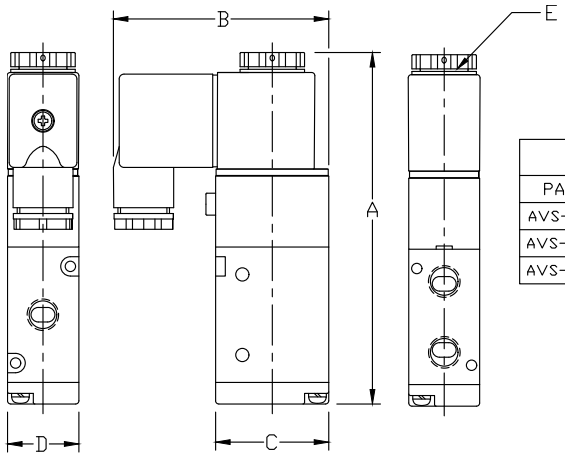
Pneumatic Directional Control Solenoid Valves – AVS-3 Series

AVS-3 Series Specifications			
Model	AVS-3322-24D	AVS-3323-24D	AVS-3323-120A
Price	$84.00	$89.00	Retired
Weight (lb)	0.9	0.9	0.9
Valve Type	3 port 2 position		
Acting	Internally Piloted		
Diagram	B	B	
Port Size	In/Out=1/4"	In/Out=3/8"	
Orifice Size	16 mm² (Cv=1.39)	25 mm² (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	24 VDC double solenoid	24V DC double solenoid	120 VAC double solenoid
Power Consumption	DC: 3.0 W | AC: 4.5 VA; continuous duty (100% ED)		
Max Freq	5 cycles/sec		
Insulation	B class		
Min Response	0.05 sec		
Temperature	-5 to +60 °C (23 to 140 °F)		
Lubrication	Not Required		
Protection	IP65 (DIN40050)		
Connection	11 mm 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	E
AVS-311X-XXX	88.4 [3.48]	54.6 [2.15]	27.0 [1.06]	18.0 [0.71]	M7 - 0.5
AVS-321X-XXX	109.0 [4.29]	66.7 [2.63]	35.0 [1.38]	22.0 [0.87]	M8 - 0.75
AVS-331X-XXX	119.8 [4.72]	69.1 [2.72]	40.0 [1.57]	27.0 [1.06]	M8 - 0.75

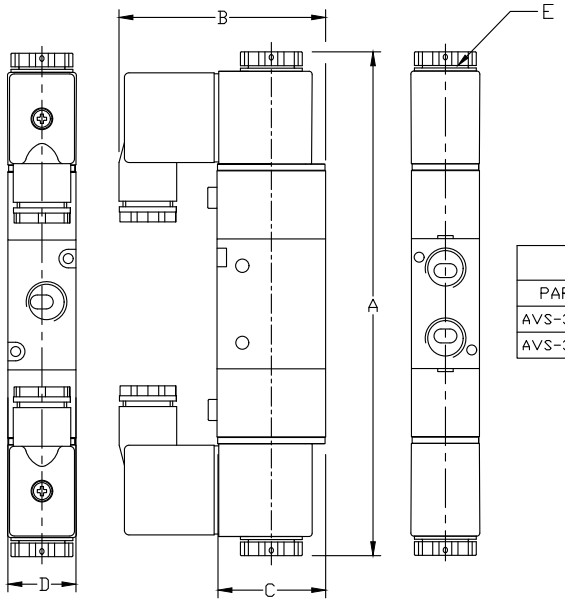
See our website www.AutomationDirect.com for complete Engineering drawings.

Pneumatic Directional Control Solenoid Valves – AVS-3 Series

Dimensions

mm [inches]

AVS-322x,
AVS-332x



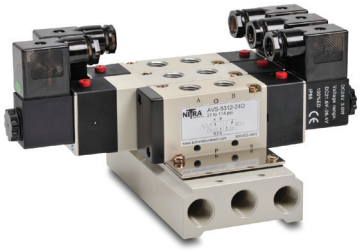
DIMENSION TABLE					
PART NO.	A	B	C	D	E
AVS-322X-XXX	162.8 [6.41]	66.8 [2.63]	34.8 [1.37]	22.0 [0.87]	M8 - 0.75
AVS-332X-XXX	174.8 [6.88]	69.2 [2.72]	40.0 [1.57]	27.0 [1.06]	M8 - 0.75

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

Pneumatic Directional Control Solenoid Valves – AVS-5 Series



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 24 VDC or 120 VAC 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.



Stacked solenoids shown mounted on optional manifold

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
- 24 VDC or 120 VAC solenoid coils
- DIN style wiring connector with LED indication
- Single valve or multiple manifold mounted valve applications
- Locking manual operator
- 2-year warranty







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

CE

AVS-5 Series Specifications

Model	*AVS-513C1-120A*	*AVS-5221-120A*	*AVS-5212-24D*
Price	$86.00	$64.00	Retired
Weight (lb)	0.5	0.8	0.5
Valve Type	5 port 3 position	5 port 2 position	
Acting	Internally Piloted		
Diagram	C	B	A
Port Size	In/Out/Exhaust=1/8"		In/Out=1/4", Exhaust=1/8"
Orifice Size	9 mm² (Cv=0.50)	14 mm² (Cv=0.78)	16 mm² (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)	120 VAC center closed double solenoid	120 VAC double solenoid	24 VDC single solenoid
Power Consumption	DC: 2.5 W | AC: 3.5 VA; continuous duty (100% ED)	DC: 3.0 W | AC: 4.5 VA; continuous duty (100% ED)	
Max Freqency	3 cycles/sec	5 cycles/sec	
Operating Life	50,000,000 cycles		
Insulation	B class		
Min Response	0.05 sec		
Temperature	-5 to +60 °C (23 to 140 °F)		
Lubrication	Not Required		
Protection	IP65 (DIN40050)		
Connection	9.4 mm DIN Terminal	11 mm DIN Terminal	
Body	Aluminum Alloy		
Agency Approvals	Solenoid CE marked; RoHS		

Pneumatic AVS Directional Control Solenoid Valves – AVS-5 Series



Diagram "A"



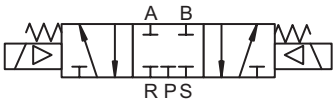
2-Pos, Spring Return

Diagram "B"



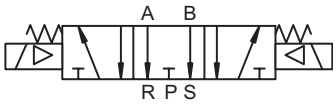
2-Pos, Double Solenoid

Diagram "C"



3-Pos, Closed Center

Diagram "D"



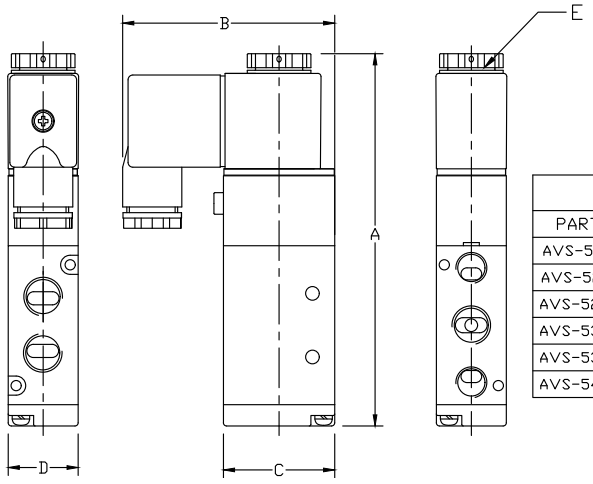
3-Pos, Exhaust Center

AVS-5 Series Specifications	
Model	***AVS-523C1-120A***
Price	$108.00
Weight (lb)	0.8
Valve Type	5 port 3 position
Acting	Internally Piloted
Diagram	C
Port Size	In/Out/Exhaust=1/8"
Orifice Size	12 mm² (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)	120 VAC center closed double solenoid
Power Consumption	DC: 3.0 W | AC: 4.5 VA; continuous duty (100% ED)
Max Frequency	3 cycles/sec
Operating Life	50,000,000 cycles
Insulation	B class
Min Response	0.05 sec
Temperature	-5 to +60 °C (23 to 140 °F)
Lubrication	Not Required
Protection	IP65 (DIN40050)
Connection	11 mm DIN Terminal
Body	Aluminum Alloy
Agency Approvals	Solenoid CE marked; RoHS

Pneumatic AVS Directional Control Solenoid Valves – AVS-5 Series

Dimensions

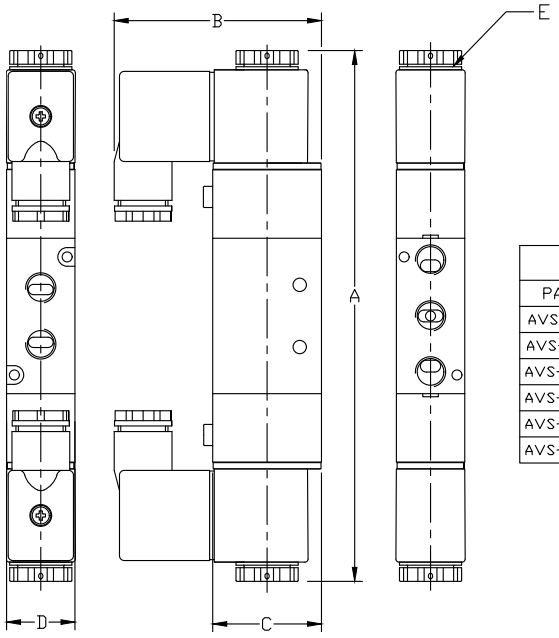
mm [inches]



DIMENSION TABLE					
PART NO.	A	B	C	D	E
AVS-5111-XXX	99.4 [3.91]	55.0 [2.17]	27.0 [1.06]	18.0 [0.71]	M7 - 0.5
AVS-5211-XXX	117.1 [4.61]	66.7 [2.63]	35.0 [1.38]	22.0 [0.87]	M8 - 0.75
AVS-5212-XXX	117.1 [4.61]	66.7 [2.63]	35.0 [1.38]	22.0 [0.87]	M8 - 0.75
AVS-5312-XXX	134.9 [5.31]	69.2 [2.72]	40.0 [1.57]	27.0 [1.06]	M8 - 0.75
AVS-5313-XXX	134.9 [5.31]	69.2 [2.72]	40.0 [1.57]	27.0 [1.06]	M8 - 0.75
AVS-5414-XXX	168.4 [6.63]	74.0 [2.91]	50.0 [1.97]	34.0 [1.34]	M8 - 0.75

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

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



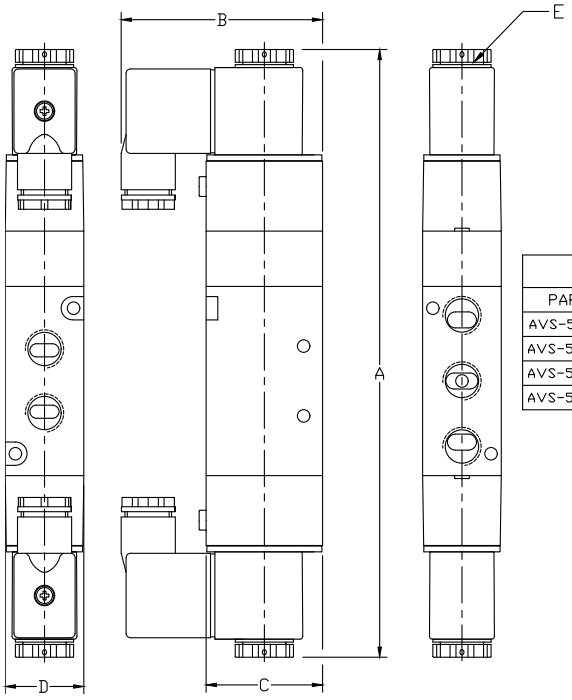
DIMENSION TABLE					
PART NO.	A	B	C	D	E
AVS-5121-XXX	142.4 [5.61]	54.8 [2.16]	27.0 [1.06]	18.0 [0.71]	M7 - 0.5
AVS-5221-XXX	170.8 [6.72]	66.7 [2.63]	35.0 [1.38]	22.0 [0.87]	M8 - 0.75
AVS-5222-XXX	170.8 [6.72]	66.7 [2.63]	35.0 [1.38]	22.0 [0.87]	M8 - 0.75
AVS-5322-XXX	189.8 [7.47]	69.2 [2.72]	40.0 [1.57]	27.0 [1.06]	M8 - 0.75
AVS-5323-XXX	189.8 [7.47]	69.2 [2.72]	40.0 [1.57]	27.0 [1.06]	M8 - 0.75
AVS-5424-XXX	222.8 [8.77]	74.0 [2.91]	50.0 [1.97]	34.0 [1.34]	M8 - 0.75

Pneumatic Directional Control Solenoid Valves – AVS-5 Series

Dimensions

mm [inches]

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



DIMENSION TABLE					
PART NO.	A	B	C	D	E
AVS-513XX-XXX	157.4 [6.20]	54.8 [2.16]	26.6 [1.05]	18.0 [0.71]	M7 - 0.5
AVS-523XX-XXX	189.8 [7.47]	66.7 [2.63]	35.0 [1.38]	22.0 [0.87]	M8 - 0.75
AVS-533XX-XXX	208.8 [8.22]	69.2 [2.72]	40.0 [1.57]	27.0 [1.06]	M8 - 0.75
AVS-543XX-XXX	243.8 [9.60]	74.0 [2.91]	50.0 [1.97]	34.0 [1.34]	M8 - 0.75

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

Pneumatic A-Series Direction Control Solenoid Valves - Accessories



AVC1



AVC2

Pneumatic A-Series Directional Control Solenoid Valve Series Accessories

Part No.	Price	Description	Weight (lb)
AVC1-24A	$13.00	NITRA solenoid coil, 24 VAC, 4.0 VA. For use with AVS-31 and AVS-51 series valves.	0.1
AVC1-120A	$13.00	NITRA solenoid coil, 120 VAC, 3.5 VA. For use with AVS-31 and AVS-51 series valves.	0.1
AVC2-120A	$13.00	NITRA solenoid coil, 120 VAC, 4.5VA. For use with AVP-31, AVS-32, AVS-33, AVS-52, AVS-53, AVS-54 series valves and ASD series soft starters.	0.2
AVP-31BKT	$2.25	NITRA individual mounting bracket, plated steel. For use with AVP-31 directional control valves.	0.1
AVP-31KIT	$3.25	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



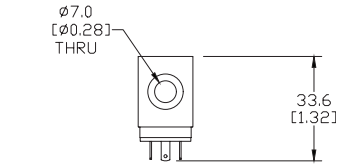
AVP-31BKT

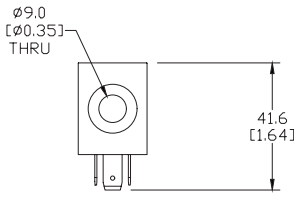


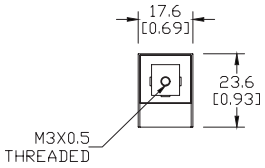
AVP-31KIT

Dimensions

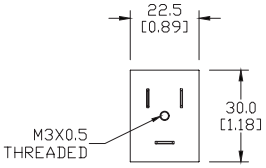
mm [inches]



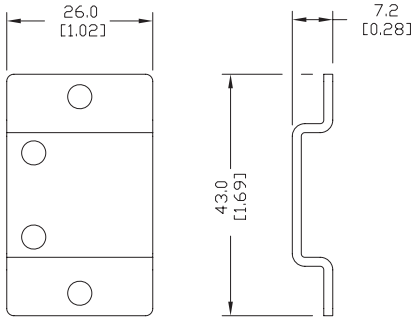




AVC1 Series Coils



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	$27.00	NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 1/4 in FNPT inlet port(s), (2) 1/4 in FNPT exhaust port(s). For use with AVS-31 series.	0.2
AM-316	$47.00	NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/4 in FNPT inlet port(s), (2) 1/4 in FNPT exhaust port(s). For use with AVS-31 series.	0.4
AM-318	$61.00	NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 1/4 in FNPT inlet port(s), (2) 1/4 in FNPT exhaust port(s). For use with AVS-31 series.	0.5
AM-31BP	$5.25	NITRA blanking plate, plated steel. For use with AM-31 series manifolds.	0.1
AM-322	$25.00	NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 1/4 in FNPT inlet port(s), (2) 1/4 in FNPT exhaust port(s). For use with AVS-32 series.	0.2
AM-324	$44.00	NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 1/4 in FNPT inlet port(s), (2) 1/4 in FNPT exhaust port(s). For use with AVS-32 series.	0.4
AM-326	$62.00	NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/4 in FNPT inlet port(s), (2) 1/4 in FNPT exhaust port(s). For use with AVS-32 series.	0.5
AM-328	$81.00	NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 1/4 in FNPT inlet port(s), (2) 1/4 in FNPT exhaust port(s). For use with AVS-32 series.	0.7
AM-32BP	$5.25	NITRA blanking plate, plated steel. For use with AM-32 series manifolds.	0.1
AM-332	$28.00	NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 3/8 in FNPT inlet port(s), (2) 3/8 in FNPT exhaust port(s). For use with AVS-33 series.	0.4
AM-334	$50.00	NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 3/8 in FNPT inlet port(s), (2) 3/8 in FNPT exhaust port(s). For use with AVS-33 series.	0.6
AM-338	$95.00	NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 3/8 in FNPT inlet port(s), (2) 3/8 in FNPT exhaust port(s). For use with AVS-33 series.	1.1
AM-516	$34.50	NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/4 in FNPT inlet port(s), (4) 1/4 in FNPT exhaust port(s). For use with AVS-51 series.	0.8
AM-518	$48.50	NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 1/4 in FNPT inlet port(s), (4) 1/4 in FNPT exhaust port(s). For use with AVS-51 series.	1.1
AM-51BP	$6.75	NITRA blanking plate, plated steel. For use with AM-51 series manifolds.	0.1
AM-522	$18.50	NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 1/4 in FNPT inlet port(s), (4) 1/4 in FNPT exhaust port(s). For use with AVS-52 series.	0.5

Pneumatic Directional Control Solenoid Valve Manifolds and Accessories



AM-5 Series Manifolds



AM-31GS

Pneumatic Directional Control Solenoid Valve Series Accessories Continued

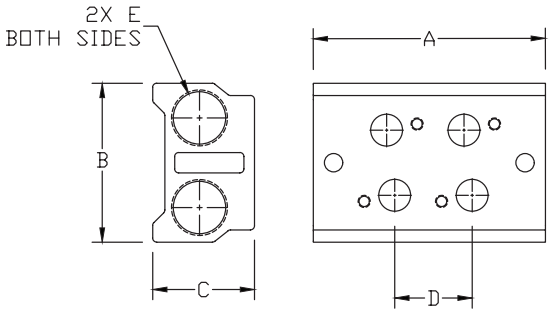
Part No.	Price	Description	Weight (lb)
AM-534	$48.00	NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 3/8 in FNPT inlet port(s), (4) 3/8 in FNPT exhaust port(s). For use with AVS-53 series.	1.4
AM-538	$96.00	NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 3/8 in FNPT inlet port(s), (4) 3/8 in FNPT exhaust port(s). For use with AVS-53 series.	2.5
AM-53BP	$7.75	NITRA blanking plate, plated steel. For use with AM-53 series manifolds.	0.1
AM-542	$32.00	NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 1/2 in FNPT inlet port(s), (4) 1/2 in FNPT exhaust port(s). For use with AVS-54 series.	1.7
AM-544	$65.00	NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 1/2 in FNPT inlet port(s), (4) 1/2 in FNPT exhaust port(s). For use with AVS-54 series.	2.8
AM-546	$100.00	NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/2 in FNPT inlet port(s), (4) 1/2 in FNPT exhaust port(s). For use with AVS-54 series.	4.0
AM-548	$119.00	NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 1/2 in FNPT inlet port(s), (4) 1/2 in FNPT exhaust port(s). For use with AVS-54 series.	5.2
AM-54BP	$7.75	NITRA blanking plate, plated steel. For use with AM-54 series manifolds.	0.1
AM-31GS	$5.50	NITRA manifold mounting set, for use with AM-31 series manifolds.	0.1
AM-32GS	$6.50	NITRA manifold mounting set, for use with AM-32 series manifolds.	0.1
AM-33GS	$6.50	NITRA manifold mounting set, for use with AM-33 series manifolds.	0.1
AM-51GS	$5.50	NITRA manifold mounting set, for use with AM-51 series manifolds.	0.1
AM-52GS	$6.50	NITRA manifold mounting set, for use with AM-52 series manifolds.	0.1
AM-53GS	$6.50	NITRA manifold mounting set, for use with AM-53 series manifolds.	0.1
AM-54GS	$6.75	NITRA manifold mounting set, for use with AM-54 series manifolds.	0.1

Pneumatic Directional Control Solenoid Valve Manifolds and Accessories

Dimensions

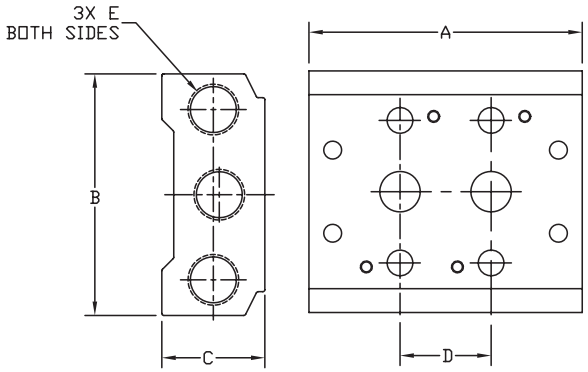
mm [inches]

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.

MVDC - Stackable Solenoid Valves



Part No. 103022011324002



Assembly example shown.

The MVDC-220 series is a compact, direct-acting solenoid valve designed for air applications up to 102 psi. Available in 2-way / 2-position and 3-way / 2-position configurations with 1/8" NPT ports, these valves feature a quick 20 ms response time. The series offers both 24 VDC and 110 VAC power options to accommodate various control system requirements.

Features

- Compact design: 22.3mm width, 155g weight with stacked mounting capability for space-efficient installations
- LED visual indication: Solenoid connector with built-in LED provides instant valve status feedback for easy troubleshooting
- Quick response: 20 ms actuation time with operating pressure range from 0-102 psi
- NPT threading: Standard NPT port threads for easy integration into North American pneumatic systems
- Locking manual override standard on all valves for testing/troubleshooting

Diagram "A"

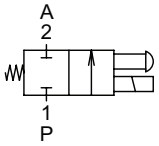
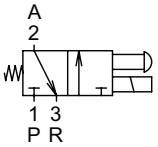


Diagram "B"



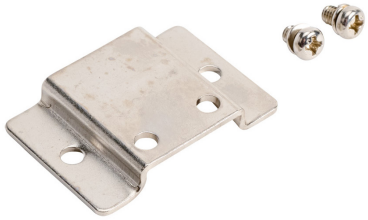
MVDC - Stackable Solenoid Valves				
Part No.	***103022011324002***	***103022011524002***	***103022013324003***	***103022013524003***
Mfg. Part No.	***MVDC-220-2E1-DC24-L-NPT***	***MVDC-220-2E1-AC110-L-NPT***	***MVDC-220-3E1-DC24-L-NPT***	***MVDC-220-3E1-AC110-L-NPT***
Price	$28.00	$28.00	$28.00	$28.00
Drawing Link	PDF	PDF	PDF	PDF
Weight (lb)	0.35	0.35	0.35	0.35
Manufacturer Specs	PDF			
Valve Type	2-port (2-way)	2-port (2-way)	3-port (3-way)	3-port (3-way)
Positions	2			
Pneumatic Diagram	A		B	
Operating Voltage	24 VDC	110 VAC	24 VDC	110 VAC
Power Rating	2W	4.4VA	2W	4.4VA
Electrical Connection	11mm DIN style wiring plug			
Valve Configuration	N.C.			
Acting	Single solenoid spring return			
Inlet Port Size	(2) 1/8" FNPT			
Outlet Port Size	1/8" FNPT			
Exhaust	N/A		Vent hole	Vent hole
Flow (Cv)	0.04	0.04	0.04	0.04
Media	Filtered air without lubrication; lubrication, if used, must be continuous			
Min. Operating Pressure	0 psi			
Max. Operating Pressure	102 psi			
Temperature	23 to 122 °F (-5 to +50 °C)			
Lubrication	ISO VG32 or equivalent			
Life Cycle	10 Million cycles			

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

MVDC - Stackable Solenoid Valves



Part No. 203022000000025



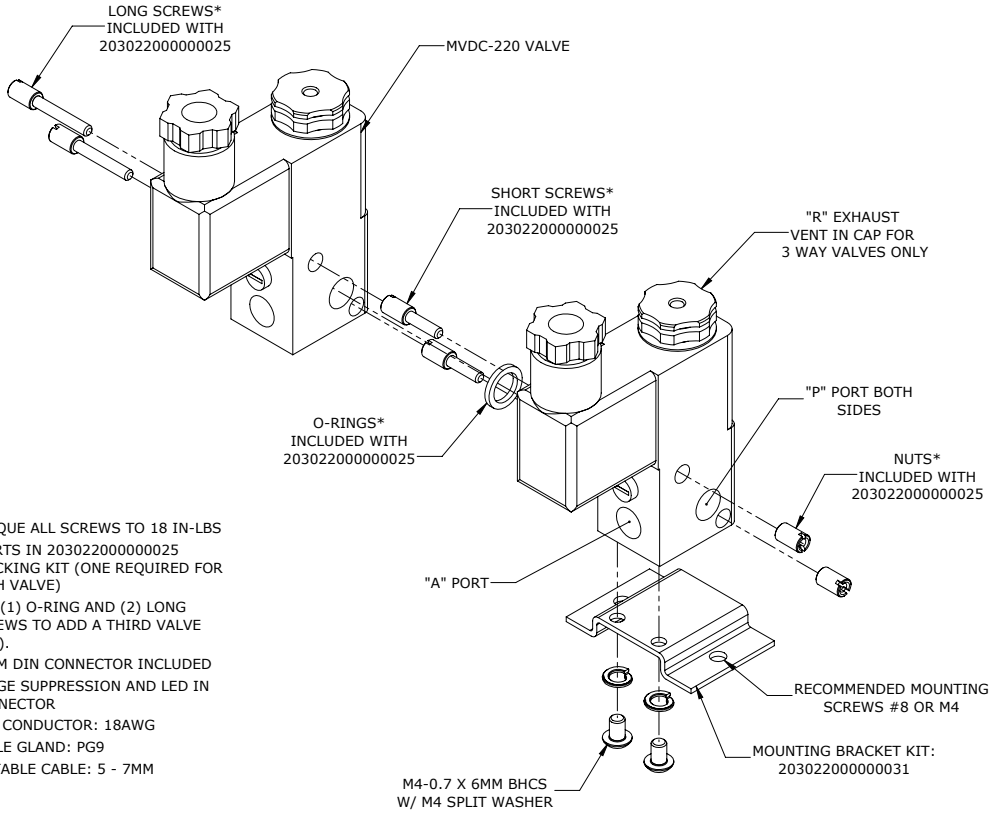
Part No. 203022000000031



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

MVDC - Stackable Solenoid Valve Accessories

Part No.	Mfg. Part No.	Description	Manufacturer Technical Specifications	Drawing Link	Price	Weight (lb)
203022000000025	MVDC-220-M2	Mindman mounting kit, plated steel. For use with MVDC series solenoid directional control valves. Includes (2) long stacking screws, (2) short stacking screws, (2) nuts and (1) nitrile O-ring.	PDF	PDF	$5.75	0.02
203022000000031	MVDC-220-B	Mindman individual mounting bracket, plated steel. For use with MVDC series solenoid directional control valves. Bracket and fasteners included.		PDF	$2.00	0.05



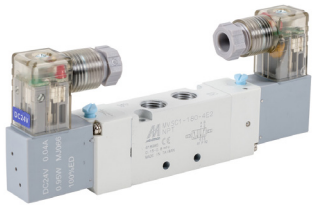
- TORQUE ALL SCREWS TO 18 IN-LBS
- *PARTS IN 203022000000025 STACKING KIT (ONE REQUIRED FOR EACH VALVE)
- USE (1) O-RING AND (2) LONG SCREWS TO ADD A THIRD VALVE (TYP).
- 11MM DIN CONNECTOR INCLUDED
- SURGE SUPPRESSION AND LED IN CONNECTOR
- MAX CONDUCTOR: 18AWG
- CABLE GLAND: PG9
- SUITABLE CABLE: 5 - 7MM

Click or scan the QR code for assembly instructions.

MVSC1 - Series Solenoid Valves



Part No. 100815015321002



Part No. 100818016324001

The MVSC1-150 and MVSC1-180 series are compact solenoid valves designed for precise pneumatic control in industrial automation applications. The MVSC1-150 series features M5×0.8 ports, while the MVSC1-180 series offers 1/8" NPT ports for higher flow capacity. Both series are available in single solenoid and double solenoid configurations with 24 VDC and 110 VAC options.

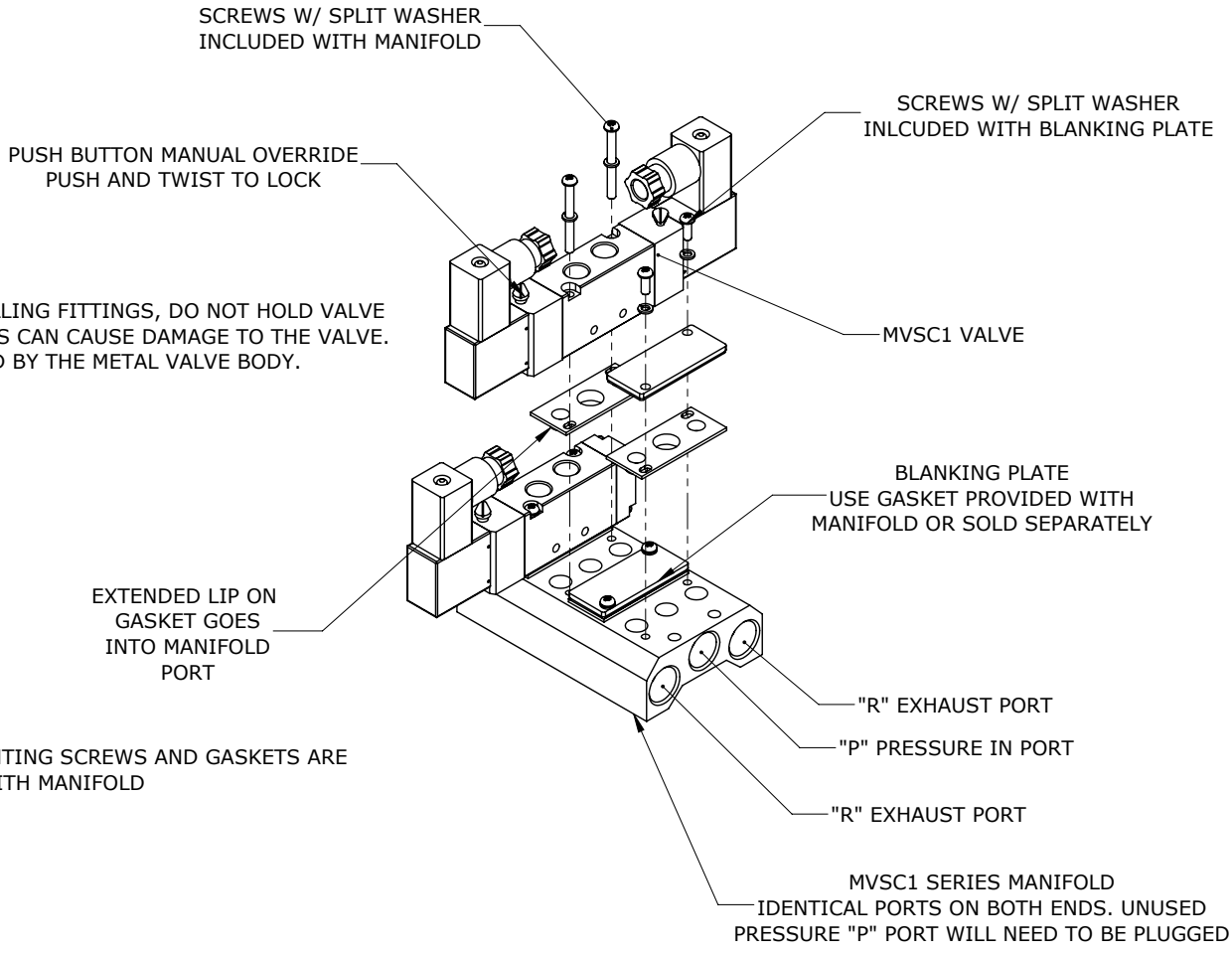
Features

- Versatile configurations: MVSC1-150 offers 4-way/5-port control with M5 threading; MVSC1-180 expands options with 3-way and 4-way configurations plus specialized center position types (closed, pressure, exhaust) with NPT threading
- Fast response times: MVSC1-150 achieves <23 ms (DC) response; MVSC1-180 provides <25-30 ms (DC) depending on model for quick actuation
- Wide pressure range: Operating pressure from 22 to 116 psi with proof pressure rating of 145 psi for reliable performance across various applications
- LED visual indication: All solenoid connectors include built-in LED indicators for instant valve status feedback and easy troubleshooting

Click or scan the QR code for assembly instructions.



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



CAUTION:
WHEN INSTALLING FITTINGS, DO NOT HOLD VALVE BY COIL. THIS CAN CAUSE DAMAGE TO THE VALVE. ALWAYS HOLD BY THE METAL VALVE BODY.

- VALVE MOUNTING SCREWS AND GASKETS ARE SUPPLIED WITH MANIFOLD

MVSC1 - Series Solenoid Valves

Diagram "A"

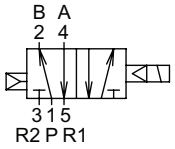


Diagram "B"

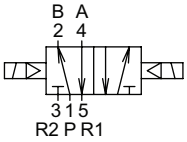


Diagram "C"

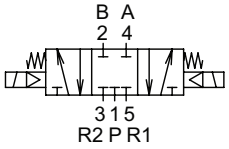


Diagram "D"

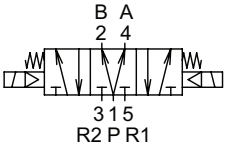


Diagram "E"

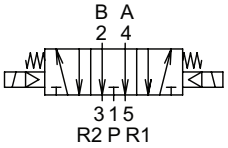
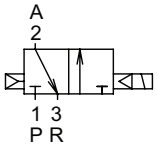


Diagram "F"



MVSC1 Series Solenoid Valves

Part No.	100815015321002	100815015521002	100815016321001	100815016521001	100818033324001	100818033524001	100818015324002
Mfg. Part No.	MVSC1-150-4E1-DC24-L	MVSC1-150-4E1-AC110-L	MVSC1-150-4E2-DC24-L	MVSC1-150-4E2-AC110-L	MVSC1-180-3E1-NC-DC24-L-NPT	MVSC1-180-3E1-NC-AC110-L-NPT	MVSC1-180-4E1-DC24-L-NPT
Price	$28.00	$29.00	$48.00	$49.00	$31.00	$31.00	$31.00
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF	PDF
Weight (lb)	0.22	0.21	0.33	0.33	0.25	0.24	0.26
Manufacturer Specs	PDF				PDF		
Valve Type	5-port (4-way)				3-port (3-way)		5-port (4-way)
Positions	2						
Pneumatic Diagram	A		B		F		A
Operating Voltage	24 VDC	110 VAC	24 VDC	110 VAC	24 VDC	110 VAC	24 VDC
Power Rating	0.95W	1.12VA	0.95W	1.12VA	0.95W	1.12VA	0.95W
Electrical Connection	9.4mm DIN style wiring plug						
Valve Configuration	N/A				N.C.		N/A
Acting	Single solenoid internal pilot return		Double solenoid		Single solenoid internal pilot return		
Inlet Port Size	M5 x 0.8 female				1/8" FNPT		
Outlet Port Size	(2) M5 x 0.8 female				1/8" FNPT		(2) 1/8" FNPT
Exhaust	(2) M5 x 0.8 female				1/8" FNPT		(2) 1/8" FNPT
Flow (Cv)	0.21	0.21	0.21	0.21	0.83	0.83	0.67
Media	Filtered air without lubrication; lubrication, if used, must be continuous						
Min. Operating Pressure	22 psi						
Max. Operating Pressure	116 psi						
Temperature	23 to 122 °F (-5 to +50 °C)						
Lubrication	ISO VG32 or equivalent						
Life Cycle	10 Million cycles						

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

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MVSC1 - Series Solenoid Valves

Diagram "A"

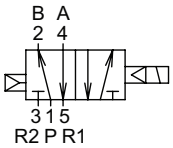


Diagram "B"

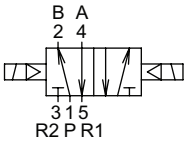


Diagram "C"

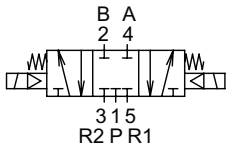


Diagram "D"

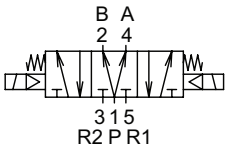


Diagram "E"

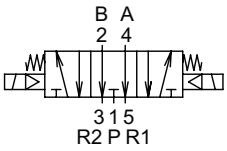
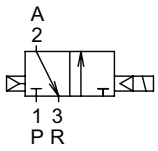


Diagram "F"



MVSC1 Series Solenoid Valves

Part No.	100818015524001	100818016324001	100818016524001	100818017324001	100818017524001	100818018324001	100818019324001
Mfg. Part No.	MVSC1-180-4E1-AC110-L-NPT	MVSC1-180-4E2-DC24-L-NPT	MVSC1-180-4E2-AC110-L-NPT	MVSC1-180-4E2C-DC24-L-NPT	MVSC1-180-4E2C-AC110-L-NPT	MVSC1-180-4E2P-DC24-L-NPT	MVSC1-180-4E2R-DC24-L-NPT
Price	$31.00	$48.00	$49.00	$64.00	$66.00	$64.00	$64.00
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF	PDF
Weight (lb)	0.27	0.38	0.38	0.40	0.40	0.40	0.40
Manufacturer Specs	PDF						
Valve Type	5-port (4-way)						
Positions	2			3			
Pneumatic Diagram	A	B		C		D	E
Operating Voltage	110 VAC	24 VDC	110 VAC	24 VDC	110 VAC	24 VDC	24 VDC
Power Rating	1.12VA	0.95W	1.12VA	0.95W	1.12VA	0.95W	0.95W
Electrical Connection	9.4mm DIN style wiring plug						
Valve Configuration	N/A			Center closed		Center pressure	Center exhaust
Acting	Single solenoid internal pilot return	Double solenoid					
Inlet Port Size	1/8" FNPT						
Outlet Port Size	(2) 1/8" FNPT						
Exhaust	(2) 1/8" FNPT						
Flow (Cv)	0.67	0.67	0.67	0.5	0.5	0.5	0.5
Media	Filtered air without lubrication; lubrication, if used, must be continuous						
Min. Operating Pressure	22 psi		29 psi				
Max. Operating Pressure	116 psi		102 psi				
Temperature	23 to 122 °F (-5 to +50°C)						
Lubrication	ISO VG32 or equivalent						
Life Cycle	10 Million cycles						

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

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MVSC1 - Valve Manifolds



Part No. 100015093024001



Part No. 100218091064001



Part No. 100018093084002

Screws and gaskets included with manifolds.

MVSC1 manifolds fit MVSC1-150 and MVSC1-220 valves. Available in 2 to 8 stations with blanking plates sold separately.

Features

- Made from aluminum
- All manifolds include valve mounting screws and gaskets



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

MVSC1 - Valve Manifolds								
Part No.	*Mfg. Part No.*	*Number of Stations*	*Inlet Port Size*	*Exhaust Port Size*	*Manufacturer Technical Specifications*	*Drawing Link*	*Price*	*Weight (lb)*
100015093024001	*MVSC1-150-5B2-NPT*	2	(2) 1/8" FNPT	(4) 1/8" FNPT	PDF	PDF	$11.00	0.41
100015093044001	*MVSC1-150-5B4-NPT*	4				PDF	$17.00	0.64
100015093064001	*MVSC1-150-5B6-NPT*	6				PDF	$23.00	0.87
100015093084001	*MVSC1-150-5B8-NPT*	8				PDF	$29.00	1.11
100218091024001	*MVSC1-180-3B2-NPT*	2	(2) 1/4" FNPT	(2) 1/4" FNPT	PDF	PDF	$19.00	0.33
100218091044002	*MVSC1-180-3B4-NPT*	4				PDF	$27.00	0.55
100218091064001	*MVSC1-180-3B6-NPT*	6				PDF	$32.00	0.77
100218091084001	*MVSC1-180-3B8-NPT*	8				PDF	$42.00	0.99
100018093024002	*MVSC1-180-5B2-NPT*	2		(4) 1/4" FNPT		PDF	$9.50	0.32
100018093044002	*MVSC1-180-5B4-NPT*	4				PDF	$17.00	0.53
100018093064002	*MVSC1-180-5B6-NPT*	6				PDF	$24.50	0.75
100018093084002	*MVSC1-180-5B8-NPT*	8				PDF	$34.00	0.97

MVSC1 - Accessories

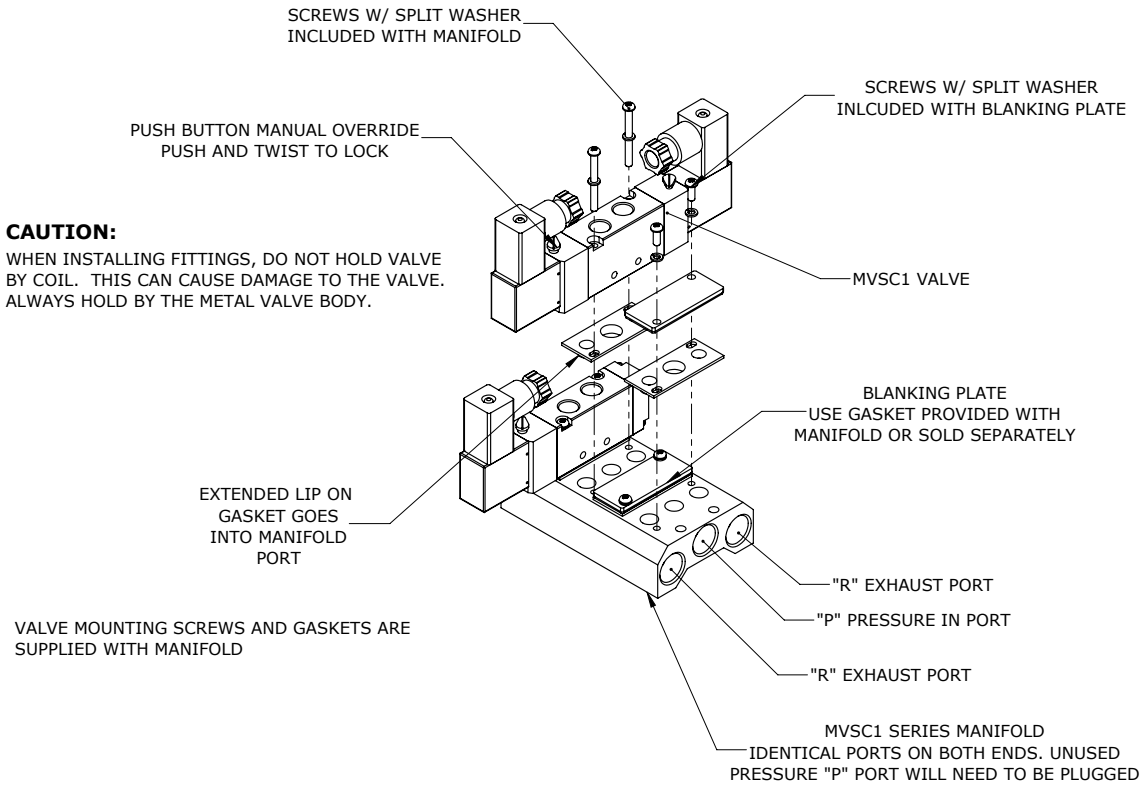


Part No. 100018091000002



Part No. MVSC180-5-SK

MVSC1 - Accessories						
Part No.	*Mfg. Part No.*	*Description*	*Manufacturer Technical Specifications*	*Drawing Link*	*Price*	*Weight (lb)*
100015093000001	*MVSC1-150-5P*	Mindman blanking plate, plated steel. For use with MVSC1-150 series manifolds. Mounting screws included.	PDF	PDF	$2.00	0.03
100018091000002	*MVSC1-180-3P*	Mindman blanking plate, plated steel. For use with MVSC1-180-3 series manifolds. Mounting screws included.	PDF	PDF	$2.00	0.03
100018093000004	*MVSC1-180-5P*	Mindman blanking plate, plated steel. For use with MVSC1-180-5 series manifolds. Mounting screws included.		PDF	$2.00	0.04
MVSC150-SK	*N/A*	Mindman seal kit, replacement. For use with MVSC1-150 series manifolds. Includes (4) gaskets and (8) screws.	N/A	N/A	$6.25	0.03
MVSC180-3-SK		Mindman seal kit, replacement. For use with MVSC1-180-3 series manifolds. Includes (4) gaskets and (8) screws.			$7.75	0.04
MVSC180-5-SK		Mindman seal kit, replacement. For use with MVSC1-180-5 series manifolds. Includes (4) gaskets and (8) screws.			$6.25	0.05



MVSC - Series Solenoid Valves

The MVSC-220, MVSC-300, and MVSC-460 series are industrial solenoid valves designed for versatile pneumatic control applications with NPT threading. These series offer progressive flow capacities with 1/4", 3/8", and 1/2" port sizes to accommodate various system requirements. Available in 3-way and 4-way configurations with single and double solenoid options, plus specialized center position types (closed, pressure, exhaust) for enhanced control flexibility and support both 24 VDC and 110 VAC power options.



Part No. 100222015324006

Features

- Scalable flow capacity: Three size options (220/300/460) provide a variety of effective orifices for applications ranging from compact systems to high-flow requirements
- Versatile control configurations: 3-way normally closed and 4-way options including single solenoid, double solenoid, plus center position variants (closed/pressure/exhaust) for precise application matching
- Fast response times: 30-50 ms actuation across the series with operating pressure ranges from 29-116 psi for reliable pneumatic control
- NPT threading with LED indication: All models feature NPT ports for North American standards compatibility and solenoid connectors with built-in LED indicators for instant valve status



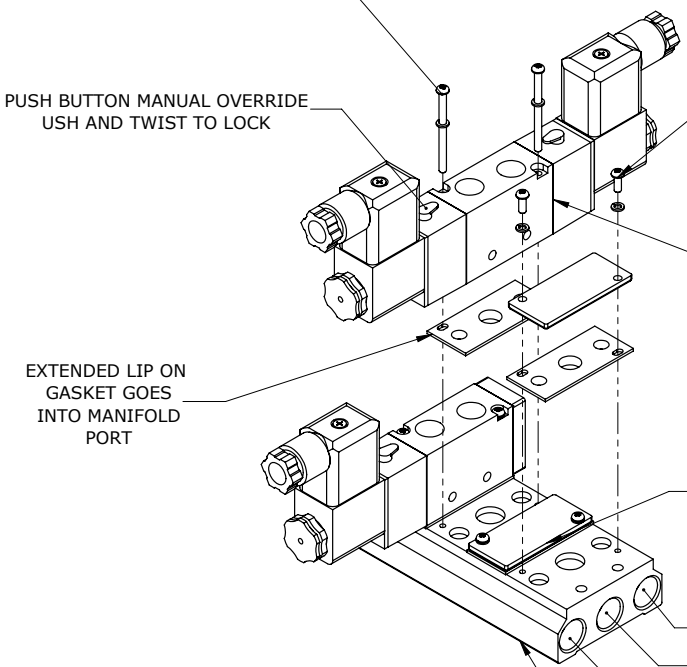
Part No. 100230016524003



Part No. 100246016524003



Part No. 100246017324004



Click or scan the QR code for assembly instructions.



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

- VALVE MOUNTING SCREWS AND GASKETS ARE SUPPLIED WITH MANIFOLD
- VALVES WITH A DC SOLENOID COIL ORIGINALLY CAN ONLY BE REPLACED WITH OTHER DC SOLENOID COILS.
- VALVES WITH AN AC SOLENOID COIL ORIGINALLY CAN BE REPLACED WITH AN AC OR DC SOLENOID COIL.

MVSC - Series Solenoid Valves

Diagram "A"

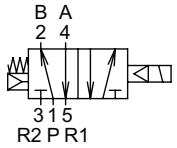


Diagram "B"

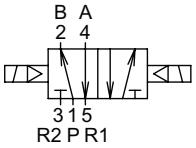


Diagram "C"

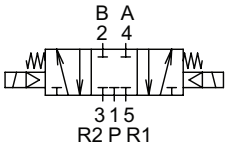


Diagram "D"

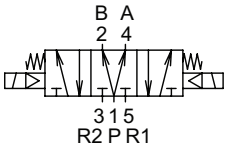


Diagram "E"

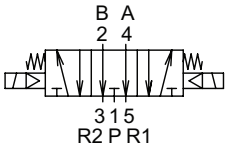
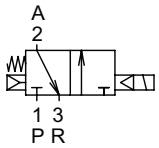


Diagram "F"



MVSC Series Solenoid Valves

Part No.	1002220333240004	1002220335240003	1002220153240006	1002220155240004	1002220163240002	1002220165240003	1002220173240001	1002220183240001	1002220193240004
Mfg. Part No.	MVSC-220-3E1-NC-DC24-L-NPT	MVSC-220-3E1-NC-AC110-L-NPT	MVSC-220-4E1-DC24-L-NPT	MVSC-220-4E1-AC110-L-NPT	MVSC-220-4E2-DC24-L-NPT	MVSC-220-4E2-AC110-L-NPT	MVSC-220-4E2C-DC24-L-NPT	MVSC-220-4E2P-DC24-L-NPT	MVSC-220-4E2R-DC24-L-NPT
Price	$31.00	$31.00	$31.00	$31.00	$49.00	$49.00	$82.00	$85.00	$82.00
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF
Weight (lb)	0.44	0.43	0.48	0.48	0.74	0.73	0.79	0.79	0.79
Manufacturer Specs	PDF								
Valve Type	3-port (3-way)		5-port (4-way)						
Positions	2						3		
Pneumatic Diagram	F		A		B		C	D	E
Operating Voltage	24 VDC	110 VAC	24 VDC	110 VAC	24 VDC	110 VAC	24 VDC	24 VDC	24 VDC
Power Rating	2W	4.4VA	2W	4.4VA	2W	4.4VA	2W	2W	2W
Electrical Connection	11mm DIN style wiring plug								
Valve Configuration	N.C.		N/A				Center closed	Center pressure	Center exhaust
Acting	Single solenoid spring return				Double solenoid				
Inlet Port Size	1/4" FNPT		1/4" FNPT						
Outlet Port Size	1/4" FNPT		(2) 1/4" FNPT						
Exhaust	1/4" FNPT		(2) 1/8" FNPT						
Flow (Cv)	1	1	1	1	1	1	0.89	0.89	0.89
Media	Filtered air without lubrication; lubrication, if used, must be continuous								
Min. Operating Pressure	29 psi						44 psi		
Max. Operating Pressure	116 psi								
Temperature	23 to 122 °F (-5 to +50 °C)								
Lubrication	ISO VG32 or equivalent								
Life Cycle	10 Million cycles								

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

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MVSC - Series Solenoid Valves

Diagram "A"

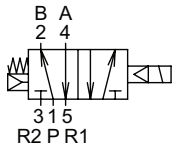


Diagram "B"

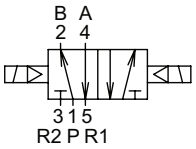


Diagram "C"

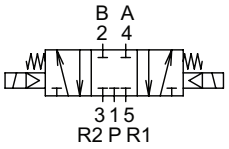


Diagram "D"

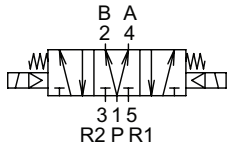


Diagram "E"

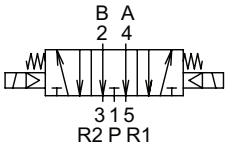
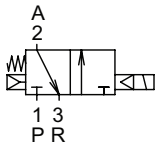


Diagram "F"



MVSC Series Solenoid Valves

Part No.	1002201952400 2	1002300333240 03	1002300353240 03	1002300153240 05	1002300155240 04	1002300163240 03	1002300165240 03	1002300173240 03
Mfg. Part No.	MVSC-220-4E2R-AC110-L-NPT	MVSC-300-3E1-NC-DC24-L-NPT	MVSC-300-3E1-NC-AC110-L-NPT	MVSC-300-4E1-DC24-L-NPT	MVSC-300-4E1-AC110-L-NPT	MVSC-300-4E2-DC24-L-NPT	MVSC-300-4E2-AC110-L-NPT	MVSC-300-4E2C-DC24-L-NPT
Price	$85.00	$44.00	$44.00	$43.00	$43.00	$61.00	$62.00	$109.00
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF
Weight (lb)	0.78	0.77	0.76	0.76	0.76	1.06	1.06	1.19
Manufacturer Specs	PDF	PDF						
Valve Type	5-port (4-way)	3-port (3-way)		5-port (4-way)				
Positions	3	2						3
Pneumatic Diagram	E	F		A		B		C
Operating Voltage	110 VAC	24 VDC	110 VAC	24 VDC	110 VAC	24 VDC	110 VAC	24 VDC
Power Rating	4.4VA	2W	4.4VA	2W	4.4VA	2W	4.4VA	2W
Electrical Connection	11mm DIN style wiring plug							
Valve Configuration	Center exhaust	N.C.		N/A				Center closed
Acting	Double solenoid	Single solenoid spring return				Double solenoid		
Inlet Port Size	1/4" FNPT	3/8" FNPT		3/8" FNPT				
Outlet Port Size	(2) 1/4" FNPT	3/8" FNPT		(2) 3/8" FNPT				
Exhaust	(2) 1/8" FNPT	3/8" FNPT		(2) 3/8" FNPT				
Flow (Cv)	0.89	1.67	1.67	1.94	1.94	1.94	1.94	1.39
Media	Filtered air without lubrication; lubrication, if used, must be continuous							
Min. Operating Pressure	44 psi	29 psi						44 psi
Max. Operating Pressure	116 psi							
Temperature	23 to 122 °F (-5 to +50 °C)							
Lubrication	ISO VG32 or equivalent							
Life Cycle	10 Million cycles							

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

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MVSC - Series Solenoid Valves

Diagram "A"

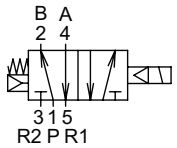


Diagram "B"

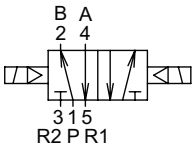


Diagram "C"

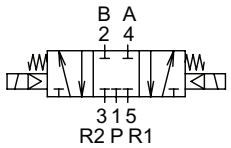


Diagram "D"

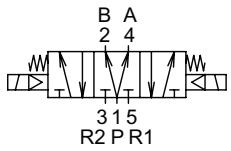


Diagram "E"

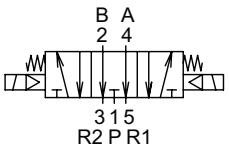
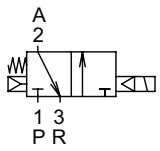


Diagram "F"



MVSC Series Solenoid Valves

Part No.	100230017524005	100230018324002	100230018524001	100230019324003	100230019524002	100246033324004	100246033524003	100246015324005
Mfg. Part No.	MVSC-300-4E2C-AC110-L-NPT	MVSC-300-4E2P-DC24-L-NPT	MVSC-300-4E2P-AC110-L-NPT	MVSC-300-4E2R-DC24-L-NPT	MVSC-300-4E2R-AC110-L-NPT	MVSC-460-3E1-NC-DC24-L-NPT	MVSC-460-3E1-NC-AC110-L-NPT	MVSC-460-4E1-DC24-L-NPT
Price	$109.00	$109.00	$109.00	$109.00	$109.00	$57.00	$60.00	$57.00
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF
Weight (lb)	1.19	1.19	1.19	1.20	1.18	0.78	0.77	0.83
Manufacturer Specs	PDF					PDF		
Valve Type	5-port (4-way)					3-port (3-way)		5-port (4-way)
Positions	3					2		
Pneumatic Diagram	C	D		E		F		A
Operating Voltage	110 VAC	24 VDC	110 VAC	24 VDC	110 VAC	24 VDC	110 VAC	24 VDC
Power Rating	4.4VA	2W	4.4VA	2W	4.4VA	2W	4.4VA	2W
Electrical Connection	11mm DIN style wiring plug							
Valve Configuration	Center closed	Center pressure		Center exhaust		N.C.		N/A
Acting	Double solenoid					Single solenoid spring return		
Inlet Port Size	3/8" FNPT					1/2" FNPT		1/2" FNPT
Outlet Port Size	(2) 3/8" FNPT					1/2" FNPT		(2) 1/2" FNPT
Exhaust	(2) 3/8" FNPT					1/2" FNPT		(2) 1/2" FNPT
Flow (Cv)	1.39	1.39	1.39	1.39	1.39	3.33	3.33	2.78
Media	Filtered air without lubrication; lubrication, if used, must be continuous							
Min. Operating Pressure	44 psi					29 psi		
Max. Operating Pressure	116 psi							
Temperature	23 to 122 °F (-5 to +50 °C)							
Lubrication	ISO VG32 or equivalent							
Life Cycle	10 Million cycles							

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

MVSC - Series Solenoid Valves

Diagram "A"

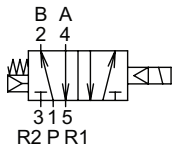


Diagram "B"

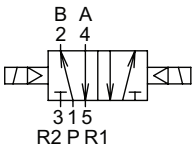


Diagram "C"

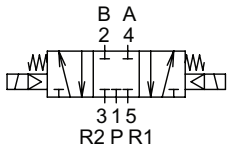


Diagram "D"

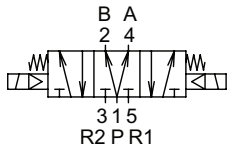


Diagram "E"

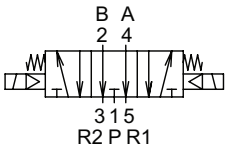
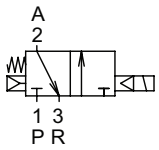


Diagram "F"



MVSC Series Solenoid Valves

Part No.	1002460155240004	1002460163240004	1002460165240003	1002460173240004	1002460175240002	1002460183240001	1002460185240002	1002460193240002
Mfg. Part No.	MVSC-460-4E1-AC110-L-NPT	MVSC-460-4E2-DC24-L-NPT	MVSC-460-4E2-AC110-L-NPT	MVSC-460-4E2C-DC24-L-NPT	MVSC-460-4E2C-AC110-L-NPT	MVSC-460-4E2P-DC24-L-NPT	MVSC-460-4E2P-AC110-L-NPT	MVSC-460-4E2R-DC24-L-NPT
Price	$57.00	$84.00	$84.00	$111.00	$111.00	$115.00	$115.00	$115.00
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF
Weight (lb)	0.82	1.12	1.11	1.26	1.24	1.26	1.25	1.25
Manufacturer Specs	PDF							
Valve Type	5-port (4-way)							
Positions	2			3				
Pneumatic Diagram	A	B		C		D		E
Operating Voltage	110 VAC	24 VDC	110 VAC	24 VDC	110 VAC	24 VDC	110 VAC	24 VDC
Power Rating	4.4VA	2W	4.4VA	2W	4.4VA	2W	4.4VA	2W
Electrical Connection	11mm DIN style wiring plug							
Valve Configuration	N/A			Center closed		Center pressure		Center exhaust
Acting	Single solenoid spring return	Double solenoid						
Inlet Port Size	1/2" FNPT							
Outlet Port Size	(2) 1/2" FNPT							
Exhaust	(2) 1/2" FNPT							
Flow (Cv)	2.78	2.78	2.78	1.67	1.67	1.67	1.67	1.67
Media	Filtered air without lubrication; lubrication, if used, must be continuous							
Min. Operating Pressure	29 psi			44 psi				
Max. Operating Pressure	116 psi							
Temperature	23 to 122 °F (-5 to +50 °C)							
Lubrication	ISO VG32 or equivalent							
Life Cycle	10 Million cycles							

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

MVSC - Valve Manifolds



Part No. 100222093024002

MVSC manifolds fit MVSC valves. Available in 2 to 8 stations with blanking plates sold separately.

Features

- Made from aluminum
- All manifolds include valve mounting screws and gaskets

Screws and gaskets included with manifolds.



Part No. 100246091084001



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

MVSC - Valve Manifolds								
Part No.	*Mfg. Part No.*	*Number of Stations*	*Inlet Port Size*	*Exhaust Port Size*	*Manufacturer Technical Specifications*	*Drawing Link*	*Price*	*Weight (lb)*
100222091024002	*MVSC-220-3B2-NPT*	2	(2) 1/4" FNPT	(2) 1/4" FNPT	PDF	PDF	$17.50	0.45
100222091044002	*MVSC-220-3B4-NPT*	4				PDF	$30.50	0.71
100222091064001	*MVSC-220-3B6-NPT*	6				PDF	$43.00	0.97
100222091084002	*MVSC-220-3B8-NPT*	8				PDF	$56.00	1.25
100222093024002	*MVSC-220-5B2-NPT*	2		(4) 1/4" FNPT		PDF	$12.50	0.44
100222093044002	*MVSC-220-5B4-NPT*	4				PDF	$23.00	0.72
100222093064002	*MVSC-220-5B6-NPT*	6				PDF	$36.00	1.02
100222093084002	*MVSC-220-5B8-NPT*	8				PDF	$48.00	1.31

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

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MVSC - Valve Manifolds

MVSC - Valve Manifolds								
Part No.	*Mfg. Part No.*	*Number of Stations*	*Inlet Port Size*	*Exhaust Port Size*	*Manufacturer Technical Specifications*	*Drawing Link*	*Price*	*Weight (lb)*
100230091024001	*MVSC-300-3B2-NPT*	2	(2) 3/8" FNPT	(2) 3/8" FNPT	PDF	PDF	$19.00	0.68
100230091044001	*MVSC-300-3B4-NPT*	4				PDF	$35.00	1.21
100230091064001	*MVSC-300-3B6-NPT*	6				PDF	$52.00	1.73
100230091084001	*MVSC-300-3B8-NPT*	8				PDF	$66.00	2.26
100030093024002	*MVSC-300-5B2-NPT*	2		(4) 3/8" FNPT		PDF	$17.00	0.54
100030093044001	*MVSC-300-5B4-NPT*	4				PDF	$34.00	0.95
100030093064002	*MVSC-300-5B6-NPT*	6				PDF	$51.00	1.37
100030093084001	*MVSC-300-5B8-NPT*	8				PDF	$68.00	1.78
100246091024002	*MVSC-460-3B2-NPT*	2	(2) 1/2" FNPT	(2) 1/2" FNPT	PDF	PDF	$27.00	0.82
100246091044002	*MVSC-460-3B4-NPT*	4				PDF	$49.00	1.46
100246091064001	*MVSC-460-3B6-NPT*	6				PDF	$71.00	2.10
100246091084001	*MVSC-460-3B8-NPT*	8				PDF	$92.00	2.73
100246093024002	*MVSC-460-5B2-NPT*	2		(4) 1/2" FNPT		PDF	$24.00	0.84
100246093044002	*MVSC-460-5B4-NPT*	4				PDF	$36.00	1.49
100246093064001	*MVSC-460-5B6-NPT*	6				PDF	$52.00	2.19
100246093084001	*MVSC-460-5B8-NPT*	8				PDF	$66.00	2.83

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

MVSC - Accessories



Part No. 100222093000007



Part No. 100246091000002



Part No. MVSE300-5-SK

MVSC - Accessories						
Part No.	*Mfg. Part No.*	*Description*	*Manufacturer Technical Specifications*	*Drawing Link*	*Price*	*Weight (lb)*
100222091000003	*MVSC-220-3P*	Mindman blanking plate, plated steel. For use with MVSC-220-3 series manifolds. Mounting screws included.	PDF	PDF	$2.00	0.04
100222093000007	*MVSC-220-5P*	Mindman blanking plate, plated steel. For use with MVSC-220-5 series manifolds. Mounting screws included.		PDF	$2.00	0.05
100230091000003	*MVSC-300-3P*	Mindman blanking plate, plated steel. For use with MVSC-300-3 series manifolds. Mounting screws included.	PDF	PDF	$2.00	0.07
100030093000005	*MVSC-300-5P*	Mindman blanking plate, plated steel. For use with MVSC-300-5 series manifolds. Mounting screws included.		PDF	$2.00	0.09
100246091000002	*MVSC-460-3P*	Mindman blanking plate, plated steel. For use with MVSC-460-3 series manifolds. Mounting screws included.	PDF	PDF	$2.00	0.07
100246093000004	*MVSC-460-5P*	Mindman blanking plate, plated steel. For use with MVSC-460-5 and MVSE-500-5 series manifolds. Mounting screws included.		PDF	$2.00	0.19
MVSC220-3-SK	*N/A*	Mindman seal kit, replacement. For use with MVSC-220-3 series manifolds. Includes (4) gaskets and (8) screws.	N/A	N/A	$7.75	0.05
MVSC220-5-SK		Mindman seal kit, replacement. For use with MVSC-220-5 series manifolds. Includes (4) gaskets and (8) screws.			$6.25	0.05
MVSC300-3-SK		Mindman seal kit, replacement. For use with MVSC-300-3 series manifolds. Includes (4) gaskets and (8) screws.			$7.75	0.10
MVSC300-5-SK		Mindman seal kit, replacement. For use with MVSC-300-5 series manifolds. Includes (4) gaskets and (8) screws.			$7.75	0.10
MVSC460-3-SK		Mindman seal kit, replacement. For use with MVSC-460-3 series manifolds. Includes (4) gaskets and (8) screws.			$12.50	0.10
MVSC460-5-SK		Mindman seal kit, replacement. For use with MVSC-460-5 series manifolds. Includes (4) gaskets and (8) screws.			$9.50	0.10
MVSE300-5-SK		Mindman seal kit, replacement. For use with MVSE-300-5 series manifolds. Includes (12) O-rings, (8) lock washers and (8) screws.			$6.50	0.05
MVSE500-5-SK		Mindman seal kit, replacement. For use with MVHB-500-5 series manifolds. Includes (4) gaskets and (8) screws.			$9.50	0.11

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

Spare Coils



Part No. 200222000200001

Mindman spare coils fit MVDC and MVSC valves. Coils on 110 VAC valves can be replaced with either AC or DC coils. Coils on 24 VDC valves can only be replaced with DC coils.

Spare Coils

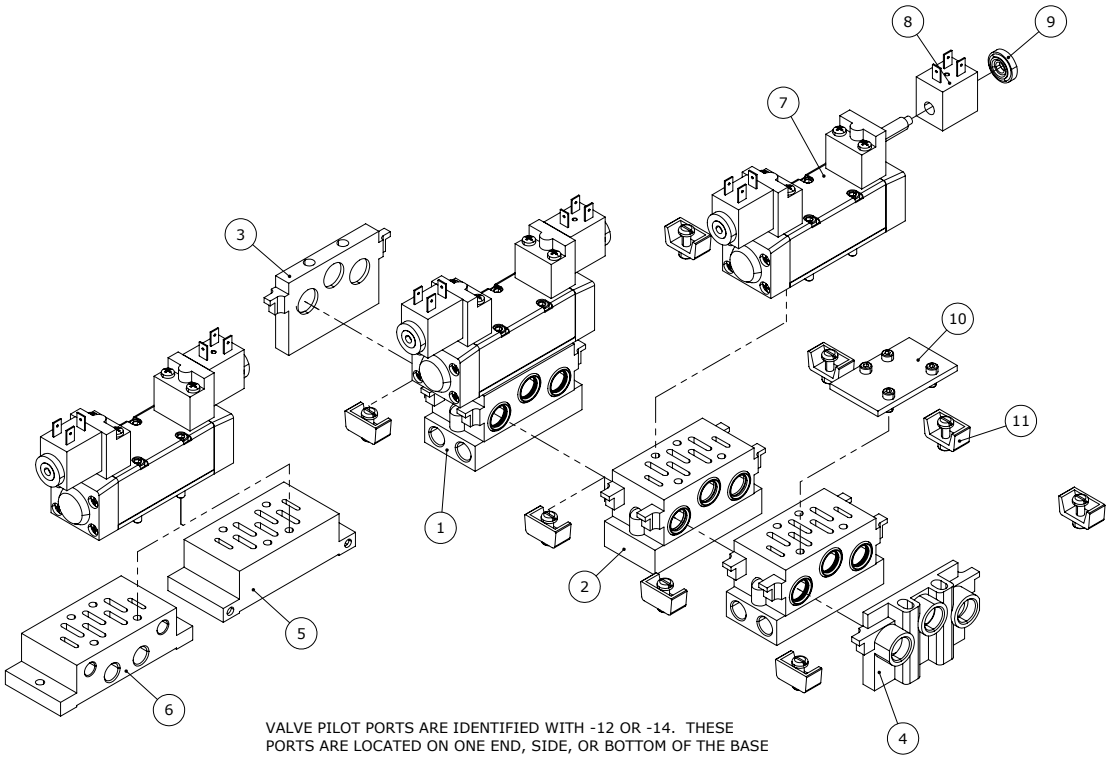
Part No.	Mfg. Part No.	Description	Manufacturer Technical Specifications	Drawing Link	Price	Weight (lb)
200222000200001	N/A	Mindman solenoid coil, 12 VDC, 2.5W, 11mm DIN style wiring plug. For use with MVDC and MVSC series solenoid valves.	PDF	PDF	$9.50	0.13
200222000300001		Mindman solenoid coil, replacement, 24 VDC, 2W, 11mm DIN style wiring plug. For use with MVDC and MVSC series solenoid valves.		PDF	$9.50	0.14
200222000400001		Mindman solenoid coil, 24 VAC, 5.4VA, 11mm DIN style wiring plug. For use with MVDC and MVSC series solenoid valves.		PDF	$9.50	0.14
200222000500001		Mindman solenoid coil, replacement, 110 VAC, 4.4VA, 11mm DIN style wiring plug. For use with MVDC and MVSC series solenoid valves.		PDF	$9.50	0.13

ISO 5599 Solenoid Valves, Bases, Manifolds and Accessories

NITRA ISO 5599 valves and other components are a robust directional control solution that conforms to ISO 5599/1 standard. Components are available in size 1 or size 2 to deliver excellent performance for many industrial pneumatic systems. Valves and bases are interchangeable with other 5599/1 systems from other manufacturers. Bases and manifolds are available in either G-thread (BSPP) or NPT.

ISO 5599 Manifolds/ Bases/Valves	
1	Manifold Side Orientation
2	Manifold Bottom Orientation
3	Manifold Blind End Plate
4	Manifold Inlet
5	Stand Alone Base Bottom Orientation
6	Stand Alone Base Side Orientation
7	Solenoid Valve
8	Solenoid Coil
9	Coil Nut
10	Manifold Blank Plate
11	Manifold Attaching Kit



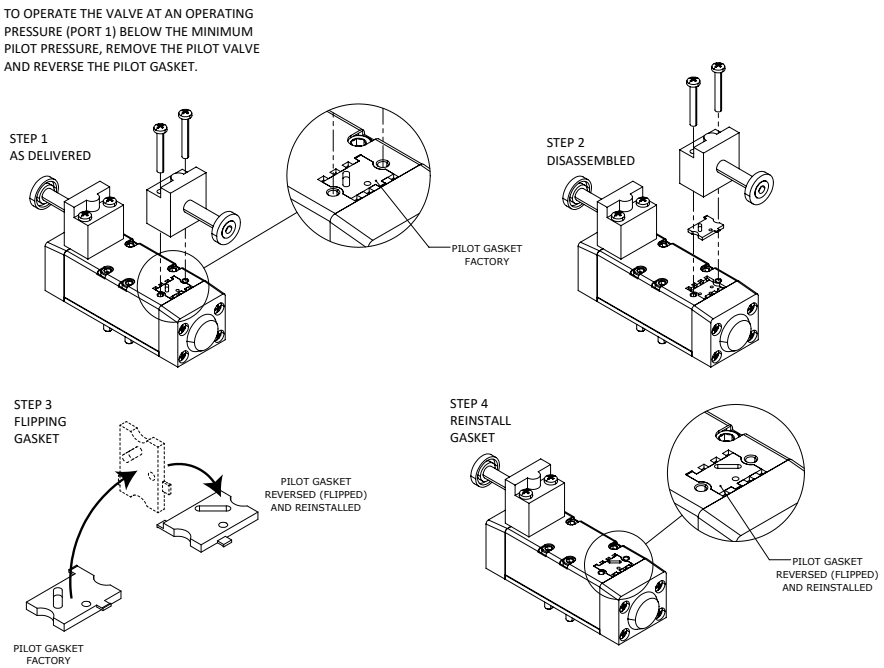


VALVE PILOT PORTS ARE IDENTIFIED WITH -12 OR -14. THESE PORTS ARE LOCATED ON ONE END, SIDE, OR BOTTOM OF THE BASE

NITRA ISO 5599 manifold components are easily assembled to meet your needs:

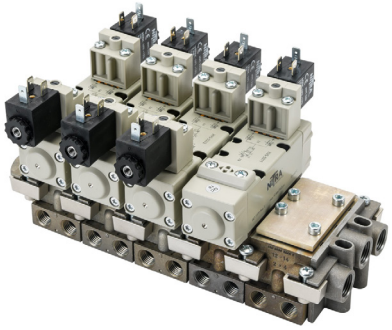
- Determine if bottom or side ports are needed.
- Join manifold sections with included clamps.
- Add inlet plate(s) and blind end plate (if needed).
- Install valves on the manifold sections. Blanking plates are available for unused stations.
- Install solenoid coils in desired voltage.
- Connect solenoids to control system and plumb as required.

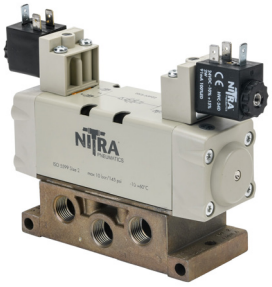
TO OPERATE THE VALVE AT AN OPERATING PRESSURE (PORT 1) BELOW THE MINIMUM PILOT PRESSURE, REMOVE THE PILOT VALVE AND REVERSE THE PILOT GASKET.



NITRA PNEUMATICS

ISO 5599 Solenoid Valves





Assembly examples show assembled ISO 5599 valves, bases and manifolds. (each sold separately)

Features

- ISO 5599/1 sizes 1 and 2 interchange with all other brands meeting ISO 5599/1
- 5-port / 2-position and 5/port / 3-position valves available
- Order stand-alone bases or manifolds separately
- Solenoid coils sold separately in 12 & 24 VDC and 24, 110 & 220 VAC



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





ISO 5599 Solenoid Valves										
Model	***HVS-5211***	***HVS-5212***	***HVS-53C12***	***HVS-53E12***	***HVS-53P12***	***HVS-5221***	***HVS-5222***	***HVS-53C22***	***HVS-53E22***	***HVS-53P22***
Price	$100.00	$130.00	$156.00	$156.00	$156.00	$154.00	$181.00	$190.00	$190.00	$190.00
Drawing	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF
Diagram	A	B	C	D	E	A	B	C	D	E
Weight (lbs.)	0.76	0.86	0.82	0.82	0.82	1.58	1.63	1.59	1.59	1.59
Fluid	Filtered air without lubrication; lubrication, if used, must be continuous									
ISO Size	1					2				
Operating Pressure	Vacuum to 10 bar (vacuum to 145 psi)									
Min. Pilot Pressure	2.5 bar (36 psi)	1 bar (15 psi)				2.5 bar (36 psi)	1 bar (15 psi)			
Operating Temp. Range	-10 to +60 °C (14 to 140 °F)									
Nominal Diameter	7.5 mm					12 mm				
Sonic Conductance (C)	250 Nl/min • bar (36.5 scfm/psi)					657.14 Nl/min • bar (95.9 scfm/psi)				
Critical Pressure Ratio (b)	0.36					0.25				
Flow Rate at 6 bar @ delta-P 0.5 bar (87 psi @ delta-P 7 psi)	700 Nl/min (24.7 scfm)					1800 Nl/min (63.6 scfm)				
Flow Rate at 6 bar @ delta-P 1 bar (87 psi @ delta-P 15 psi)	1100 Nl/min (38.8 scfm)					2700 Nl/min (95.3 scfm)				
Min Response ON/OFF	24/50 ms	20/20 ms				39/60 ms	25/25 ms			
Installation	Any	Vertical not recommended with vibration				Any	Vertical not recommended with vibration			
Assembly	On single and manifold bases according to ISO 5599/1									
Manual Override	Locking									
Coils	22 mm Form B in Accordance with EN 175301-803-B (11 mm pin width)									
Max. Coil Nut Torque	1 Nm / 9 lb-in									
Approvals	N/A									

ISO 5599 Solenoid Valves

ISO 5599 Valve Diagrams

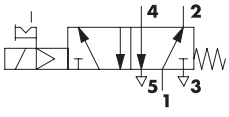


Diagram "A"

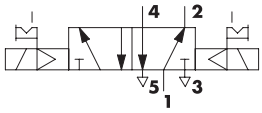


Diagram "B"

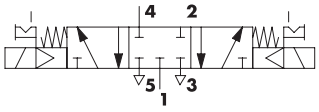


Diagram "C"

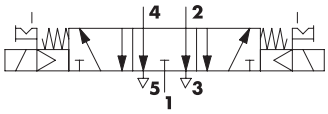


Diagram "D"

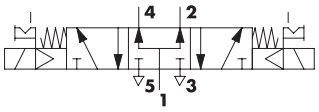
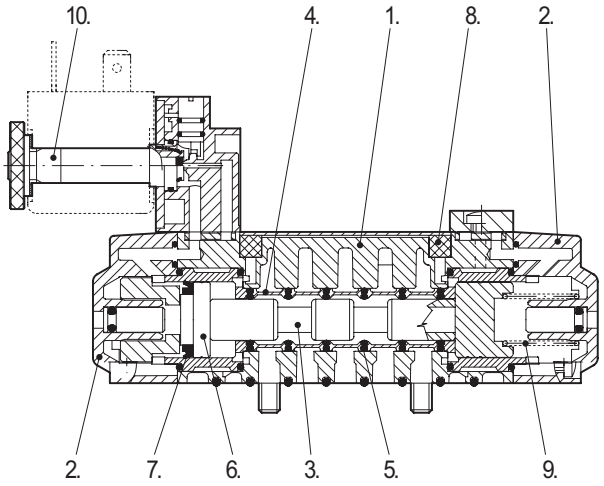


Diagram "E"

ISO 5599 Valve Components

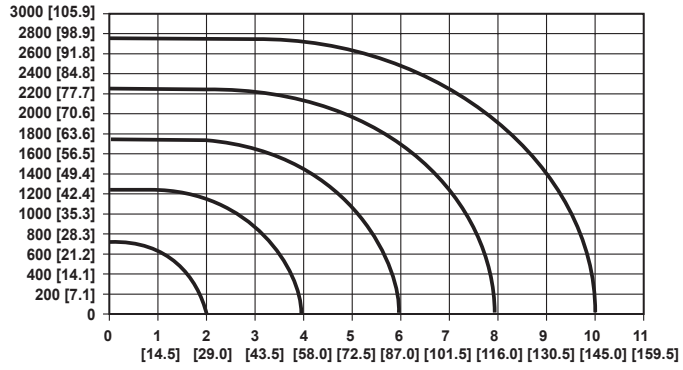
1. VALVE BODY: Aluminium
2. END CAP: Hostaform®
3. SPOOL: chemically nickel-plated aluminium
4. DISTANCE PLATES: plastic
5. GASKETS: NBR (Buna-N)
6. PISTONS: Hostaform®
7. PISTON GASKET: NBR (Buna-N)
8. FILTER: sintered bronze
9. SPRINGS: special steel
10. OPERATOR: Brass pipe – Stainless steel core



ISO 5599 Valve Flow Charts

ISO 1

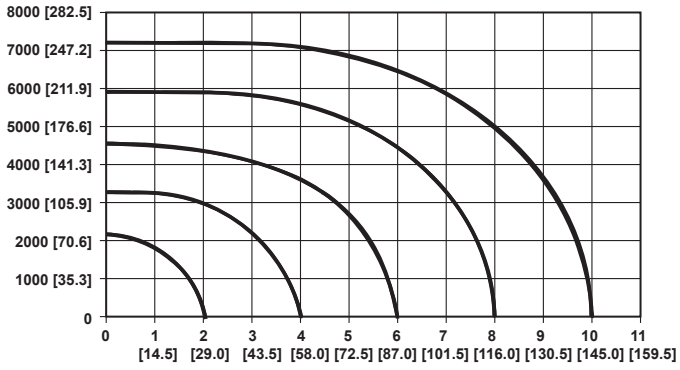
Flow rates Nl/min [scfm]



Pressure bar [psi]

ISO 2

Flow rates Nl/min [scfm]



Pressure bar [psi]

NITRA PNEUMATICS

ISO 5599 Solenoid Valve Bases

NITRA ISO 5599 Series Valve Bases allow mounting a single ISO 5599/1 solenoid valve. Bases will fit other brands of ISO 5599/1 valves.

Features

- Stand-alone bases compatible with all ISO 5599/1 valves in sizes 1 and 2
- Available with side or bottom ports
- Available port threads in G-thread (BSPP) or NPT
- Aluminum alloy



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

2 YEAR WARRANTY

45-day Money-Back Guarantee 45 day

ISO 5599 Series Valve Bases								
Item Photo	*Part No.*	*Pressure*	*Inlet(s) / Outlet(s)*	*Orientation*	*Usage*	*Weight (lbs.)*	*Price*	*Drawing Link*
	HSB-1SG	145 psi (10 bar) maximum operating pressure	G1/4 female BSPP	Side	ISO 5599/1 size 1 solenoid valves	0.36	$16.50	PDF
	HSB-1SN		1/4 in female NPT			0.36	$16.50	PDF
	HSB-1BG		G1/4 female BSPP	Bottom		0.43	$16.00	PDF
	HSB-1BN		1/4 in female NPT			0.43	$16.00	PDF
	HSB-2SG		G3/8 female BSPP	Side	ISO 5599/1 size 2 solenoid valves	0.57	$27.00	PDF
	HSB-2SN		3/8 in female NPT			0.57	$27.00	PDF
	HSB-2BG		G3/8 female BSPP	Bottom		0.67	$23.00	PDF
	HSB-2BN		3/8 in female NPT			0.67	$23.00	PDF

ISO 5599 Solenoid Valve Manifolds

NITRA ISO 5599 Series pneumatic valve manifolds can be joined with included fasteners to build valve islands. These manifolds will fit other brands of ISO 5599/1 valves.

Features

- Manifolds compatible with all ISO 5599/1 valves
- Available with side or bottom ports
- Available port threads in G-thread (BSPP) or NPT
- Aluminum alloy



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





ISO 5599 Series Valve Size 1 Manifolds

Item Photo	Part No.	Pressure	Inlet(s) / Outlet(s)	Orientation	Usage	Weight (lbs.)	Price	Drawing Link
	HM-1G	145 psi (10 bar) maximum operating pressure	G3/8 female BSPP	N/A	ISO 5599/1 size 1 solenoid valves	0.28	$13.00	PDF
	HM-1N		3/8 in female NPT			0.28	$13.00	PDF
	HM-1SG		G1/4 female BSPP	Side		0.29	$30.00	PDF
	HM-1SN		1/4 in female NPT			0.29	$30.00	PDF
	HM-1BG		G1/4 female BSPP	Bottom		0.69	$30.00	PDF
	HM-1BN		1/4 in female NPT			0.69	$30.00	PDF

ISO 5599 Series Valve Size 1 Manifold Accessories

Item Photo	Part No.	Description	Weight (lbs.)	Price	Drawing Link
	HM-1B	NITRA blind end, aluminum alloy. For use with ISO 5599/1 size 1 manifolds.	0.17	$6.75	PDF
	HM-1BP	NITRA blanking plate, aluminum alloy. For use with ISO 5599/1 size 1 manifolds. Assembly screws and seal included.	0.10	$6.75	PDF
	HM-1A	NITRA manifold attaching kit, aluminum alloy. For use with ISO 5599/1 size 1 solenoid valves. Includes (2) assembly clamps and (3) o-rings.	0.10	$3.50	PDF

ISO 5599 Solenoid Valve Manifolds

ISO 5599 Series Valve Size 2 Manifolds								
Item Photo	*Part No.*	*Pressure*	*Inlet(s) / Outlet(s)*	*Orientation*	*Usage*	*Weight (lbs.)*	*Price*	*Drawing Link*
	HM-2G	145 psi (10 bar) maximum operating pressure	G1/2 female BSPP	N/A	ISO 5599/1 size 2 solenoid valves	0.45	$16.00	PDF
	HM-2N		1/2 in female NPT			0.45	$16.00	PDF
	HM-2SG		G3/8 female BSPP	Side		0.69	$37.00	PDF
	HM-2SN		3/8 in female NPT			0.69	$37.00	PDF
	HM-2BG		3/8 in female NPT	Bottom		1.11	$37.00	PDF
	HM-2BN		3/8 in female NPT			1.11	$37.00	PDF

ISO 5599 Series Valve Size 2 Manifold Accessories					
Item Photo	*Part No.*	*Description*	*Weight (lbs.)*	*Price*	*Drawing Link*
	HM-2B	NITRA blind end, aluminum alloy. For use with ISO 5599/1 size 2 manifolds.	0.29	$10.50	PDF
	HM-2BP	NITRA blanking plate, aluminum alloy. For use with ISO 5599/1 size 2 manifolds. Assembly screws and seal included.	0.21	$8.50	PDF
	HM-2A	NITRA manifold attaching kit, aluminum alloy. For use with ISO 5599/1 size 2 solenoid valves. Includes (2) assembly clamps and (3) o-rings.	0.10	$4.00	PDF

ISO 5599 Valve Coils

NITRA ISO 5599 Series pneumatic valve coils fit NITRA ISO 5599/1 solenoid valves.

Features

- Voltage tolerance: –10% to + 15%
- Insulation class: F155
- IP65 EN60529 protection with connector
- Coil temperature 100% ED: 55 °C at 20 °C – ambient temperature
- In accordance to Atex 2014/34/EU rule, group 2, category 3 GD
- Coils have 11 mm DIN style connector





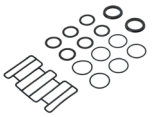
See www.AutomationDirect.com for a wide variety of fitting and cable options



CE

ISO 5599 Series Valve Coils					
Item Photo	*Part No.*	*Description*	*Weight (lbs.)*	*Price*	*Drawing Link*
	***HVC-12D***	NITRA solenoid coil, 12 VDC, 2W. For use with HVS series solenoid valves.	0.1	$12.50	PDF
	***HVC-24D***	NITRA solenoid coil, 24 VDC, 2W. For use with HVS series solenoid valves.	0.1	$12.50	PDF
	***HVC-24A***	NITRA solenoid coil, 24 VAC, 3.5VA. For use with HVS series solenoid valves.	0.1	$12.50	PDF
	***HVC-110A***	NITRA solenoid coil, 110 VAC, 3.5VA. For use with HVS series solenoid valves.	0.1	$12.50	PDF
	***HVC-220A***	NITRA solenoid coil, 220 VAC, 3.5VA. For use with HVS series solenoid valves.	0.1	$12.50	PDF

ISO 5599 Valve Accessories

ISO 5599 Series Valve Accessories				
Item Photo	*Part No.*	*Description*	*Weight (lbs.)*	*Price*
	***HS-NUT***	NITRA solenoid coil nut, replacement. For use with HVS series solenoid valves.	0.05	$5.00
	***HVS-1SEAL***	NITRA seal kit, replacement. For use with ISO 5599/1 size 1 solenoid valves. Includes o-rings, lip seals and valve bottom gasket.	0.05	$4.50
	***HVS-2SEAL***	NITRA seal kit, replacement. For use with ISO 5599/1 size 2 solenoid valves. Includes o-rings, lip seals and valve bottom gasket.	0.05	$6.75

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 230 psi. 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
- 24 VDC, 24 VAC, or 120 VAC solenoids
- DIN style wiring connector





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

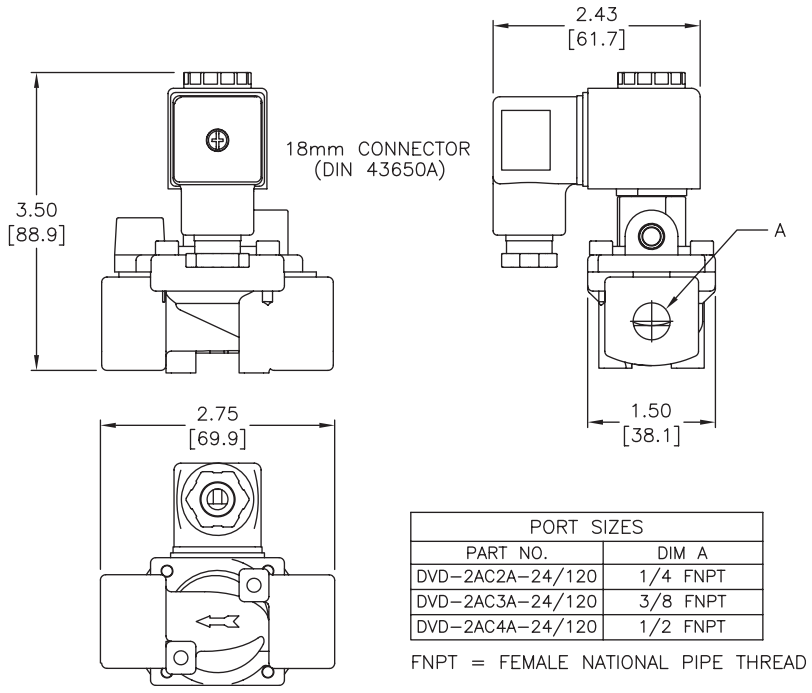
DVD-2A Series Solenoid Valve Specifications

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	$93.00	$93.00	$93.00	$93.00	$93.00	$93.00	$93.00	$93.00	$93.00
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]	1–160 psi [0–11.0 bar]	0–230 psi [0–15.9 bar]	1–180 psi [0–12.4 bar]	1–160 psi [0–11.0 bar]	0–230 psi [0–15.9 bar]	1–180 psi [0–12.4 bar]	1–160 psi [0–11.0 bar]	0–230 psi [0–15.9 bar]
Voltage (±10%)	24 VDC	24 VAC 50/60 Hz	120 VAC 50/60 Hz	24 VDC	24 VAC 50/60 Hz	120 VAC 50/60 Hz	24 VDC	24 VAC 50/60 Hz	120 VAC 50/60 Hz
Inrush AC	–	10.5 VA		–	10.5 VA		–	10.5 VA	
Power Consumption	10 W	8 VA		10 W	8 VA		10 W	8 VA	
Max Freq	12.5 Hz								
Insulation	Class F (continuous duty)								
Min Response	20–80 ms complete cycle								
Temperature	Max fluid 194 °F (90 °C); Ambient 14 to 122 °F (-10 to +50 °C)								
Lubrication	Not required								
Protection	NEMA Type 4								
Connection	18 mm DIN terminal; Cable OD 0.315" to 0.394", 14 AWG max								
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.	$10.50	0.1



Part No. DVD-1VSEAL

NITRA PNEUMATICS

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
- 24 VDC, 24 VAC, or 120 VAC 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	$58.00	$58.00	$58.00	$58.00	$58.00	$58.00	$58.00	$58.00	$58.00	$122.00	$122.00	$122.00	$122.00
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%)	24 VDC	24 VAC 50/60 Hz	120 VAC 50/60 Hz	24 VDC	24 VAC 50/60 Hz	120 VAC 50/60 Hz	24 VDC	24 VAC 50/60 Hz	120 VAC 50/60 Hz	24 VDC	120 VAC 50/60 Hz	24 VDC	120 VAC 50/60 Hz
Inrush AC	–	10 VA		–	10 VA		–	10 VA		–	8 VA	–	8 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 to 122 °F [-10 to +50 °C]												
Lubrication	Not required												
Protection	NEMA Type 4												
Connection	11 mm DIN terminal									18 mm 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												

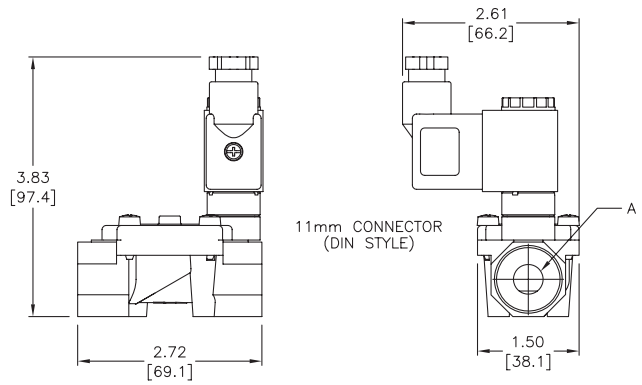
** Requires minimum sealing pressure*

Process Pipeline Solenoid Valves
DVD-2B Series

Dimensions

inches [mm]

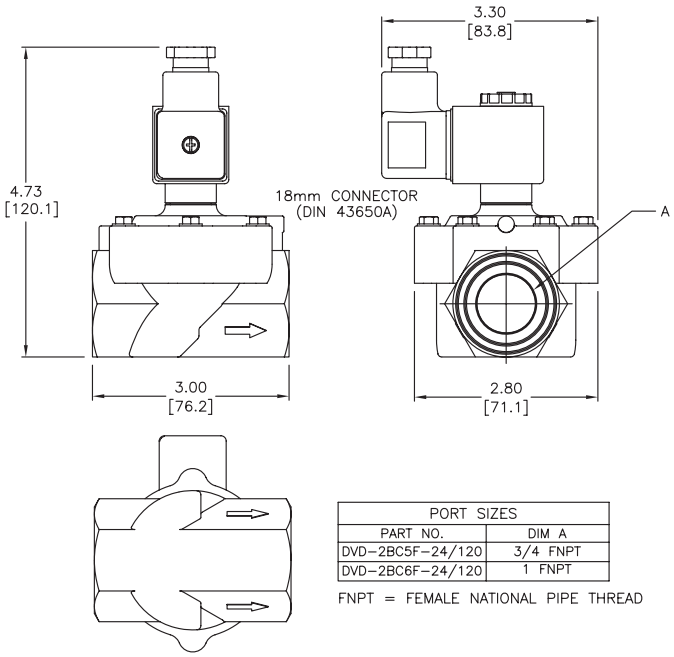
DVD-2BCXX



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.	$10.50	0.1
DVD-3VSEAL	Seal kit, replacement, Viton, for DVD-2BC5F or DVD-2BC6F series NITRA pneumatic solenoid valves. Includes one Viton diaphragm.	$29.00	0.6



Part No. DVD-2VSEAL



Part No. DVD-3VSEAL

NITRA PNEUMATICS

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



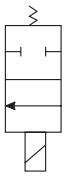
Part No. DVP-2CC1C-24A

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.

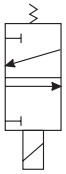
Features

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

Valve Symbols



2-way, 2-pos, NC



3-way, 2-pos, NC





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

CE RoHS 2002/95/EC

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

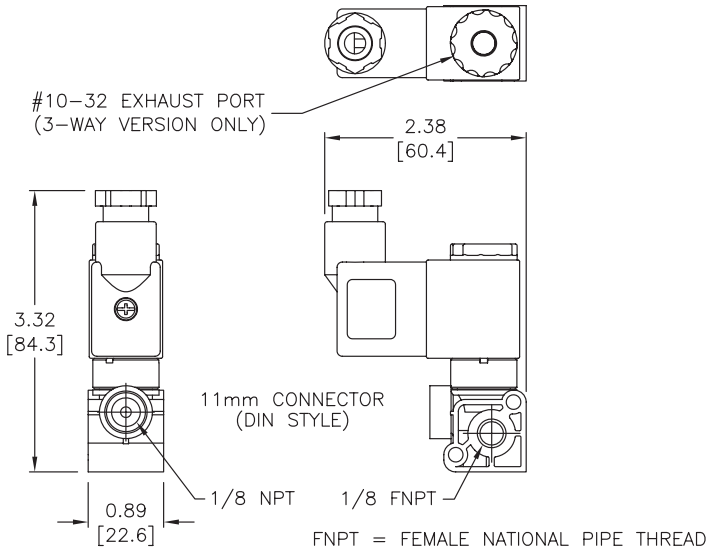
Model	*DVP-2CC1C-24D*	*DVP-2CC1C-24A*	*DVP-2CC1C-120A*	*DVP-3CC1C-24D*	*DVP-3CC1C-24A*	*DVP-3CC1C-120A*
Price	$29.50	$29.50	$29.50	$29.50	$29.50	$29.50
Weight (lbs)	0.3	0.3	0.3	0.3	0.3	0.3
Valve Type	2-way, 2-position			3-way, 2-position		
Acting	Stackable poppet valve, normally closed, spring return					
Port Size	1/8" FNPT					
Orifice Size	0.6" [1.5 mm]					
CV	0.08			0.08 (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%)	24 VDC	24 VAC 50/60 Hz	120 VAC 50/60 Hz	24 VDC	24 VAC 50/60 Hz	120 VAC 50/60 Hz
Inrush AC	–	10 VA		–	10 VA	
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 to 122 °F [-10 to +50 °C]					
Lubrication	Not required					
Protection	NEMA Type 4					
Connection	11 mm 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

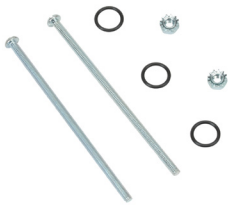
inches [mm]



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.	$5.75	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.	$7.75	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.	$9.50	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.	$11.50	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.	$14.00	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
- 24 VDC, 24 VAC or 120 VAC solenoids
- DIN style wiring connectors

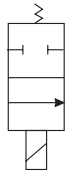
CE RoHS 2002/95/EC



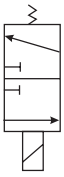
See www.AutomationDirect.com for a wide variety of fitting and cable options

45-day Money-Back Guarantee 45 day

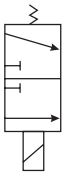
Valve Symbols



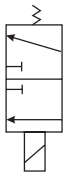
2-way, 2-pos, NC



3-way, 2-pos, NC



3-way, 2-pos, Mixing



3-way, 2-pos, Diverting

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

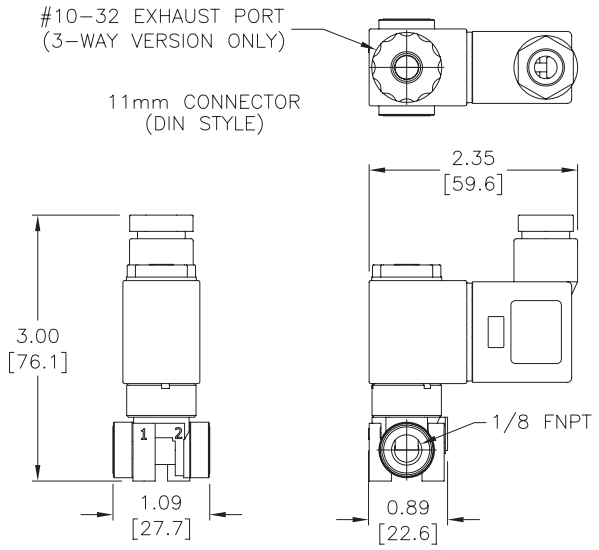
Model	*DVP-2BC1C-24D*	*DVP-2BC1C-24A*	*DVP-2BC1C-120A*	*DVP-3BC1C-24D*	*DVP-3BC1C-24A*	*DVP-3BC1C-120A*
Price	$29.50	$29.50	$29.50	$31.00	$31.00	$31.00
Weight (lbs)	0.3	0.3	0.3	0.3	0.3	0.3
Valve Type	2-way, 2-position			3-way, 2-position		
Acting	Poppet valve, normally closed, spring return			Poppet valve, normally closed, spring return		
Port Size	1/8" FNPT					
Orifice Size	0.059" [1.5 mm]					
Cv	0.08			0.08 (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%)	24 VDC	24 VAC 50/60 Hz	120 VAC 50/60 Hz	24 VDC	24 VAC 50/60 Hz	120 VAC 50/60 Hz
Inrush AC	–	10 VA		–	10 VA	
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 to 122 °F [-10 to +50 °C]					
Lubrication	Not Required					
Protection	NEMA Type 4					
Connection	11 mm 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



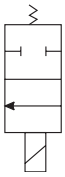
Part No. DVP-2DC1D-24D

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 24 VDC, 24 VAC or 120 VAC 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
- 24 VDC, 24 VAC or 120 VAC 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

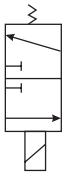
Model	*DVP-2DC1D-24D*	*DVP-2DC1D-24A*	*DVP-2DC1D-120A*	*DVP-2DC2E-24D*	*DVP-2DC2E-24A*	*DVP-2DC2E-120A*	*DVP-2DC3F-24D*	*DVP-2DC3F-24A*	*DVP-2DC3F-120A*
Price	$53.00	$53.00	$53.00	$53.00	$53.00	$53.00	$53.00	$53.00	$53.00
Weight (lbs)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Valve Type	2-way, 2-position								
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]						0–150 psi [0–10.3 bar]		0–250 psi [0–17.2 bar]
Voltage (±10%)	24 VDC	24 VAC 50/60 Hz	120 VAC 50/60 Hz	24 VDC	24 VAC 50/60 Hz	120 VAC 50/60 Hz	24 VDC	24 VAC 50/60 Hz	120 VAC 50/60 Hz
Inrush AC	–	26 VA		–	26 VA		–	26 VA	
Power Consumption	10W	11.5 VA		10W	11.5 VA		10W	11.5 VA	
Max Freq	25 Hz								
Insulation	Class F (continuous duty)								
Min Response	16–40 ms								
Temperature	14 to 122 °F [-10 to +50 °C]								
Lubrication	Not Required								
Protection	NEMA Type 4								
Connection	18 mm 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.*

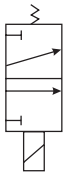
NITRA PNEUMATICS

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

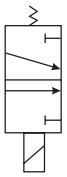
Valve Symbols



3-way, 2-pos, NC



3-way, 2-pos, Mixing



3-way, 2-pos, Diverting

DVP-3D Series Solenoid Valve Specifications

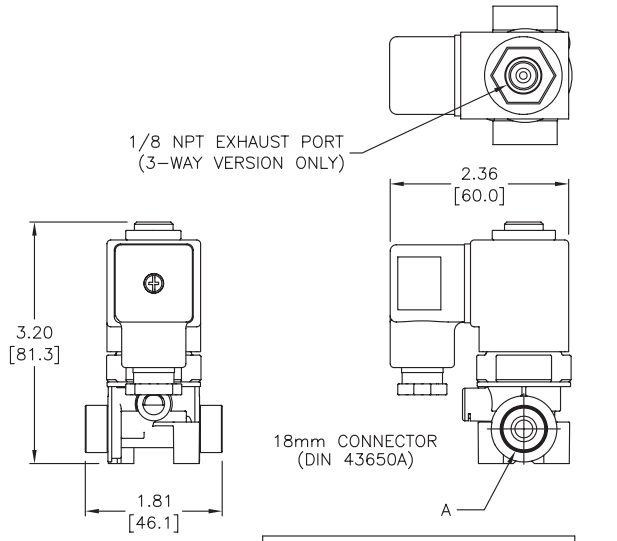
Model	DVP-3DC1D-24D	DVP-3DC1D-24A	DVP-3DC1D-120A	DVP-3DC2E-24D	DVP-3DC2E-24A	DVP-3DC2E-120A	DVP-3DC3F-24D	DVP-3DC3F-24A	DVP-3DC3F-120A
Price	$53.00	$53.00	$53.00	$53.00	$53.00	$53.00	$53.00	$53.00	$53.00
Weight (lbs)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Valve Type	3-way, 2-position								
Acting	Poppet 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]			1–120 psi [0–8.3 bar]		1–150 psi [0–10.3 bar]	1–82 psi [0–5.7 bar]		1–90 psi [0–6.2 bar]
Voltage (±10%)	24 VDC	24 VAC 50/60 Hz	120 VAC 50/60 Hz	24 VDC	24 VAC 50/60 Hz	120 VAC 50/60 Hz	24 VDC	24 VAC 50/60 Hz	120 VAC 50/60 Hz
Inrush AC	–	26 VA		–	26 VA		–	26 VA	
Power Consumption	10 W	11.5 VA		10 W	11.5 VA		10 W	11.5 VA	
Max Freq	25Hz								
Insulation	Class F (continuous duty)								
Min Response	16–40 ms								
Temperature	14 to 122 °F [-10 to +50 °C]								
Lubrication	Not Required								
Protection	NEMA Type 4								
Connection	18 mm 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.

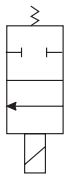
NITRA PNEUMATICS

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 24 VDC, 24 VAC or 120 VAC are available.

Features

- 2-way media separated diaphragm style valve
- 1/8 or 1/4" FNPT ports
- 2-position, normally closed, spring return
- 24 VDC, 24 VAC or 120 VAC 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	$58.00	$58.00	$58.00	$93.00	$93.00	$93.00	$93.00	$93.00	$93.00
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 120 psi [-0.5 to 8.3 bar]	15" Hg (mercury) to 120 psi [-0.5 to 8.3 bar]		15" Hg (mercury) to 45 psi [-0.5 to 3.1 bar]	15" Hg (mercury) to 45 psi [-0.5 to 3.1 bar]	15" Hg (mercury) to 55 psi [-0.5 to 3.8 bar]
Maximum Allowable Back Pressure	20psi regardless of voltage								
Voltage (±10%)	24 VDC	24 VAC 50/60 Hz	120 VAC 50/60 Hz	24 VDC	24 VAC 50/60 Hz	120 VAC 50/60 Hz	24 VDC	24 VAC 50/60 Hz	120 VAC 50/60 Hz
Inrush AC	–	10 VA		–	10.5 VA		–	26 VA	
Power Consumption	6.5 W	8.5 VA		10 W	9 VA		10 W	9 VA	
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 to 131 °F [-10 to +55 °C]			14 to 122 °F [-10 to +50 °C]					
Lubrication	Not required								
Protection	NEMA Type 4								
Connection	11 mm DIN terminal			18 mm DIN terminal					
Construction	Glass filled nylon body; Viton seals; 302 stainless steel inlet strainer								
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	$93.00	$93.00	$93.00	$93.00	$93.00	$93.00
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 120 psi [0.04–8.3 bar]	15" vacuum to 120 psi [0.04–8.3 bar]		15" vacuum to 45 psi [0.04–3.1 bar]	15" vacuum to 55 psi [0.04–3.8 bar]	15" vacuum to 45 psi [0.04–3.1 bar]
Maximum Allowable Back Pressure	20psi regardless of voltage					
Voltage (±10%)	24 VDC	24 VAC 50/60 Hz	120 VAC 50/60 Hz	24 VDC	24 VAC 50/60 Hz	120 VAC 50/60 Hz
Inrush AC	–	26 VA		–	26 VA	
Power Consumption	10 W	11.5 VA		10 W	11.5 VA	
Max Freq	38.5 Hz					
Insulation	Class F (continuous duty)					
Min Response	18–26 ms complete cycle					
Temperature	14 to 122 °F [-10 to +50 °C]					
Lubrication	Not required					
Protection	NEMA Type 4					
Connection	18 mm DIN terminal					
Construction	Glass filled nylon body; Viton seals; 302 stainless steel inlet strainer					
Life Cycle	10 million					
Agency Approvals	CE					

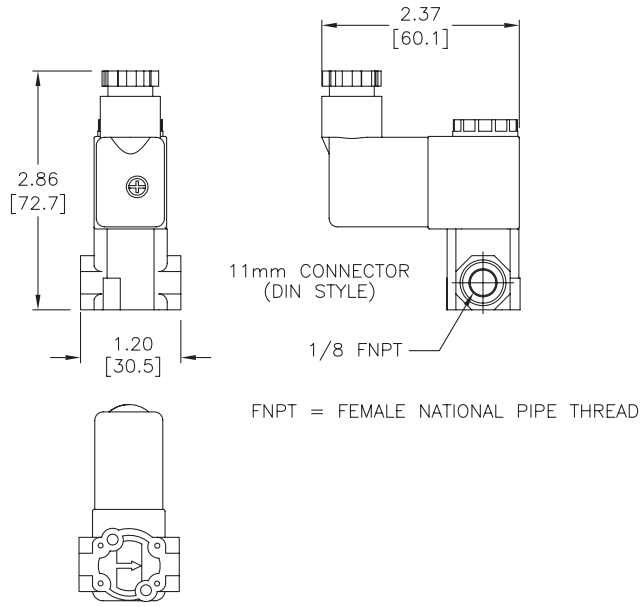
** Check the chemical compatibility of the valve materials with the process media being used.*

Process Pipeline Solenoid Valves
DVM-2B Series

Dimensions

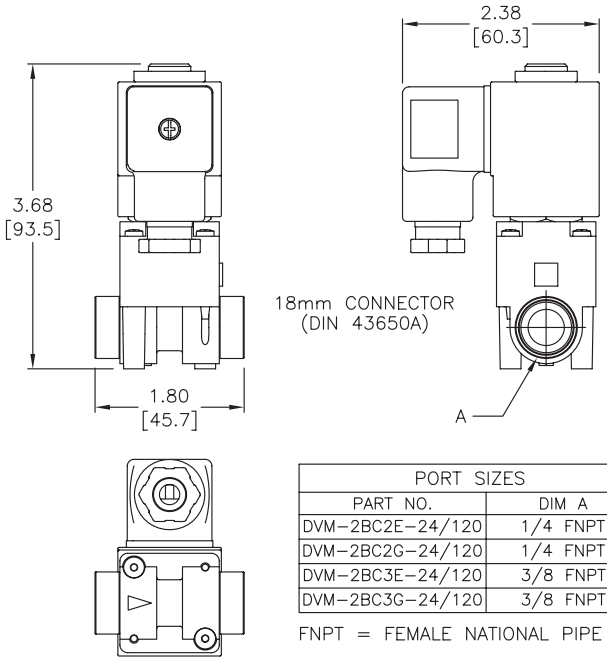
inches [mm]

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



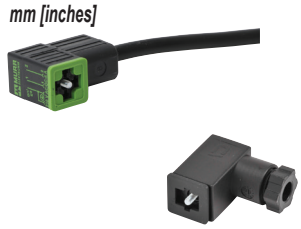
These high quality connectors and over-molded cables help reduce wiring time. The lower voltage models, 24 V or 110 V AC/DC, include built-in surge suppression, Yellow LED indicator and are rated for connecting with
electronics. The 230 V AC/DC models are rated for straight wired products. All models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

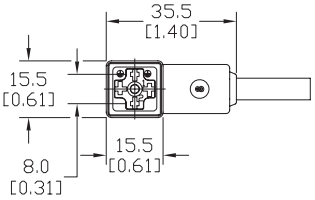
Features

- 8 mm, 9.4 mm, 10 mm, 11 mm and 18 mm square DIN styles
- Fits most popular solenoid valves and sensors
- Suppression and LED indication available in 24 V or 110 V 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

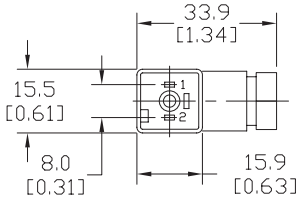
Dimensions shown mm [inches]





Height = 25mm [0.98in]

Connector with Cable



Height = 26mm [1.02]

Field Wireable Connector

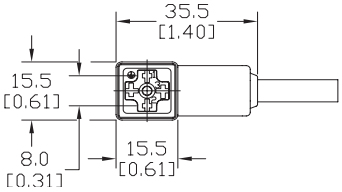
8mm (3-pole) Connectors (per DIN 43650 Form C)												
Part No.	*Price*	*Voltage (AC/DC)*	*Current Rating*	*IP Rating*	*Wire Size*	*Cable Dia. (in.)*	*LED*	*Surge Protection*	*Wiring Figure*	*Screw Size/ Torque*	*Weight (lbs)*	*Agency Approval*
SC8-LS24-3	$17.50	24 ±20%	max 4 A	67	18 AWG	0.23	yes	zener diode (D-Z DO-15 47V 2 W)	1	m2.5-0.45 x 25 mm / 0.4 Nm (3.5 in lb)	0.40	CSA (080128-0-000)
SC8-LS24-5	$21.50										0.65	
SC8-LS110-3	$21.00	110 ±10%						zener diode (D-Z DO-41 ZY200 2 W)	7		0.41	
SC8-LS110-5	$25.00										0.63	
SC8-3	$14.00	230	max 6 A	67	18 AWG	0.23	no	none	2	m2.5-0.45 x 25 mm / 0.5 Nm (4.4 in lb)	0.39	none
SC8-0	$9.25			65	Solid 12 AWG Stranded 14 AWG w/Ferrule 16 AWG	field wireable gland size 0.20 to 0.24			9		0.10	
SC8-1	$18.00			67	18 AWG	0.23			2		0.10	
SC8-5	$20.50										0.68	

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	$27.00	230	max 6 A	67	18 AWG	0.26	yes	none	8	m3-0.5 x 42 mm/ 0.5 Nm (4.4 in lb)	0.80	CSA (080128-0-000)

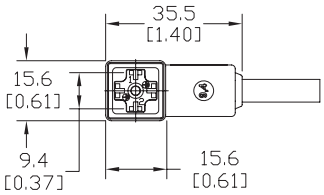
Last numeric digit in part number denotes cable length in meters, a 0 indicates field termination.

Solenoid Valve Cables and Connectors

9.4mm Connectors

Dimensions shown
mm [inches]





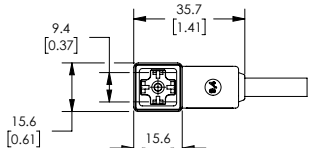
Height = 25mm [0.98in]
Connector with Cable

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 (lb)*	*Agency Approval*
SC9-LS24-3	$17.50	24 ±20%	max 4A	67	18 AWG	0.23	Yes	zener diode (D-Z DO-15 47V 2 W)	1	m3-0.5 x 26mm / 0.4 N·m [3.5 in·lb]	0.40	CSA (080128-0-000)
SC9-LS24-5	$21.50										0.64	
SC9-LS110-3	$21.00	110 ±10%						zener diode (D-Z DO-41 ZY200 2 W)	7		0.40	
SC9-LS110-5	$25.00										0.64	
SC9-3	$14.00	230	max 6A				No	None	2	m3-0.5 x 26mm / 0.5·Nm [4.4 in·lb]	0.40	none
SC9-5	$20.50										0.64	

9.4mm Connectors

Dimensions shown
mm [inches]





Height = 25mm [0.98in]
Connector with Cable

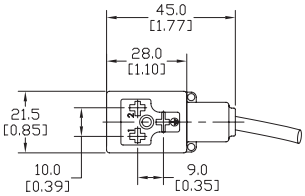
9.4mm (4-pole) Connectors (DIN Style, Form C Industrial)													
Part No.	*Price*	*Voltage (AC/DC)*	*Current Rating*	*IP Rating*	*Wire Size*	*Cable Dia.*	*Cable Length*	*LED*	*Surge Protection*	*Wiring Figure*	*Screw Size/ Torque*	*Weight (lb)*	*Agency Approval*
7231-94141-6370300	$21.50	230 VAC/ VDC	max 6A	IP67	18 AWG	6.2—6.8 mm	9.8ft/3m	No	None	8	m3–0.5 x 26mm 0.4 N·m [3.5 in·lb]	0.45	CSA (080128-0-000)
7000-94141-6270300	$23.00											0.50	
7231-94141-6370500	$27.50						16.4ft/5m					0.70	
7000-94141-6270500	$30.00											0.79	

Solenoid Valve Cables and Connectors

10mm Connectors

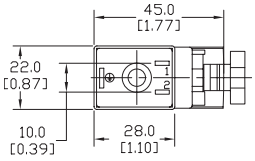
Dimensions shown
mm [inches]





Height = 30mm [1.18in]

Connector with Cable



Height = 41mm [1.61in]

Field Wireable Connector

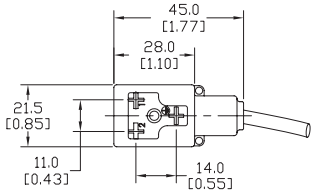
10mm (3-pole) Connectors (per DIN 43650 Form B)												
Part No.	*Price*	*Voltage (AC/DC)*	*Current Rating*	*IP Rating*	*Wire Size*	*Cable Dia. (in.)*	*LED*	*Surge Protection*	*Wiring Figure*	*Screw Size/Torque*	*Weight (lbs)*	*Agency Approval*
SC10-LS24-3	$17.50	24 ±20%	max 4 A	67	18 AWG	0.23	yes	zener diode (D-Z DO-15 47V 2 W)	10	m3-0.5 x 30 mm / 0.4 Nm (3.5 in lb)	0.43	CSA (080128-0-000)
SC10-LS24-5	$21.50										0.68	
SC10-LS110-3	$21.00	110 ±10%	max 4 A					zener diode (D-Z DO-41 ZY200 2 W)	6		0.43	
SC10-LS110-5	$25.00										0.68	
SC10-3	$14.00	230	max 10 A				no	none	3		0.43	
SC10-5	$20.50										0.68	
SC10-LS24-0	$12.50	24 ±20%	max 4 A	65	Solid 12 AWG Stranded 14 AWG w/Ferrule 16 AWG	field wireable gland size 0.24 to 0.32	yes	zener diode (D-Z DO-15 47V 2 W)	4	m3-0.5 x 42 mm / 0.5 Nm (4.4 in lb)	0.07	none
SC10-LS110-0	$14.50	110 ±10%	max 1 A					mov (SIOV S10 K130)	5		0.07	

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

11mm Connectors

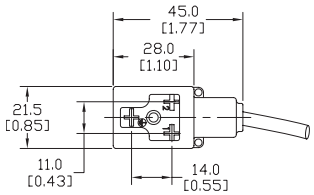
Dimensions shown
mm [inches]





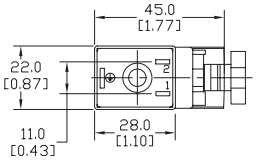
Height = 30mm [1.18in]

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	$17.50	24 ±20%	max 4 A	67	18 AWG	0.23	yes	zener diode (D-Z DO-15 47V 2 W)	10	m3-0.5 x 30 mm / 0.4 Nm (3.5 in lb)	0.44	CSA (080128-0-000)
SC11-LS24-5	$21.50										0.67	
SC11-LS110-3	$21.00	110 ±10%	max 4 A					zener diode (D-Z DO-41 ZY200 2 W)	6		0.44	
SC11-LS110-5	$25.00										0.67	
SC11-LS24-3R	$17.50	24 ±20%	max 4 A					zener diode (D-Z DO-15 47V 2 W)	10		0.44	
SC11-LS24-5R	$21.50										0.67	
SC11-LS110-3R	$21.00	110 ±10%	max 4 A					zener diode (D-Z DO-41 ZY200 2 W)	6		0.44	
SC11-LS110-5R	$25.00										0.67	
SC11-3	$14.00	230	max 10 A				no	none	3		0.44	
SC11-5	$20.50										0.67	
SC11-LS24-0	$12.50	24 ±20%	max 4 A	65	Solid 12 AWG Stranded 14 AWG w/Ferrule 16 AWG	field wireable gland size 0.24 to 0.32	yes	zener diode (D-Z DO-15 47V 2 W)	4	m3-0.5 x 42 mm / 0.5 Nm (4.4 in lb)	0.07	none
SC11-LS110-0	$14.50	110 ±10%	max 1 A					mov (SIOV S10 K130)	5		0.07	
SC11-0	$10.50	230	max 10 A				no	none	9		0.07	

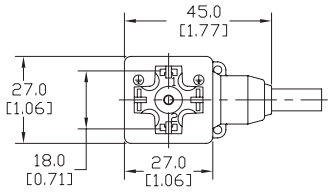
Last numeric digit in part number denotes cable length in meters, a 0 indicates field termination.

Solenoid Valve Cables and Connectors

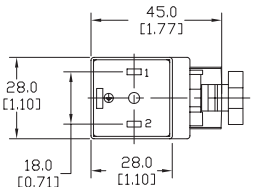
18mm Connectors

Dimensions shown
mm [inches]





Height = 30mm [1.18in]
Connector with Cable



Height = 41mm [1.61in]
Field Wireable Connector

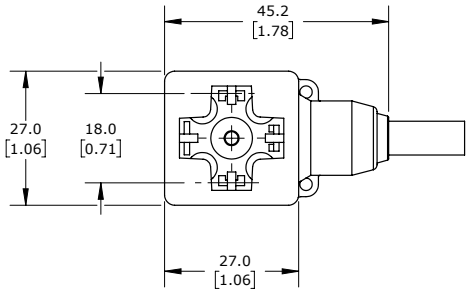
18mm (3-pole) Connectors (per DIN 43650 Form A)												
Part No.	*Price*	*Voltage (AC/DC)*	*Current Rating*	*IP Rating*	*Wire Size*	*Cable Dia. (in)*	*LED*	*Surge Protection*	*Wiring Figure*	*Screw Size/ Torque*	*Weight (lb)*	*Agency Approval*
SC18-LS24-3	$17.50	24 ±20%	max 4A	67	18 AWG	0.23	Yes	zener diode (D-Z DO-15 47V 2 W)	7	m3-0.5 x 30 mm / 0.4 N·m [3.5 in·lb]	0.44	CSA (080128-0-000)
SC18-LS24-5	$23.50										0.69	
SC18-LS110-3	$21.00	110 ±10%	max 4A					zener diode (D-Z DO-41 ZY200 2 W)			0.44	
SC18-LS110-5	$25.00										0.69	
SC18-3	$14.00	230	max 10A				No	none	2		0.44	
SC18-5	$20.50										0.69	
SC18-LS24-0	$12.50	24 ±20%	max 4A	65	Solid 12 AWG Stranded 14 AWG w/Ferrule 16 AWG	field wireable gland size 0.24 to 0.32	Yes	zener diode (D-Z DO-15 47V 2 W)	4	m3-0.5 x 42 mm / 0.5 N·m [4.4 in·lb]	0.07	None
SC18-LS110-0	$14.50	110 ±10%	max 1A					mov (SIOV S10 K130)	5		0.07	
SC18-0	$10.50	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

18mm (4-pole) Connectors (DIN Style, Form A Industrial)													
Part No.	*Price*	*Voltage*	*Current Rating*	*IP Rating*	*Wire Size*	*Cable Dia.*	*Cable Length*	*LED*	*Surge Protection*	*Wiring Figure*	*Screw Size/ Torque*	*Weight (lb)*	*Agency Approval*
7231-18111-6370300	$22.50	230 VAC/ VDC	max 10A	IP67	18 AWG	6.2–6.8 mm	9.8ft/3m	No	None	8	m3-0.5 x 26mm / 0.4 N·m [3.5 in·lb]	0.49	CSA (080128-0-000)
7000-18111-6270300	$22.50											0.53	
7231-18111-6370500	$31.50						16.4ft/5m					0.75	
7000-18111-6270500	$30.00											0.83	

Solenoid Valve Cables and Connectors Wiring Diagrams

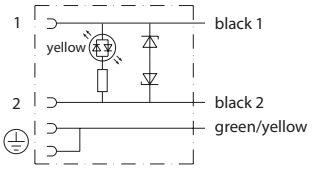


Figure No. 1

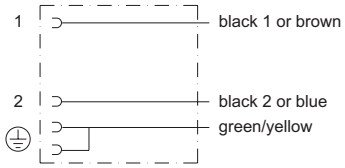


Figure No. 2

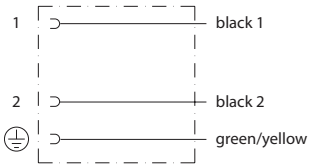


Figure No. 3

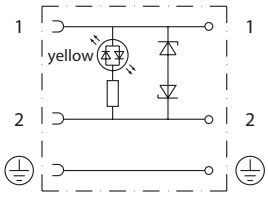


Figure No. 4

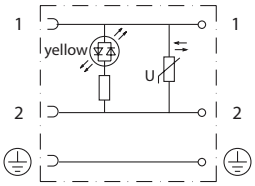


Figure No. 5

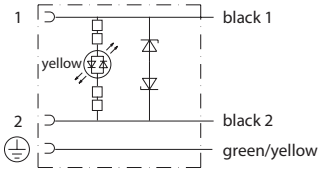


Figure No. 6

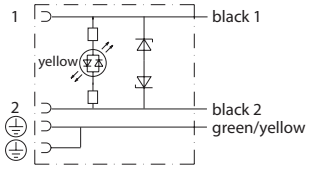


Figure No. 7

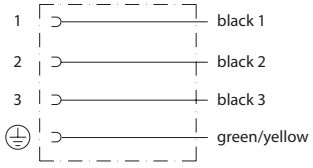


Figure No. 8

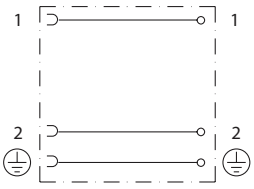


Figure No. 9

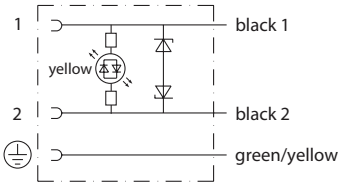


Figure No. 10

Pneumatic GVP Series Miniature Solenoid Valves



Part No. GVP-211C-12D



Part No. GVP-321C-12D

NITRA™ pneumatic miniature solenoid valves are an excellent choice for many automation applications with low flow requirements. Valves must be mounted to a GM-3 series manifold (sold separately).

Features

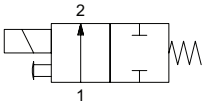
- 10 mm and 15 mm valve widths
- Available in 2-way or 3-way normally closed configurations
- 12 or 24 VDC solenoids
- GM-3 series manifolds sold separately





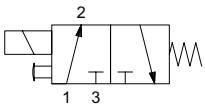
See www.AutomationDirect.com for a wide variety of fitting options

Diagram "A"



2-way, 2-position, Spring Return

Diagram "B"



3-way, 2-position, Spring Return

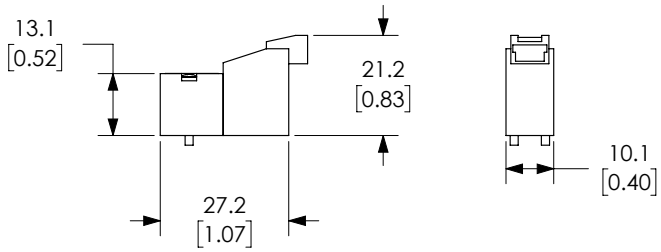
GVP Series Miniature Solenoid Valves

Models	*GVP-211C-12D*	*GVP-211C-24D*	*GVP-311C-12D*	*GVP-311C-24D*	*GVP-221C-12D*	*GVP-321C-12D*	*GVP-321C-24D*
Price	$44.50	$45.50	$45.50	$44.50	$39.00	$39.00	$39.00
Weight (lbs)	0.05				0.1		
Size	10 mm				15 mm		
Valve Type	2-way, 2-position, Normally Closed		3-way, 2-position, Normally Closed		2-way, 2-position, Normally Closed	3-way, 2-position, Normally Closed	
Acting	Single solenoid spring return poppet						
Diagram	A		B		A	B	
Fluid	Air or Inert Gas (to be filtered by 40µ filter element)						
Min. / Max. Pressure	0 to 105 psi (0 to 7.24 bar)						
Flow (Cv)	0.013	0.013	0.013	0.013	0.047	0.047	0.047
Port	Requires GM type 10mm or 15mm manifolds for operation						
Voltage	12 VDC	24 VDC	12 VDC	24 VDC	12 VDC	12 VDC	24 VDC
Continuous ON Power	1.3 W				2.3 W		
Expected Life	50,000,000 cycles at max 3 cycles/second						
Wiring	Connector Receptacle (Wire connector required)				18" Flying Leads		
Response Time	6ms (on), 8ms (off)						
Indication	LED				No LED		
Temperature - Operation and Storage	14 to 122 °F (-10 to +50 °C)						
Lubrication	Not Required						
Body	Glass-filled nylon						
Protection	n/a						

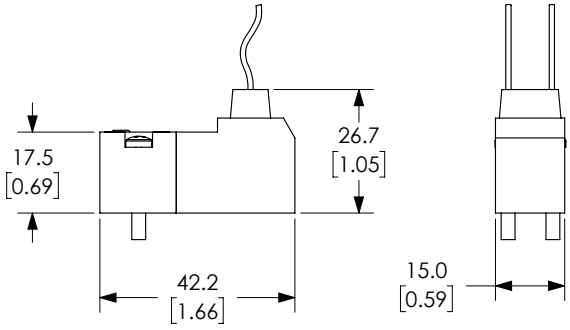
Pneumatic GVP Series Miniature Solenoid Valves

Dimensions

mm [inches]



GVP-x11C-xxD



GVP-x21C-xxD

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

Pneumatic GVP Series Miniature Latching Solenoid Valves

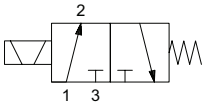


Part No. GVP-311CL-24D



Part No. GVP-321CL-12D

Diagram "A"



3-way, 2-position, Spring Return

NITRA pneumatic latching solenoid valves will stay open after being momentarily energized thus saving power consumption and reducing heat. Valves must be mounted to a GM-3 series manifold (sold separately).

Features

- 10 mm and 15 mm valve widths
- 3-way normally closed configuration
- Reversing polarity changes state
- GM-3 series manifolds sold separately



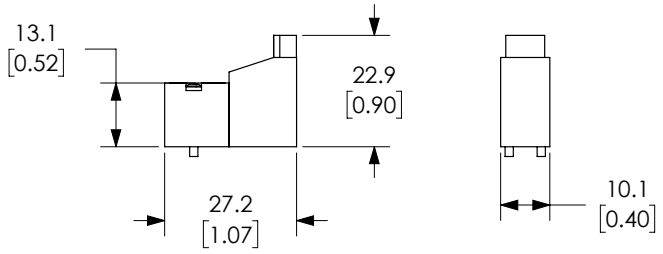
See www.AutomationDirect.com for a wide variety of fitting options

GVP Series Miniature Latching Solenoid Valves		
Model	***GVP-311CL-24D***	***GVP-321CL-12D***
Price	$68.00	$67.00
Weight (lbs)	0.05	0.1
Size	10 mm	15 mm
Valve Type	3-way, 2-position, Normally Closed	3-way, 2-position, Normally Closed
Acting	Single latching solenoid spring return poppet	
Diagram	A	A
Fluid	Air or Inert Gas (to be filtered by 40 µ filter element)	
Min. / Max. Pressure	0 to 105 psi (0 to 7.24 bar)	
Flow (Cv)	0.013	0.047
Port	Requires GM type 10mm or 15 mm manifolds for operation	
Voltage	24 VDC	12 VDC
Continuous ON Power	1.3 W	4 W
Expected Life	50,000,000 cycles at max 2 cycles/second	
Wiring	Connector Receptacle (Wire connector required)	18" Flying Leads
Response Time	6 ms (on), 8 ms (off)	
Indication	LED	No LED
Temperature - Operation and Storage	14 to 122 °F (-10 to +50 °C)	
Lubrication	Not Required	
Body	Glass-filled nylon	
Protection	n/a	

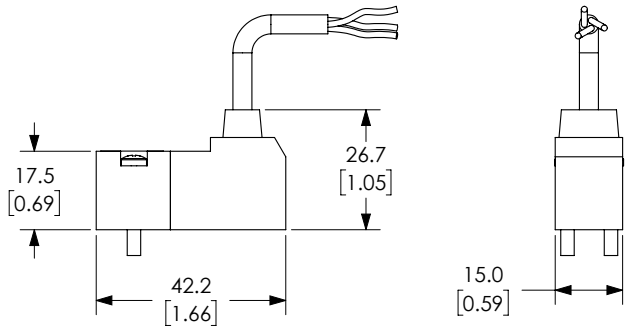
Pneumatic GVP Series Miniature Latching Solenoid Valves

Dimensions

mm [inches]



GVP-x11CL-xxD



GPV-x21CL-xxD

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

Pneumatic GVP Series Miniature Solenoid Valve Manifolds



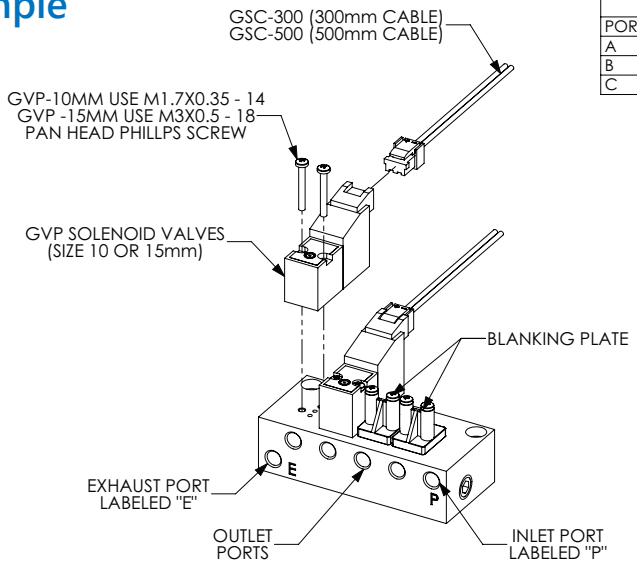
NITRA manifolds designed to work with 10 mm wide GVP series valves.

- Single to 6 stations
- #10-32 female threaded ports
- Precision machined
- Compact
- Anodized aluminum for corrosion resistance
- Made in USA

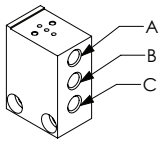
Nitra Pneumatic GVP Series 10 mm Miniature Solenoid Valve Manifolds

Item	Part No.	Description	A inches [mm]	Price	Weight (lbs)
	GM-311	NITRA pneumatic valve manifold, anodized aluminum, white, rectangular, (1) station, #10-32 female UNF inlet(s), #10-32 female UNF outlet(s), #10-32 female threaded exhaust(s). For use with GVP-21 and GVP-31 series solenoid valves.	N/A	$26.50	0.05
	GM-312	NITRA pneumatic valve manifold, anodized aluminum, white, rectangular, (2) stations, #10-32 female UNF inlet(s), #10-32 female UNF outlet(s), #10-32 female threaded exhaust(s). For use with GVP-21 and GVP-31 series solenoid valves.	1.42 [36.1]	$36.00	0.05
	GM-314	NITRA pneumatic valve manifold, anodized aluminum, white, rectangular, (4) stations, #10-32 female UNF inlet(s), #10-32 female UNF outlet(s), #10-32 female threaded exhaust(s). For use with GVP-21 and GVP-31 series solenoid valves.	2.25 [78.2]	$41.00	0.10
	GM-316	NITRA pneumatic valve manifold, anodized aluminum, white, rectangular, (6) stations, #10-32 female UNF inlet(s), #10-32 female UNF outlet(s), #10-32 female threaded exhaust(s). For use with GVP-21 and GVP-31 series solenoid valves.	3.08 [78.2]	$48.50	0.15

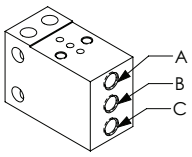
Assembly Example



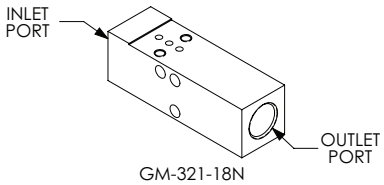
SINGLE STATION MANIFOLDS		
PORT	NC	NO
A	INPUT	EXHAUST
B	EXHAUST	INPUT
C	OUTPUT	OUTPUT



GM-311



GM-321



GM-321-18N

Pneumatic GVP Series Miniature Solenoid Valve Manifolds



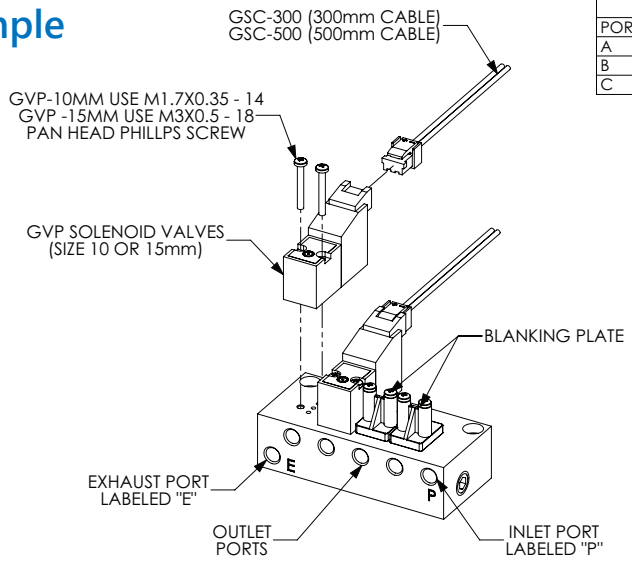
NITRA manifolds designed to work with 15 mm wide GVP series valves.

- Single to 4 stations
- #10-32 threaded or 1/8in NPT female ports
- Precision machined
- Compact
- Anodized aluminum for corrosion resistance
- Made in USA

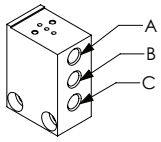
Nitra Pneumatic GVP Series 15 mm Miniature Solenoid Valve Manifolds

Item	Part No.	Description	A inches [mm]	Price	Weight (lbs)
	GM-321	NITRA pneumatic valve manifold, anodized aluminum, white, rectangular, (1) station, #10-32 female UNF inlet(s), #10-32 female UNF outlet(s), #10-32 female threaded exhaust(s). For use with GVP-22 and GVP-32 series solenoid valves.	N/A	$26.50	0.05
	GM-322	NITRA pneumatic valve manifold, anodized aluminum, white, rectangular, (2) stations, 1/8in female NPT inlet(s), #10-32 female UNF outlet(s), 1/8in female NPT exhaust(s). For use with GVP-22 and GVP-32 series solenoid valves.	2.13 [54.0]	$33.50	0.15
	GM-324	NITRA pneumatic valve manifold, anodized aluminum, white, rectangular, (4) stations, 1/8in female NPT inlet(s), #10-32 female threaded outlet(s), 1/8in female NPT exhaust(s). For use with GVP-22 and GVP-32 series solenoid valves.	3.37 [85.7]	$46.00	0.25
	GM-321-18N	NITRA pneumatic valve manifold, anodized aluminum, black, rectangular, (1) station, 1/8in female NPT inlet(s), 1/8in female NPT outlet(s), vent hole exhaust(s). For use with GVP-22 and GVP-32 series solenoid valves.	N/A	$32.00	0.6

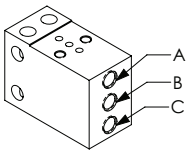
Assembly Example



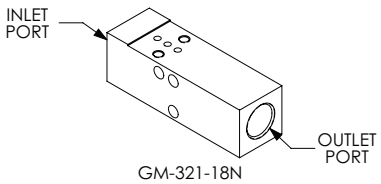
SINGLE STATION MANIFOLDS		
PORT	NC	NO
A	INPUT	EXHAUST
B	EXHAUST	INPUT
C	OUTPUT	OUTPUT



GM-311



GM-321

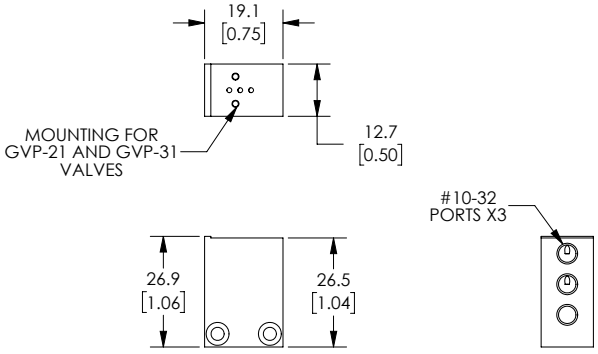


GM-321-18N

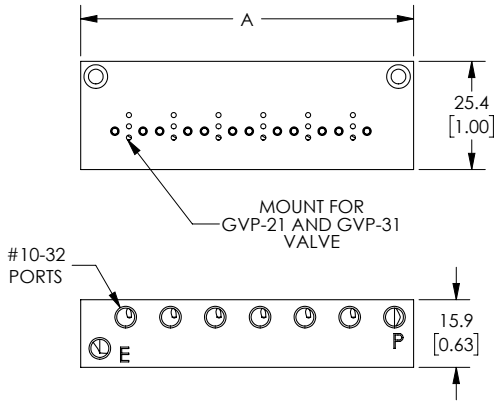
Pneumatic GVP Series Miniature Solenoid Valve Manifolds

Dimensions

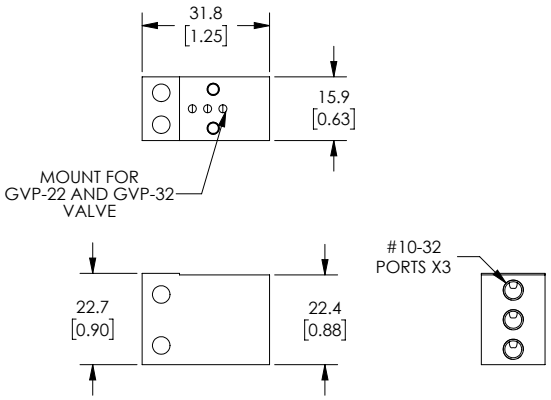
mm [inches]



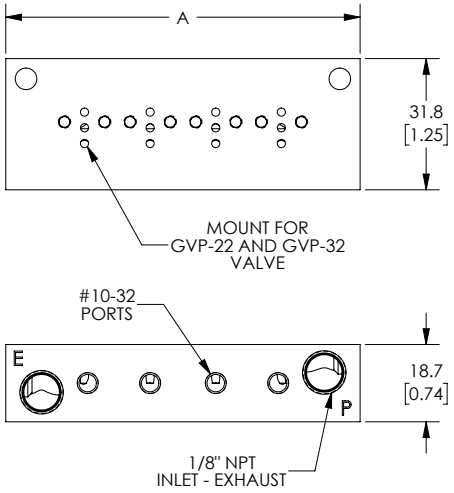
Part No. GM-311



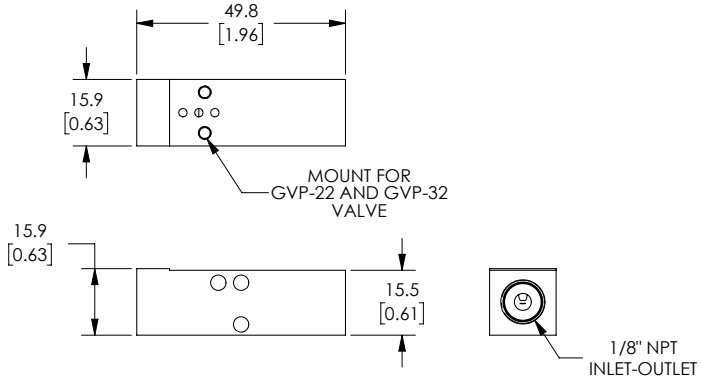
Part No. GM-312, GM-314, GM-316



Part No. GM-321



Part No. GM-322, GM-324



Part No. GM-321-18N

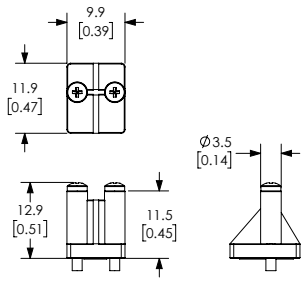
See our website www.AutomationDirect.com for complete Engineering drawings.

Pneumatic GVP Series Miniature Solenoid Manifold Accessories

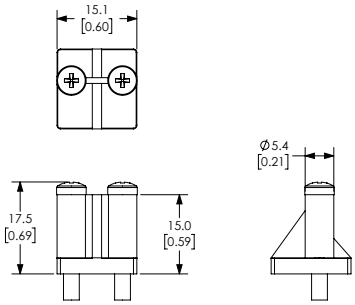
Nitra Pneumatic GVP Series Miniature Solenoid Valve Manifold Accessories				
Item	*Part No.*	*Description*	*Price*	*Weight (lbs)*
	***GM-31BP***	NITRA blanking plate, nylon. For use with GM-31 series manifolds. Gasket and mounting screws included.	$6.25	0.05
	***GM-32BP***	NITRA blanking plate, nylon. For use with GM-32 series manifolds. Gasket and mounting screws included.	$6.00	0.05
	***GSC-300***	NITRA solenoid valve cable, miniature pin plug to pigtail, 11.8in/300mm cable length. For use with GVP series solenoid valves.	$6.00	0.05
	***GSC-500***	NITRA solenoid valve cable, miniature pin plug to pigtail, 19.6in/500mm cable length. For use with GVP series solenoid valves.	$6.50	0.05

Dimensions

mm [inches]



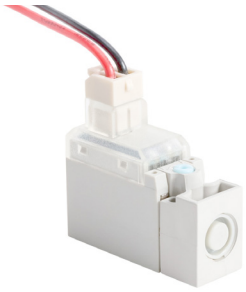
Part No. GM-31BP



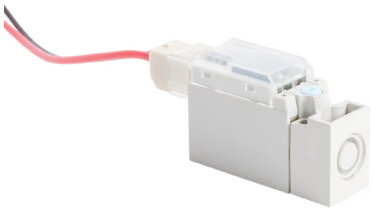
Part No. GM-32BP

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

MVDY - 10mm Miniature Solenoid Valves



Part No. 103310053340009



Part No. 103310053350003

The MVDY-100 series are ultra-compact direct acting solenoid valves designed for applications requiring extremely fast response times and minimal space. These 3-way, single solenoid valves feature M5×0.8 ports with an effective orifice for precise low-flow control. With exceptional 4ms DC response time and operating pressure up to 102 psi, these valves are ideal for instrumentation, medical equipment, and compact automation systems. Available with RMH-type plug connectors in side-mounted or top-mounted configurations for flexible installation in space-constrained applications.

Features

- Ultra-compact design: With minimal weight and miniature M5×0.8 ports, these valves enable dense valve manifold configurations and integration into space-critical applications
- Exceptional response speed: 4 ms DC response time with 5 Hz maximum operating frequency provides precise, rapid control for high-speed automation and instrumentation
- Manifold capability: Supports up to 8-station manifold assemblies with 10.5mm station spacing for compact multi-valve control systems
- Low power consumption: Standard 1.2W DC operation reduces heat generation and energy costs in multi-valve installations
- Vacuum compatible: R port rated for -26 to 0 in·Hg enables vacuum switching applications in pick-and-place, material handling, and laboratory automation (NOTE: Valve is N.O. in this configuration)

Mounting Methods:

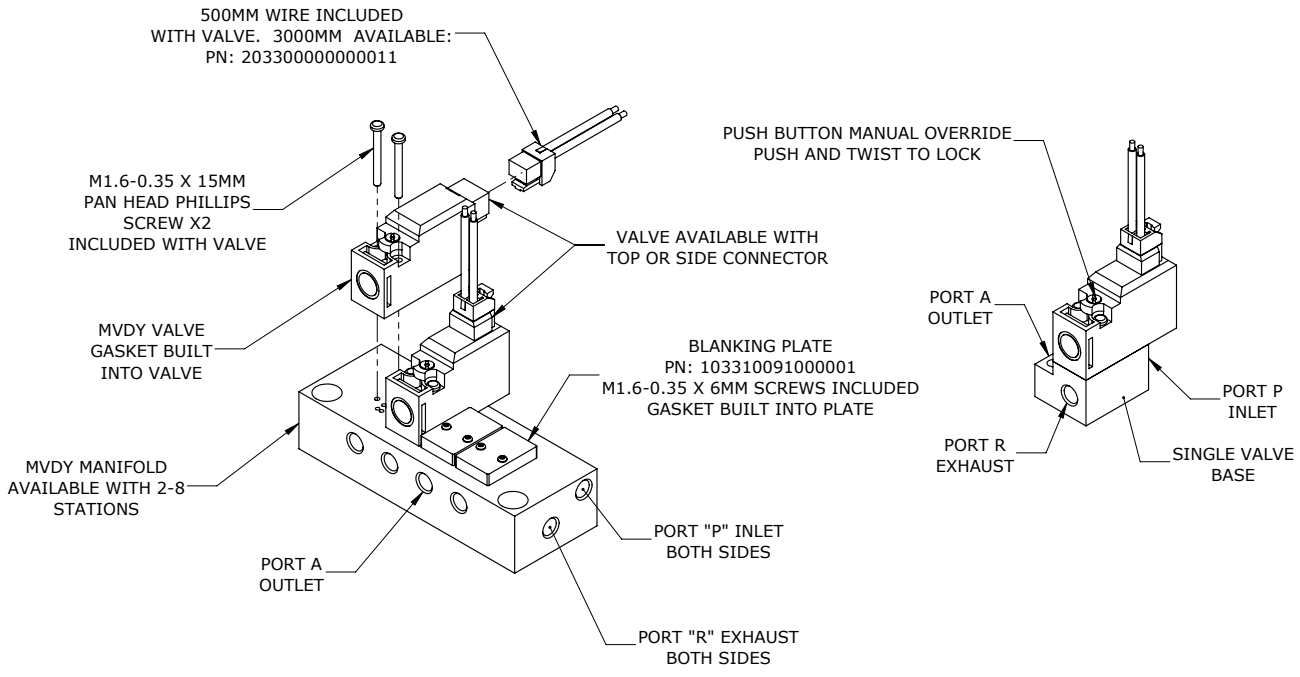
- Direct Base Mounting: Valve mounts to individual 3-port base
- Manifold Mounting: Multiple valves mount side-by-side on manifold with 10.5mm pitch, creating compact multi-station control
- Blocking plates available to cap unused manifold stations

Click or scan the QR code for assembly instructions.





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



WIRING INFORMATION:
CONNECTOR IS JAM RMH STYLE 2-PIN

MVDY - 10mm Miniature Solenoid Valves

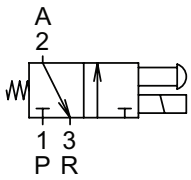


Diagram "A"

MVDC - Stackable Solenoid Valves				
Part No.	***1033100533400009***	***1033100533500003***	***1033100532400004***	***1033100532500001***
Mfg. Part No.	***MVDY-100-3E1-DC24-LR***	***MVDY-100-3E1-DC24-SR***	***MVDY-100-3E1-DC12-LR***	***MVDY-100-3E1-DC12-SR***
Price	$32.00	$32.00	$33.00	$33.00
Drawing Link	PDF	PDF	PDF	PDF
Weight (lb)	0.06	0.06	0.06	0.06
Manufacturer Specs	PDF			
Valve Type	3-way			
Positions	2			
Pneumatic Diagram	A			
Operating Voltage	24 VDC		12 VDC	
Power Rating	1.2W			
Electrical Connection	JAM RMH side plug	JAM RMH top plug	JAM RMH side plug	JAM RMH top plug
Valve Configuration	N.C.			
Acting	Single solenoid spring return			
Inlet Port Size	N/A - requires manifold			
Outlet Port Size	N/A - requires manifold			
Exhaust	N/A - requires manifold			
Flow (Cv)	0.02			
Media	Filtered air without lubrication; lubrication, if used, must be continuous			
Min. Operating Pressure	0 psi			
Max. Operating Pressure	102 psi			
Vacuum Use	When using for vacuum, feed vacuum to "R" port "P" port rated for 0-87 psi. "R" port is rated for -26.5 in Hg. Valve is N.O. in this configuration			
Temperature	23 to 122 °F (-5 to 50 °C)			
Lubrication	ISO VG32 or equivalent			

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

MVDY - 10mm Miniature Solenoid Valve Manifolds and Accessories

The MVDY manifolds and accessories are designed to work specifically with the MVDY miniature solenoid valves. They are made of aluminum and have a maximum operating pressure of 145 psi.



Part No. 103310081010001



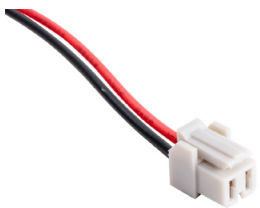
Part No. 103310092041005

10mm Miniature Solenoid Valve Manifolds and Accessories

Part No.	Mfg. Part No.	Number of Stations	Inlet Port Size	Outlet Port Size	Exhaust Port Size	Manufacturer Technical Specifications	Drawing Link	Price	Weight (lb)
103310081010001	MVDY-100-3B1	1	M5 x 0.8 female ISO	M5 x 0.8 female ISO	M5 x 0.8 female ISO	PDF	PDF	$8.50	0.02
103310092021002	MVDY-100-3M2	2	(2) M5 x 0.8 female ISO	(2) M5 x 0.8 female ISO	(2) M5 x 0.8 female ISO		PDF	$20.50	0.09
103310092041005	MVDY-100-3M4	4	(2) M5 x 0.8 female ISO	(4) M5 x 0.8 female ISO	(2) M5 x 0.8 female ISO		PDF	$31.00	0.13
103310092061002	MVDY-100-3M6	6	(2) M5 x 0.8 female ISO	(6) M5 x 0.8 female ISO	(2) M5 x 0.8 female ISO		PDF	$41.00	0.18
103310092081002	MVDY-100-3M8	8	(2) M5 x 0.8 female ISO	(8) M5 x 0.8 female ISO	(2) M5 x 0.8 female ISO		PDF	$51.00	0.21



Part No. 103310091000001



Part No. 203300000000011

10mm Miniature Solenoid Valve Accessories

Part No.	Mfg. Part No.	Description	Manufacturer Technical Specifications	Drawing Link	Price	Weight (lb)
103310091000001	MVDY-100-3P	Mindman blanking plate, plated steel. For use with MVDY-100 series manifolds. Mounting screws included.	PDF	PDF	$4.00	0.01
203300000000011	MVDY-100-WDR3	Mindman solenoid valve cable, JAM RMH male to pigtail, straight cable entry, 24 VDC, 24 AWG, 9.8ft/3m cable length. For use with MVDY-100 series miniature solenoid valves.		PDF	$3.50	0.06

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.

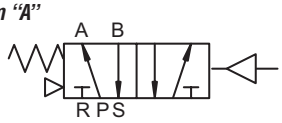
Features

- 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



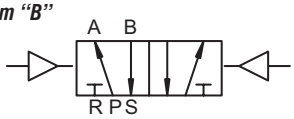
See www.AutomationDirect.com for a wide variety of fitting options

Diagram "A"



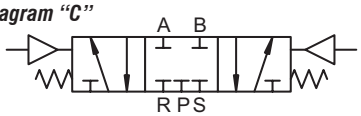
Single Pilot, Spring Return

Diagram "B"



Double Pilot, 2-Position

Diagram "C"



Double Pilot, 3-Position, Center Closed



AVS Series Air Pilot Valve Specifications

Models	***AVS-526C1***	***AVS-526C2***	***AVS-546C4***
Price	$65.00	$66.00	$81.00
Weight (lbs)	0.5	0.5	1.4
Valve Type	5-port 3-position closed center	5-port 3-position closed	5-port 3-position closed center
Acting	double air pilot	double air pilot	double air pilot
Diagram	C	C	C
Port Size	1/8" NPT	Inlet port 1/4" NPT - Exhaust 1/8" NPT	1/2" NPT
Pilot Port Size			
Flow Cv	0.67	0.67	1.68
Fluid	Air (to be filtered by 40 µ filter element)		
Min. / Max. Pressure	20 to 115 psi (Pilot must be at least 50% of inlet pressure)		
Max Activate Rate	3 cycles/sec	3 cycles/sec	3 cycles/sec
Temperature	-5 to +60 °C (23 to 140 °F)		
Lubrication	Not Required		
Body	Aluminum Alloy		
Drawing Figure	3	3	9

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 or spring return operation styles.

Features

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



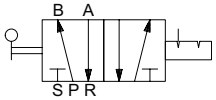
Side View

Toggle Style Hand Lever Valve



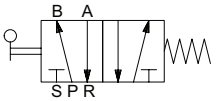
See www.AutomationDirect.com for a wide variety of fitting options

Diagram "A"



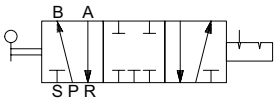
5-Port, 2-Pos. Toggle Detented

Diagram "B"



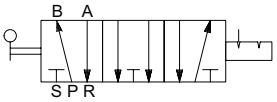
5-Port, 2-Pos. Spring Return

Diagram "C"



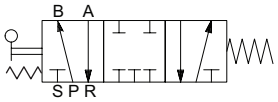
5-Port, 3-Pos. Center Closed Detented

Diagram "D"



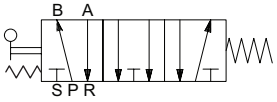
5-Port, 3-Pos. Center Exhaust Detented

Diagram "E"



5-Port, 3-Pos. Center Closed Spring Return

Diagram "F"



5-Port, 3-Pos. Center Exhaust Spring Return

Toggle Style Hand Lever Valve Specifications

Models	*AVS-527D1-HL*	*AVS-528DC1-HL*	*AVS-528DE1-HL*	*AVS-528C1-HL*	*AVS-528E1-HL*
Price	$33.00	$56.00	$58.00	$73.00	$73.00
Weight (lbs)	0.40	0.60	0.40	0.60	0.40
Valve Type	5-port 2-position detented	5-port 3-position center closed detented	5-port 3-position center exhaust detented	5-port 3-position center closed spring return	5-port 3-position center exhaust spring return
Acting	Direct Action Hand Lever				
Diagram	A	C	D	E	F
Port Size	1/8" NPT	1/8" NPT	1/8" NPT	1/8" NPT	1/8" NPT
Flow Cv	0.78	0.67	0.67	0.67	0.67
Fluid	Air (to be filtered by 40 µ filter element)				
Min. / Max. Pressure	0-115 psi				
Temperature	-5 to +60 °C (23 to 140 °F)				
Lubrication	Not Required				
Body	Aluminum Alloy				
Drawing Figure	11				

NITRA PNEUMATICS

Pneumatic Directional Control – Manual Valves



2 YEAR WARRANTY

NEED FITTINGS?

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

45-day Money-Back Guarantee 45 day

Push-Pull Valves

Diagram "A"



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

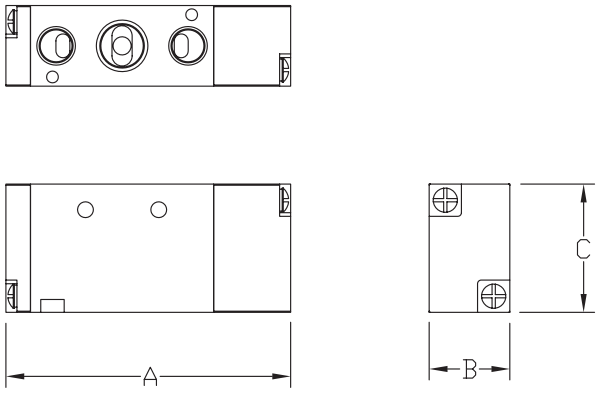
Push-Pull Valve Specifications	
Models	***AVS-527D1-PP***
Price	$31.00
Weight (lbs)	0.3
Valve Type	5-port 2-position detented
Acting	Direct Acting Push-Pull
Diagram	A
Port Size	1/8" NPT
Flow Cv	0.78
Fluid	Air (to be filtered by 40 µ filter element)
Min. / Max. Pressure	0-115 psi
Temperature	-5 to +60 °C (23 to 140 °F)
Lubrication	Not Required
Body	Aluminum Alloy
Drawing Figure	12

Pneumatic Directional Control – Manual Valve Dimensions

Dimensions

mm [inches]

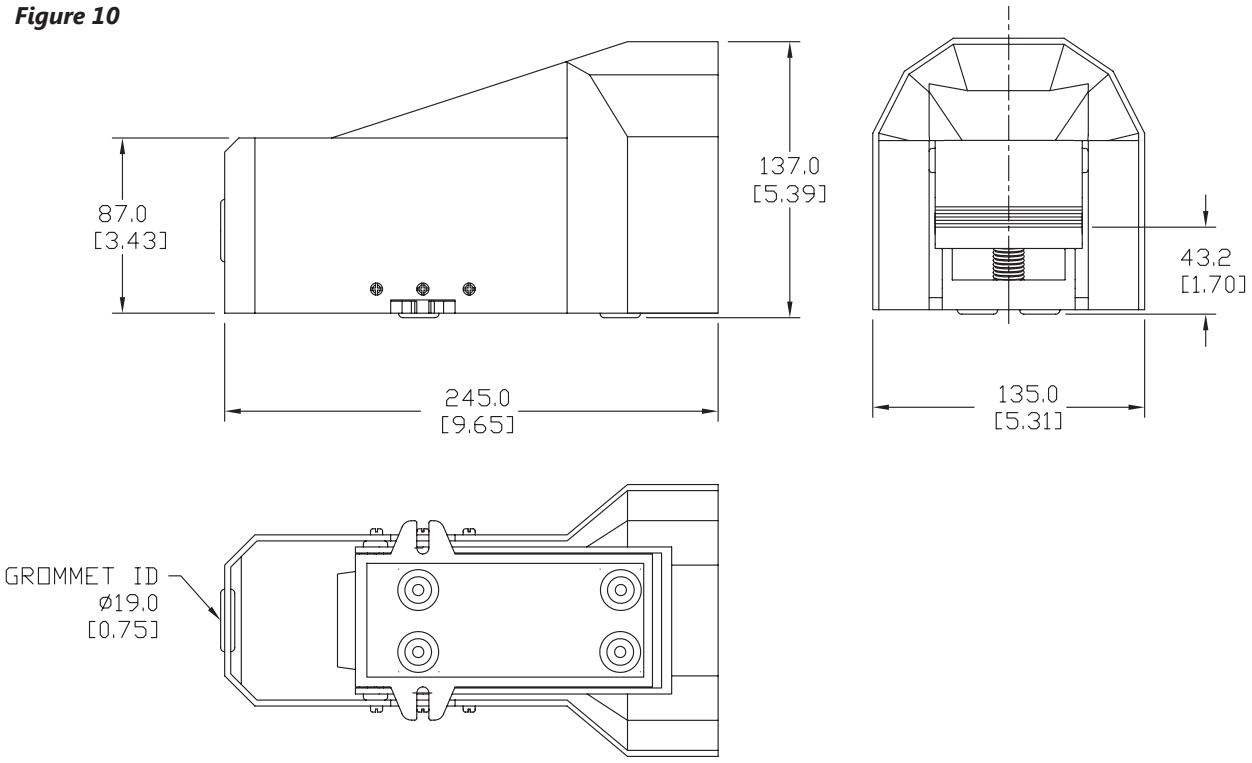
Figures 1-9



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



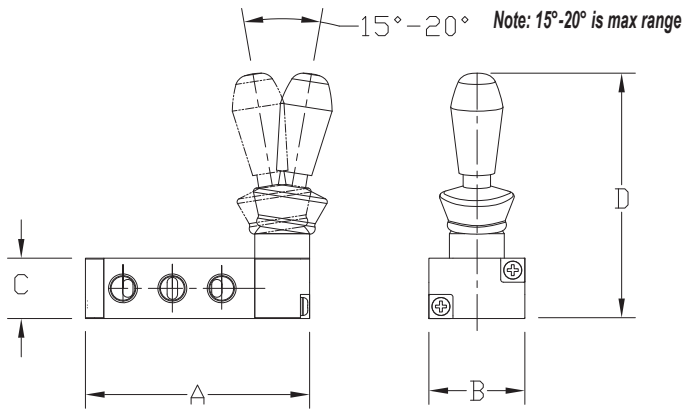
See our website www.AutomationDirect.com for complete Engineering drawings

Pneumatic Directional Control - Manual Valve Dimensions

Dimensions

mm [inches]

Figure 11



Push-Pull Valve Specifications				
Model	***A mm [inches]***	***B mm [inches]***	***C mm [inches]***	***D mm [inches]***
AVS-527D1-HL	81.8 [3.22]	35.0 [1.38]	22.0 [0.87]	89.5 [3.52]
AVS-528DC1-HL	81.5 [3.21]	35.0 [1.38]	22.0 [0.87]	89.9 [3.54]
AVS-528DE1-HL	81.5 [3.21]	35.0 [1.38]	22.0 [0.87]	89.9 [3.54]
AVS-528C1-HL	100.5 [3.96]	35.0 [1.38]	22.0 [0.87]	90.4 [3.56]
AVS-528E1-HL	100.5 [3.96]	35.0 [1.38]	22.0 [0.87]	90.4 [3.56]

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

Pneumatic Directional Control – Manual Valve Dimensions

Dimensions

mm [inches]

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

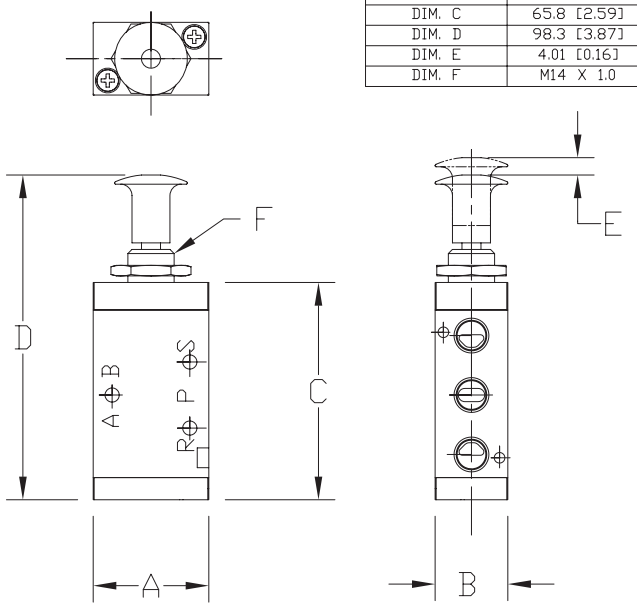
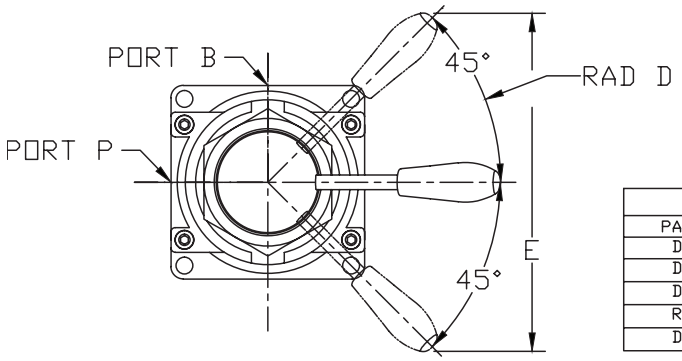
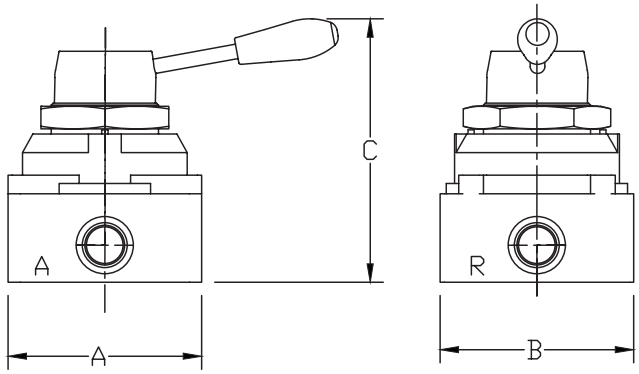


Figure 13



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

mindman

MVAA - Air Pilot Valves



Part No. 104018033034006



Part No. 104030017054004

The MVAA series are compact pilot-operated valves designed to work with externally supplied pilot air, eliminating the need for electrical solenoids. Available in four size ranges with 1/8", 1/4", 3/8", and 1/2" ports. Configurations include 3-way and 4-way options with single pilot and double pilot actuation, plus specialized center position variants (closed/pressure/exhaust) for the larger sizes.

Features

- Pilot-operated design: Operates using external pilot air supply, providing flexible control without electrical connections in hazardous or remote locations
- Scalable capacity range: Four size options to accommodate diverse flow requirements from compact to high-capacity applications
- Versatile pilot configurations: Single pilot and double pilot, with specialized center positions available on larger models for enhanced control flexibility
- NPT threading: Standard NPT ports for North American pneumatic systems, with manifold compatibility using MVSC1/MVSC series mounting components for multi-station installations

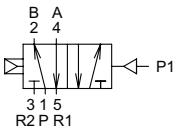


Diagram "A"

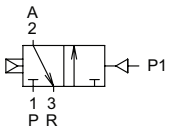


Diagram "B"

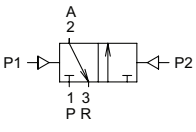


Diagram "C"

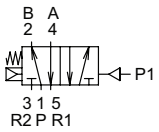


Diagram "D"

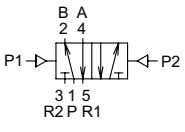


Diagram "E"

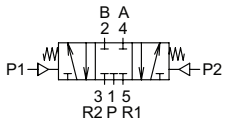


Diagram "F"

MVAA - Air Pilot Valves

Part No.	1040150150210004	1040150160210003	1040180330340006	1040180440340004	1040180150340005	1040180160340004	1040220150440005	1040220160440004
Mfg. Part No.	MVAA-150-4A1	MVAA-150-4A2	MVAA-180-3A1-NC-NPT	MVAA-180-3A2-NPT	MVAA-180-4A1-NPT	MVAA-180-4A2-NPT	MVAA-220-4A1-NPT	MVAA-220-4A2-NPT
Price	$24.00	$25.00	$26.00	$28.00	$25.00	$28.00	$27.00	$29.00
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF
Weight (lb)	0.14	0.16	0.17	0.20	0.19	0.22	0.29	0.35
Manufacturer Specs	PDF		PDF				PDF	
Valve Type	5-port (4-way)		3-port (3-way)		5-port (4-way)			
Positions	2							
Pneumatic Diagram	A	E	B	C	A	E	D	E
Valve Configuration	N/A		N.C.	N/A				
Acting	Single air pilot internal pilot return	Double air pilot	Single air pilot internal pilot return	Double air pilot	Single air pilot internal pilot return	Double air pilot	Single air pilot spring return	Double air pilot
Inlet Port Size	M5 x 0.8 female ISO		1/8" FNPT		1/8" FNPT		1/4" FNPT	
Outlet Port Size	(2) M5 x 0.8 female ISO		1/8" FNPT		(2) 1/8" FNPT		(2) 1/4" FNPT	
Exhaust	M5 x 0.8 female ISO		1/8" FNPT		(2) 1/8" FNPT		(2) 1/8" FNPT	
Flow (Cv)	0.21		0.67				1	
Media	Filtered air without lubrication; lubrication, if used, must be continuous							
Min. Operating Pressure	22 psi	0 psi	22 psi	0 psi	22 psi	0 psi		
Max. Operating Pressure	116 psi							
Min. Pilot Pressure	(0.45*Operating Pressure)+15 psi						(0.3*Operating Pressure)+15 psi	
Temperature	23 to 122 °F (-5 to +50 °C)							
Lubrication	ISO VG32 or equivalent							

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

MVAA - Air Pilot Valves

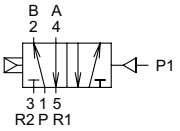


Diagram "A"

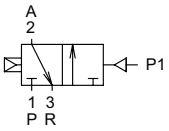


Diagram "B"

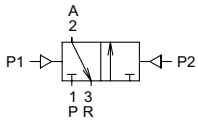


Diagram "C"

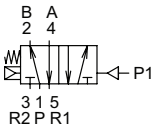


Diagram "D"

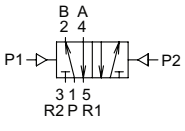


Diagram "E"

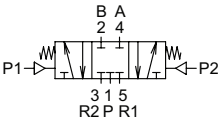


Diagram "F"

MVAA - Air Pilot Valves

Part No.	1040220170 44004	1040300150 54005	1040300160 54004	1040300170 54004	1040460150 64005	1040460160 64004	1040460170 64004
Mfg. Part No.	MVAA-220-4A2C-NPT	MVAA-300-4A1-NPT	MVAA-300-4A2-NPT	MVAA-300-4A2C-NPT	MVAA-460-4A1-NPT	MVAA-460-4A2-NPT	MVAA-460-4A2C-NPT
Price	$52.00	$31.00	$37.00	$57.00	$39.00	$45.00	$71.00
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF	PDF
Weight (lb)	0.40	0.63	0.77	0.90	0.68	0.82	0.96
Manufacturer Specs	PDF	PDF			PDF		
Valve Type	5-port (4-way)						
Positions	3	2		3	2		3
Pneumatic Diagram	F	D	E	F	D	E	F
Valve Configuration	Center closed	N/A		Center closed	N/A		Center closed
Acting	Double air pilot	Single air pilot spring return	Double air pilot		Single air pilot spring return	Double air pilot	
Inlet Port Size	1/4" FNPT	3/8" FNPT			1/2" FNPT		
Outlet Port Size	(2) 1/4" FNPT	(2) 3/8" FNPT			(2) 1/2" FNPT		
Exhaust	(2) 1/8" FNPT	(2) 3/8" FNPT			(2) 1/2" FNPT		
Flow (Cv)	1	1.94			2.78		
Media	Filtered air without lubrication; lubrication, if used, must be continuous						
Min. Operating Pressure	0 psi						
Max. Operating Pressure	116 psi						
Min. Pilot Pressure	(0.3*Operating Pressure)+15 psi	(0.34*Operating Pressure)+15 psi					
Temperature	23 to 122 °F (-5 to +50 °C)						
Lubrication	ISO VG32 or equivalent						

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

mindman

MVHB - Hand Lever Valves and Manifolds



Part No. 106122017044003

The MVHB series are manually operated hand lever valves designed for reliable pneumatic control without electrical power requirements. Available in three size ranges 1/4", 3/8", and 1/2" ports, these valves provide for diverse flow applications. All models feature 5-port, 4-way configurations with spring return and detent options, plus specialized center position variants (closed/pressure/exhaust) for enhanced control flexibility, with the MVHB-300 and MVHB-500 also available in vertical mounting configurations.

Features

- Manual operation: Hand lever actuation eliminates electrical power requirements, ideal for emergency shutoff, remote locations, or applications requiring manual override control
- Versatile mounting options: MVHB-220 can be panel-mounted (M); MVHB-300/500 offered in both standard and vertical (V) configurations for flexible installation requirements
- Vertical models can be mounted on available manifolds for 2 or 4 position assemblies
- Spring return and detent operation: Choose between automatic spring return for momentary control or detent position for sustained operation without holding the lever
- Center position control: Specialized variants (closed/pressure/exhaust center) provide precise three-position control for applications requiring neutral state functionality or system pressurization

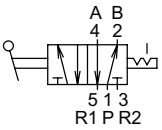


Diagram "A"

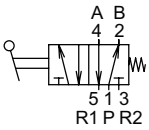


Diagram "B"

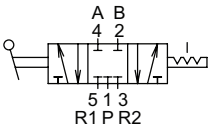


Diagram "C"

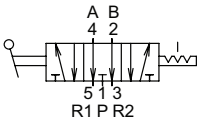


Diagram "D"

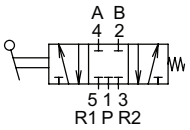


Diagram "E"

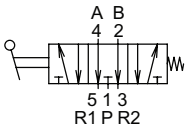


Diagram "F"

MVHB - Hand Lever Valves

Part No.	106122015044005	106122015144004	106122017044003	106122017144004	106122019044002	106122019144003	106130015054002	106130015154002
Mfg. Part No.	MVHB-220-4TV-M-NPT	MVHB-220-4TV-SP-M-NPT	MVHB-220-4TVC-M-NPT	MVHB-220-4TVC-SP-M-NPT	MVHB-220-4TVR-M-NPT	MVHB-220-4TVR-SP-M-NPT	MVHB-300-4TV-NPT	MVHB-300-4TV-SP-NPT
Price	$39.00	$42.00	$42.00	$51.00	$42.00	$51.00	$55.00	$55.00
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF
Weight (lb)	0.45	0.45	0.52	0.57	0.51	0.57	1.01	1.01
Manufacturer Specs	PDF						PDF	
Valve Type	5-port (4-way)							
Positions	2		3				2	
Pneumatic Diagram	A	B	C	E	D	F	A	B
Valve Configuration	N/A		Center closed		Center exhaust		N/A	
Operator	90 deg hand lever							
Acting	Detented	Spring return	Detented	Spring return to center from right or left	Detented	Spring return to center from right or left	Detented	Spring return
Inlet Port Size	1/4" FNPT						3/8" FNPT	
Outlet Port Size	(2) 1/4" FNPT						(2) 3/8" FNPT	
Exhaust	(2) 1/8" FNPT						(2) 3/8" FNPT	
Flow (Cv)	1		0.89				1.89	
Media	Filtered air without lubrication; lubrication, if used, must be continuous							
Min. Operating Pressure	0 psi							
Max. Operating Pressure	116 psi						174 psi	
Temperature	23 to 140 °F (-5 to +60 °C)							
Lubrication	ISO VG32 or equivalent							

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

MVHB - Hand Lever Valves and Manifolds



Part No. 106130019054001



Part No. 106130017154003



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

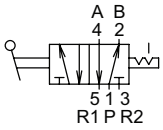


Diagram "A"

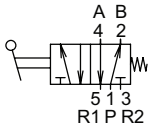


Diagram "B"

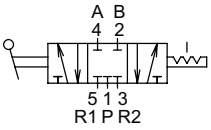


Diagram "C"

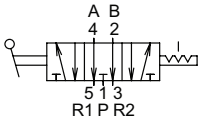


Diagram "D"

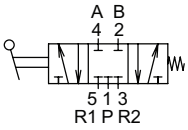


Diagram "E"

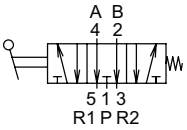


Diagram "F"

MVHB - Hand Lever Valves

Part No.	106130017054002	106130017154002	106130019054001	106130019154003	106130015254001	106130015454001	106130017054003	106130017154003
Mfg. Part No.	MVHB-300-4TVC-NPT	MVHB-300-4TVC-SP-NPT	MVHB-300-4TVR-NPT	MVHB-300-4TVR-SP-NPT	MVHB-300V-4TV-NPT	MVHB-300V-4TV-SP-NPT	MVHB-300V-4TVC-NPT	MVHB-300V-4TVC-SP-NPT
Price	$61.00	$66.00	$61.00	$66.00	$55.00	$55.00	$61.00	$66.00
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF
Weight (lb)	1.09	1.23	1.08	1.23	1.01	1.01	1.09	1.24
Manufacturer Specs	PDF							
Valve Type	5-port (4-way)							
Positions	3				2		3	
Pneumatic Diagram	C	E	D	F	A	B	C	E
Valve Configuration	Center closed		Center exhaust		N/A		Center closed	
Operator	90 deg hand lever				Vertical hand lever			
Acting	Detented	Spring return to center from right or left	Detented	Spring return to center from right or left	Detented	Spring return	Detented	Spring return to center from right or left
Inlet Port Size	3/8" FNPT							
Outlet Port Size	(2) 3/8" FNPT							
Exhaust	(2) 3/8" FNPT							
Flow (Cv)	1.89							
Media	Filtered air without lubrication; lubrication, if used, must be continuous							
Min. Operating Pressure	0 psi							
Max. Operating Pressure	174 psi							
Temperature	23 to 140 °F (-5 to +60 °C)							
Lubrication	ISO VG32 or equivalent							

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

MVHB - Hand Lever Valves and Manifolds

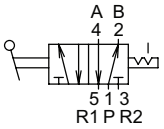


Diagram "A"

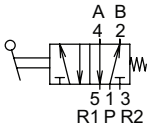


Diagram "B"

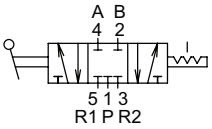


Diagram "C"

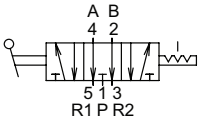


Diagram "D"

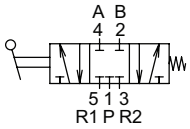


Diagram "E"

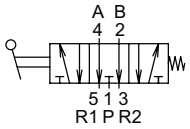


Diagram "F"

MVHB - Hand Lever Valves

Part No.	106130019154004	106130019154005	106150015064003	106150015164002	106150017064002	106150017164008	106150019064001	106150019164002
Mfg. Part No.	MVHB-300V-4TVR-NPT	MVHB-300V-4TVR-SP-NPT	MVHB-500-4TV-NPT	MVHB-500-4TV-SP-NPT	MVHB-500-4TVC-NPT	MVHB-500-4TVC-SP-NPT	MVHB-500-4TVR-NPT	MVHB-500-4TVR-SP-NPT
Price	$61.00	$66.00	$63.00	$63.00	$68.00	$69.00	$68.00	$69.00
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF
Weight (lb)	1.08	1.23	1.11	1.11	1.11	1.27	1.11	1.26
Manufacturer Specs	PDF		PDF					
Valve Type	5-port (4-way)							
Positions	3		2		3			
Pneumatic Diagram	D	F	A	B	C	E	D	F
Valve Configuration	Center exhaust		N/A		Center closed		Center exhaust	
Operator	Vertical hand lever		90 deg hand lever90 deg hand lever					
Acting	Detented	Spring return to center from right or left	Detented	Spring return	Detented	Spring return to center from right or left	Detented	Spring return to center from right or left
Inlet Port Size	3/8" FNPT		1/2" FNPT					
Outlet Port Size	(2) 3/8" FNPT		(2) 1/2" FNPT					
Exhaust	(2) 3/8" FNPT		(2) 1/2" FNPT					
Flow (Cv)	1.89		2.28					
Media	Filtered air without lubrication; lubrication, if used, must be continuous							
Min. Operating Pressure	0 psi							
Max. Operating Pressure	174 psi							
Temperature	23 to 140 °F (-5 to +60 °C)							
Lubrication	ISO VG32 or equivalent							

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

MVHB - Hand Lever Valves and Manifolds

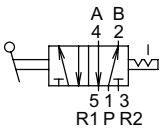


Diagram "A"

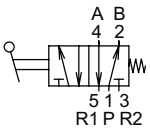


Diagram "B"

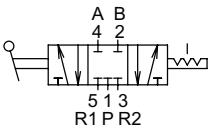


Diagram "C"

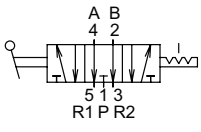


Diagram "D"

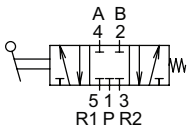


Diagram "E"

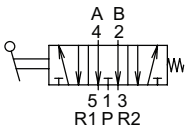


Diagram "F"

MVHB - Hand Lever Valves						
Part No.	***10615001506400 4***	***10615001516400 3***	***10615001716400 9***	***10615001716401 0***	***10615001906400 2***	***10615001916400 3***
Mfg. Part No.	***MVHB-500V-4TV-NPT***	***MVHB-500V-4TV-SP-NPT***	***MVHB-500V-4TVC-NPT***	***MVHB-500V-4TVC-SP-NPT***	***MVHB-500V-4TVR-NPT***	***MVHB-500V-4TVR-SP-NPT***
Price	$63.00	$63.00	$68.00	$69.00	$68.00	$69.00
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF
Weight (lb)	1.11	1.11	1.11	1.27	1.11	1.26
Manufacturer Specs	PDF					
Valve Type	5-port (4-way)					
Positions	2		3			
Pneumatic Diagram	A	B	C	E	D	F
Valve Configuration	N/A		Center closed		Center exhaust	
Operator	Vertical hand lever					
Acting	Detented	Spring return	Detented	Spring return to center from right or left	Detented	Spring return to center from right or left
Inlet Port Size	1/2" FNPT					
Outlet Port Size	(2) 1/2" FNPT					
Exhaust	(2) 1/2" FNPT					
Flow (Cv)	2.28					
Media	Filtered air without lubrication; lubrication, if used, must be continuous					
Min. Operating Pressure	0 psi					
Max. Operating Pressure	174 psi					
Temperature	23 to 140 °F (-5 to +60 °C)					
Lubrication	ISO VG32 or equivalent					

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

MVHB - Hand Lever Valve Manifolds and Accssories

MVSE manifolds fit MVHB vertical lever manual valves.
Available in 2 or 4 stations.



Part No. 100430093024001



Part No. 100430093000001



Assembly example shown.



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

MVHB - Hand Lever Valve Manifolds

Part No.	Mfg. Part No.	Number of Stations	Inlet Port Size	Exhaust Port Size	Manufacturer Technical Specifications	Drawing Link	Price	Weight (lb)
100430093024001	MVSE-300-5B2-NPT	2	(2) 3/8" FNPT	(4) 3/8" FNPT	PDF	PDF	$18.00	0.51
100430093044001	MVSE-300-5B4-NPT	4				PDF	$29.00	0.89
100450093024001	MVSE-500-5B2-NPT	2	(2) 1/2" FNPT	(4) 1/2" FNPT	PDF	PDF	$27.00	0.84
100450093044001	MVSE-500-5B4-NPT	4				PDF	$44.00	1.50

MVHB - Hand Lever Manifold Accessories

Part No.	Mfg. Part No.	Description	Manufacturer Technical Specifications	Drawing Link	Price	Weight (lb)
100430093000001	MVSE-300-5P	Mindman blanking plate, plated steel. For use with MVSE-300-5 series manifolds. Mounting screws included.	PDF	PDF	$3.00	0.09
100246093000004	MVSC-460-5P	Mindman blanking plate, plated steel. For use with MVSC-460-5 and MVSE-500-5 series manifolds. Mounting screws included.	PDF	PDF	$2.00	0.19

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

MVHD - Push-Pull Valves



Part No. 106322000034002



Part No. 106322000044002

The MVHD-220 series are compact panel-mounted push-pull hand valves designed for manual pneumatic control in space-constrained applications. Available in 3-way and 4-way configurations with 1/4" NPT ports, these valves feature an 18 mm^2 effective orifice and operate across 0 to 116 psi pressure range. The ergonomic push-pull actuator design allows for single-handed operation through a compact ø14.5mm panel mounting hole, with both momentary spring return and latching detent options available.

Features

- Compact panel mounting: Requires only ø14.5mm panel cutout with M14×1.5 threading for quick installation in control panels, operator stations, or equipment interfaces
- Push-pull operation: Ergonomic single-motion actuation provides intuitive control with minimal effort, ideal for applications requiring frequent manual valve operation
- Spring return and detent options: Standard models offer automatic spring return for momentary control, while detent versions provide maintained position operation without holding
- Versatile configurations: 3-way models available in normally closed (N.C.); 4-way models provide complete 5-port directional control for double-acting cylinders

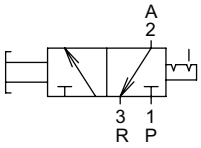


Diagram "A"

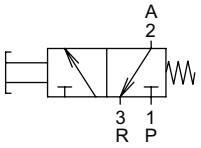


Diagram "B"

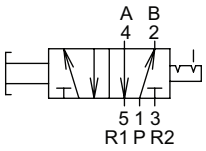


Diagram "C"

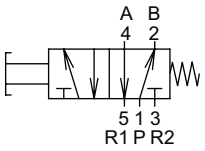


Diagram "D"



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

MVHD - Push-Pull Valves				
Part No.	***106322000034002***	***106322000034003***	***106322000044002***	***106322000044003***
Mfg. Part No.	***MVHD-220-3P-NC-NPT***	***MVHD-220-3P-NC-SP-NPT***	***MVHD-220-4P-NPT***	***MVHD-220-4P-SP-NPT***
Price	$33.00	$33.00	$33.00	$33.00
Drawing Link	PDF	PDF	PDF	PDF
Weight (lb)	0.38	0.38	0.42	0.42
Manufacturer Specs	PDF			
Valve Type	3-port (3-way)		5-port (4-way)	
Positions	2			
Pneumatic Diagram	A	B	C	D
Valve Configuration	N.C.		N/A	
Operator	Push-pull knob			
Acting	Detented	Spring return	Detented	Spring return
Inlet Port Size	1/4" FNPT			
Outlet Port Size	1/4" FNPT		(2) 1/4" FNPT	
Exhaust	1/4" FNPT		(2) 1/8" FNPT	
Flow (Cv)	1		1	
Media	Filtered air without lubrication; lubrication, if used, must be continuous			
Min. Operating Pressure	0 psi			
Max. Operating Pressure	116 psi			
Temperature	23 to 122 °F (-5 to +50 °C)			
Lubrication	ISO VG32 or equivalent			

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

MVHC - Rotary Valves



Part No. 106220000034004



Part No. 106230000064005

The MVHC series are robust rotary hand lever valves designed for panel-mounted manual pneumatic control with 4-port (4-way) directional operation. Available in three body sizes (200/300/400) with port sizes ranging from 1/8" to 3/4" FNPT, providing a wide range of flow capacity requirements. Operating across 7 to 145 psi pressure range, the rotary design offers three position options: closed center, exhaust center, or 2-position control for precise pneumatic system management.

Features

- Rotary panel mounting: Panel-mounted design provides secure installation with included mounting nut for professional control panel integration
- Three control configurations: Closed center, exhaust center, and 2-position options enable precise application matching for various pneumatic control requirements
- Scalable flow capacity: Three body sizes accommodate port configurations from 1/8" to 3/4" for applications from compact instrumentation to high-flow industrial systems
- Available with side ports

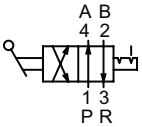


Diagram "A"

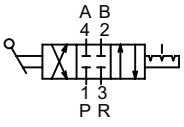


Diagram "B"

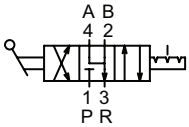


Diagram "C"



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

MVHC - Rotary Valves						
Part No.	***106220200034002***	***106220000034004***	***106220100034003***	***106220200044006***	***106220000044006***	***106220100044005***
Mfg. Part No.	***MVHC-202-4H-6A-M-NPT***	***MVHC-200-4H-6A-M-NPT***	***MVHC-201-4H-6A-M-NPT***	***MVHC-202-4H-8A-M-NPT***	***MVHC-200-4H-8A-M-NPT***	***MVHC-201-4H-8A-M-NPT***
Price	$33.00	$33.00	$33.00	$33.00	$33.00	$33.00
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF
Weight (lb)	0.79	0.78	0.78	0.77	0.77	0.77
Manufacturer Specs	PDF					
Valve Type	4-port (4-way)					
Positions	2	3		2	3	
Pneumatic Diagram	A	B	C	A	B	C
Valve Configuration	N/A	Center closed	Center exhaust	N/A	Center closed	Center exhaust
Operator	Rotary lever					
Acting	Detented					
Inlet Port Size	1/8" FNPT			1/4" FNPT		
Outlet Port Size	(2) 1/8" FNPT			(2) 1/4" FNPT		
Exhaust	1/8" FNPT			1/4" FNPT		
Flow (Cv)	0.39			0.39		
Media	Filtered air without lubrication; lubrication, if used, must be continuous					
Min. Operating Pressure	7 psi					
Max. Operating Pressure	145 psi					
Temperature	23 to 140 °F (-5 to +60 °C)					
Lubrication	ISO VG32 or equivalent					

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

MVHC - Rotary Valves

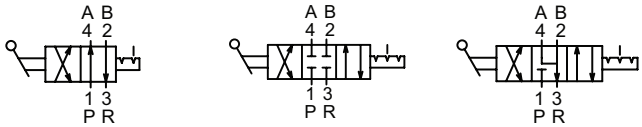


Diagram "A" Diagram "B" Diagram "C"

MVHC - Rotary Valves						
Part No.	***1062302000540005***	***1062300000540006***	***1062302000640002***	***1062300000640005***	***1062402000740002***	***1062400000740005***
Mfg. Part No.	***MVHC-302-4H-10A-M-NPT***	***MVHC-300-4H-10A-M-NPT***	***MVHC-302-4H-15A-M-NPT***	***MVHC-300-4H-15A-M-NPT***	***MVHC-402-4H-20A-M-NPT***	***MVHC-400-4H-20A-M-NPT***
Price	$40.00	$40.00	$40.00	$40.00	$52.00	$52.00
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF
Weight (lb)	1.33	1.32	1.29	1.29	2.58	2.57
Manufacturer Specs	PDF					
Valve Type	4-port (4-way)					
Positions	2	3	2	3	2	3
Pneumatic Diagram	A	B	A	B	A	B
Valve Configuration	N/A	Center closed	N/A	Center closed	N/A	Center closed
Operator	Rotary lever					
Acting	Detented					
Inlet Port Size	3/8" FNPT		1/2" FNPT		3/4" FNPT	
Outlet Port Size	(2) 3/8" FNPT		(2) 1/2" FNPT		(2) 3/4" FNPT	
Exhaust	3/8" FNPT		1/2" FNPT		3/4" FNPT	
Flow (Cv)	1.61		1.83		3.94	
Media	Filtered air without lubrication; lubrication, if used, must be continuous					
Min. Operating Pressure	7 psi					
Max. Operating Pressure	145 psi					
Temperature	23 to 140 °F (-5 to +60 °C)					
Lubrication	ISO VG32 or equivalent					

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

MVHS - Slide Valves



Part No. 106600000044001



Part No. 106600000074001

The MVHS series are compact inline hand slide valves designed for simple manual on/off pneumatic control in portable and field applications. Available in four sizes with NPT threading from 1/4" to 3/4", these lightweight valves provide effective orifices for diverse flow requirements. Operating across 7-145 psi pressure range, the intuitive slide mechanism offers quick, single-handed actuation for 3-port, 2-position directional control in a compact, inline-mounted package.

Features

- Compact inline design: Lightweight construction with straight-through flow path enables space-efficient installation directly in pneumatic lines without panel mounting
- Simple slide operation: Intuitive push-pull slide mechanism provides quick, effortless single-handed actuation for on/off control in field or temporary applications
- Scalable flow capacity: Four size options from 1/4" to 3/4" accommodate applications from instrumentation to high-flow industrial requirements
- Wide pressure range: 7-145 psi operating range enables use in both low-pressure instrumentation and standard industrial pneumatic systems

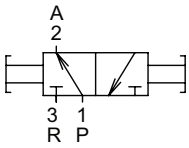


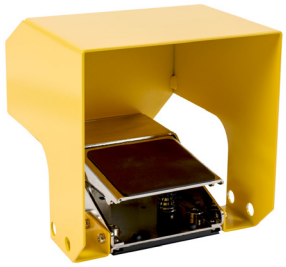
Diagram "A"

MVHS - Slide Valves				
Part No.	*106600000044001*	*106600000054001*	*106600000064001*	*106600000074001*
Mfg. Part No.	*MVHS-8A-NPT*	*MVHS-10A-NPT*	*MVHS-15A-NPT*	*MVHS-20A-NPT*
Price	$11.00	$12.50	$20.00	$28.50
Drawing Link	PDF	PDF	PDF	PDF
Weight (lb)	0.11	0.14	0.33	0.37
Manufacturer Specs	PDF			
Valve Type	2-port (3-way)			
Positions	2			
Pneumatic Diagram	A			
Operator	Hand slide			
Inlet Port Size	1/4" FNPT	3/8" FNPT	1/2" FNPT	3/4" FNPT
Outlet Port Size	1/4" male NPT	3/8" male NPT	1/2" male NPT	3/4" male NPT
Exhaust	Vent hole			
Flow (Cv)	1.69	1.79	3.53	4.74
Media	Filtered air without lubrication; lubrication, if used, must be continuous			
Min. Operating Pressure	7 psi			
Max. Operating Pressure	145 psi			
Temperature	23 to 140 °F (-5 to +60 °C)			
Lubrication	ISO VG32 or equivalent			

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

mindman

MVFA - Foot Valves



Part No. 107023003044001



Part No. 107024000444002

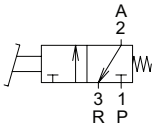


Diagram "A"

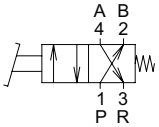


Diagram "B"

The MVFA series are industrial foot pedal valves designed for hands-free pneumatic control in manufacturing and assembly operations. Available in 3-way normally closed (MVFA-230) and 4-way (MVFA-240) configurations with 1/4" FNPT ports and 8 mm^2 effective orifice, these valves operate across 29-102 psi pressure range for reliable hands-free actuation. Optional features include protective cover for heavy-duty environments and locking mechanism for sustained operation without continuous foot pressure.

Features

- Hands-free operation: Foot pedal actuation enables operators to keep both hands free for assembly, material handling, or equipment operation tasks
- Protective guard option: Optional metal guard cover (P suffix) prevents accidental actuation from dropped objects or inadvertent contact, critical for safety in busy work areas
- Mechanical lock feature: Lock option (L suffix) maintains the pedal in actuated position for sustained air flow without continuous foot pressure, ideal for extended operation cycles
- Robust industrial design: Heavy-duty construction with optional protection ensures reliable performance in demanding factory floor environments



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

MVFA - Foot Valves

Part No.	107023003044001	107023003444001	107023003044101	107023003444101	107024000044001	107024000444002	107024000444003	107024000444004
Mfg. Part No.	MVFA-230-8A-NPT	MVFA-230-8A-L-NPT	MVFA-230-8A-P-NPT	MVFA-230-8A-PL-NPT	MVFA-240-8A-NPT	MVFA-240-8A-L-NPT	MVFA-240-8A-P-NPT	MVFA-240-8A-PL-NPT
Price	$36.50	$40.00	$54.00	$59.00	$46.00	$50.00	$62.00	$68.00
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF
Weight (lb)	1.66	1.71	3.35	3.40	1.79	1.86	3.48	3.52
Manufacturer Specs	PDF							
Valve Type	3-port (3-way)				4-port (4-way)			
Positions	2							
Pneumatic Diagram	A				B			
Valve Configuration	N.C.				N/A			
Operator	Non-locking foot pedal	Locking foot pedal	Non-locking foot pedal	Locking foot pedal	Non-locking foot pedal	Locking foot pedal	Non-locking foot pedal	Locking foot pedal
Foot Guard	None		Yellow steel		None		Yellow steel	
Acting	Spring return							
Inlet Port Size	1/4" FNPT							
Outlet Port Size	1/4" FNPT							
Exhaust	1/4" FNPT				(2) 1/4" FNPT			
Flow (Cv)	0.44							
Media	Filtered air without lubrication; lubrication, if used, must be continuous							
Min. Operating Pressure	29 psi							
Max. Operating Pressure	102 psi							
Temperature	23 to 140 °F (-5 to +60 °C)							
Lubrication	ISO VG32 or equivalent							

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

Pneumatic Pushbuttons, 22 mm

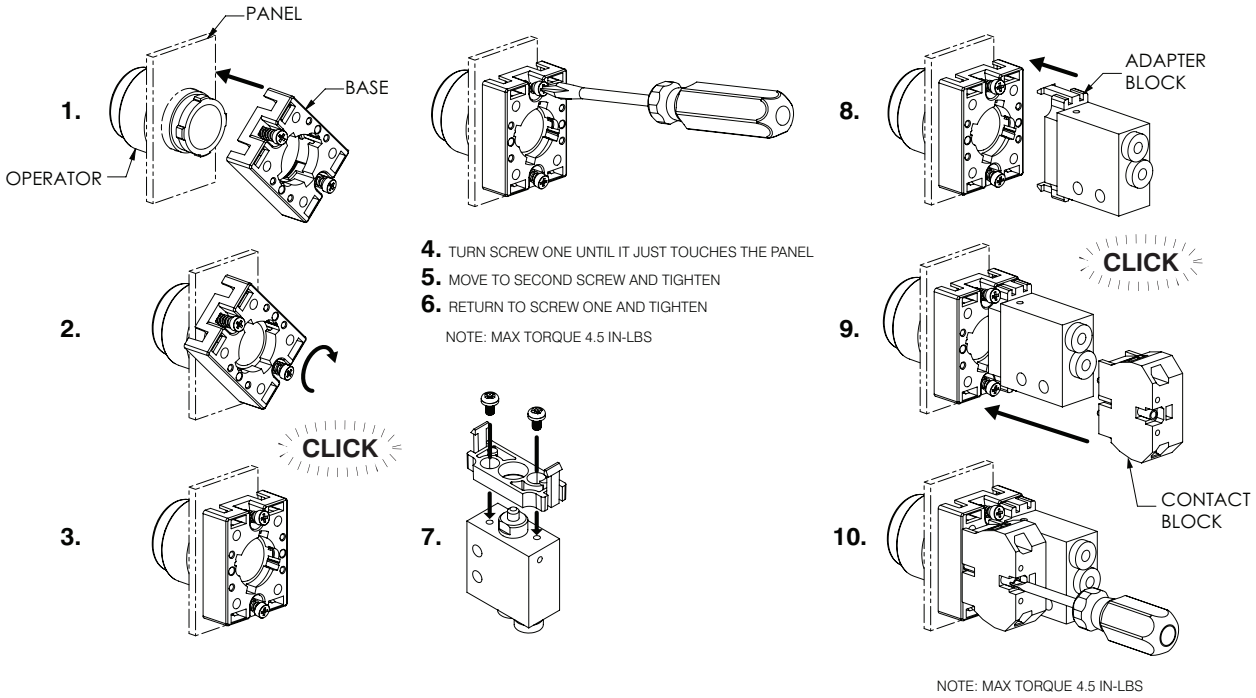
NITRA® pneumatic pushbuttons are all plastic and come with adapters to allow mounting of up to two 3-way valves, or one valve and one to three contact blocks. They fit in a standard 22.5 mm hole, just like electrical pushbuttons.

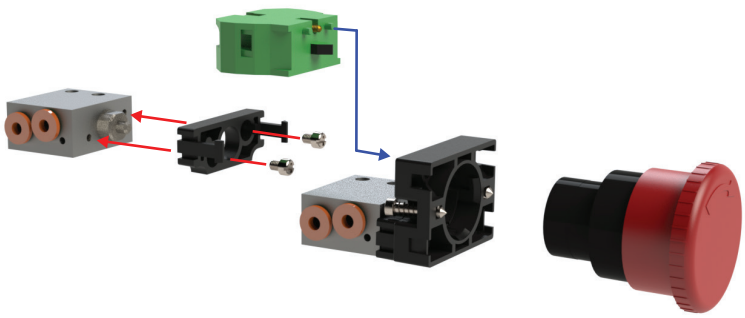
Features

- Plastic bezel and button
- Valve adapters and mounting screws included
- Valves sold separately
- Bases will work with GCX plastic operators and **only** the three ECX Series contact blocks shown below

Pushbutton Specifications	
Operating Temperature	-13 to 158 °F (-25 to +70 °C)
Storage Temperature	-40 to 176 °F (-40 to +80 °C)
Mechanical Life	1,000,000 cycles
Switching Cycles	3600 cycles/hr
Mounting (Valve)	(4) M3x5 valve mounting screws included
Protection	IP65 after installation
Approvals	CE

Adapter Block Installation







ECX1040-2



ECX1042-2



ECX1030-2

Pneumatic Pushbuttons, 22 mm

Momentary flush pushbuttons with protective plastic ring (30 mm diameter actuator)

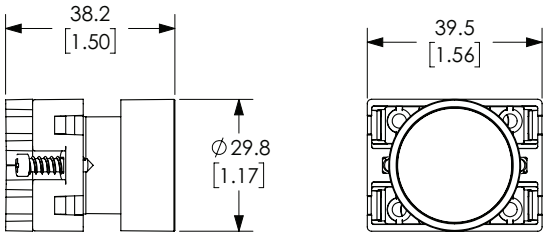


ECP3100

Part Number	Color	Description	Weight (lbs)	Price
ECP3100	Black	NITRA pneumatic pushbutton, IP65, 22 mm, momentary, plastic base, plastic bezel, black, operator only, Operator: black, flush, 30mm, round, plastic.	0.07	$3.25
ECP3101	Red	NITRA pneumatic pushbutton, IP65, 22 mm, momentary, plastic base, plastic bezel, black, operator only, Operator: red, flush, 30mm, round, plastic.	0.07	$3.25
ECP3102	Green	NITRA pneumatic pushbutton, IP65, 22 mm, momentary, plastic base, plastic bezel, black, operator only, Operator: green, flush, 30mm, round, plastic.	0.07	$3.25
ECP3103	Yellow	NITRA pneumatic pushbutton, IP65, 22 mm, momentary, plastic base, plastic bezel, black, operator only, Operator: yellow, flush, 30mm, round, plastic.	0.07	$3.25
ECP3104	Blue	NITRA pneumatic pushbutton, IP65, 22 mm, momentary, plastic base, plastic bezel, black, operator only, Operator: blue, flush, 30mm, round, plastic.	0.07	$3.25
ECP3105	White	NITRA pneumatic pushbutton, IP65, 22 mm, momentary, plastic base, plastic bezel, black, operator only, Operator: white, flush, 30mm, round, plastic.	0.07	$3.25
ECP3106	Red	NITRA pneumatic pushbutton, IP65, 22 mm, momentary, plastic base, plastic bezel, black, operator only, Operator: red, flush, 30mm, round, plastic, operator text "(O)".	0.07	$3.50
ECP3107	Green	NITRA pneumatic pushbutton, IP65, 22 mm, momentary, plastic base, plastic bezel, black, operator only, Operator: green, flush, 30mm, round, plastic, operator text "(I)".	0.07	$3.50

Dimensions

mm [inches]



Momentary extended pushbuttons with protective plastic ring (30mm diameter actuator)

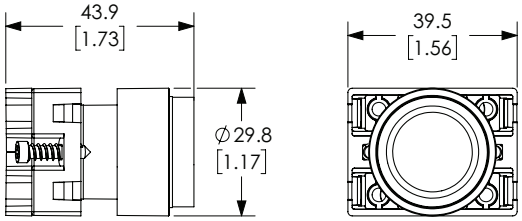


ECP3110

Part Number	Color	Description	Weight (lbs)	Price
ECP3110	Black	NITRA pneumatic pushbutton, IP65, 22 mm, momentary, plastic base, plastic bezel, black, operator only, Operator: black, extended, 30mm, round, plastic.	0.07	$3.25
ECP3111	Red	NITRA pneumatic pushbutton, IP65, 22 mm, momentary, plastic base, plastic bezel, black, operator only, Operator: red, extended, 30mm, round, plastic.	0.07	$3.25
ECP3112	Green	NITRA pneumatic pushbutton, IP65, 22 mm, momentary, plastic base, plastic bezel, black, operator only, Operator: green, extended, 30mm, round, plastic.	0.07	$3.25
ECP3113	Yellow	NITRA pneumatic pushbutton, IP65, 22 mm, momentary, plastic base, plastic bezel, black, operator only, Operator: yellow, extended, 30mm, round, plastic.	0.07	$3.25
ECP3114	Blue	NITRA pneumatic pushbutton, IP65, 22 mm, momentary, plastic base, plastic bezel, black, operator only, Operator: blue, extended, 30mm, round, plastic.	0.07	$3.25
ECP3115	White	NITRA pneumatic pushbutton, IP65, 22 mm, momentary, plastic base, plastic bezel, black, operator only, Operator: white, extended, 30mm, round, plastic.	0.07	$3.25

Dimensions

mm [inches]



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

Pneumatic Pushbuttons, 22 mm Mushroom

Mushroom pushbutton operator (40 mm & 60 mm diameter actuator)



ECP3131



ECP3133



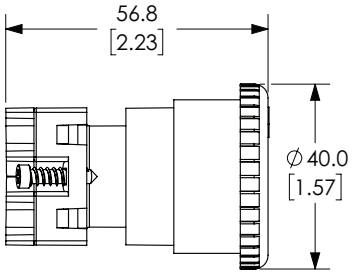
ECP3138

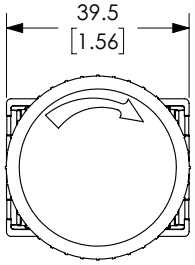
Part Number	Color	Description	Weight (lbs)	Price
ECP3131	Red	NITRA pneumatic pushbutton, IP65, 22 mm, twist-to-release, emergency stop, plastic base, plastic bezel, black, operator only, Operator: red, mushroom, 40mm, round, plastic.	0.1	$9.00
ECP3132	Black	NITRA pneumatic pushbutton, IP65, 22 mm, twist-to-release, plastic base, plastic bezel, black, operator only, Operator: black, mushroom, 60mm, round, plastic.	0.1	$11.50
ECP3133	Black	NITRA pneumatic pushbutton, IP65, 22 mm, momentary, plastic base, plastic bezel, black, operator only, Operator: black, mushroom, 60mm, round, plastic.	0.1	$12.50
ECP3134	Black	NITRA pneumatic pushbutton, IP65, 22 mm, momentary, plastic base, plastic bezel, black, operator only, Operator: black, mushroom, 40mm, round, plastic.	0.1	$6.75
ECP3135	Red	NITRA pneumatic pushbutton, IP65, 22 mm, momentary, plastic base, plastic bezel, black, operator only, Operator: red, mushroom, 40mm, round, plastic.	0.1	$6.75
ECP3136	Red	NITRA pneumatic pushbutton, IP65, 22 mm, twist-to-release, emergency stop, plastic base, plastic bezel, black, operator only, Operator: red, mushroom, 60mm, round, plastic.	0.1	$11.00
ECP3137	Red	NITRA pneumatic pushbutton, IP65, 22 mm, momentary, plastic base, plastic bezel, black, operator only, Operator: red, mushroom, 60mm, round, plastic.	0.1	$9.50
ECP3138	Yellow	NITRA pneumatic pushbutton, IP65, 22 mm, twist-to-release, plastic base, plastic bezel, black, operator only, Operator: yellow, mushroom, 60mm, round, plastic.	0.1	$11.50
ECP3139	Yellow	NITRA pneumatic pushbutton, IP65, 22 mm, momentary, plastic base, plastic bezel, black, operator only, Operator: yellow, mushroom, 40mm, round, plastic.	0.1	$6.75

Dimensions

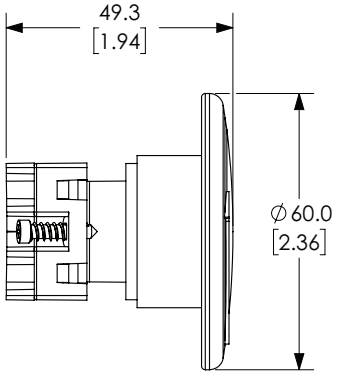
mm [inches]

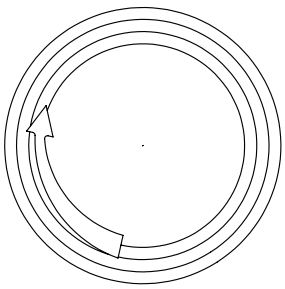
40mm Versions





60mm Versions





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

Pneumatic Pushbuttons, 22 mm Key Operated & Double Headed

Mushroom pushbutton operator - key operated (40 mm dia. actuator)



ECP3141

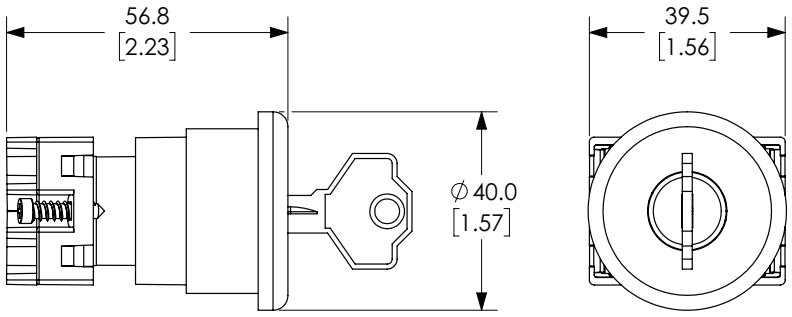
Part Number	Color	Description	Weight (lbs)	Price
ECP3141	Red	NITRA pneumatic pushbutton, IP65, 22 mm, key operated release, plastic base, plastic bezel, black, operator only, Operator: red, mushroom, 40 mm, round, plastic.	0.19	$13.50



Note: Keyed switches come with two keys. All plastic 22mm keyed switches are keyed the same. Replacement keys are available. Order part no. ECX1067-2 (pkg. of 2). Keys for plastic 22mm keyed switches are not compatible with Cutler-Hammer key switches.

Dimensions

mm [inches]



Double headed pushbutton operator



ECP3150

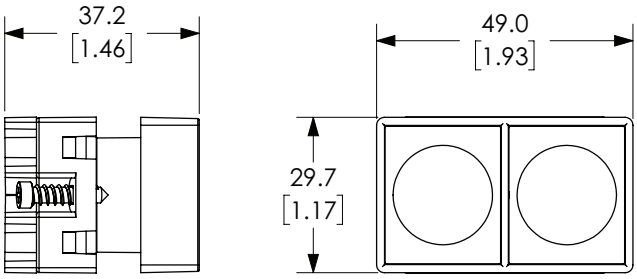


ECP3152

Part Number	Color	Description	Weight (lbs)	Price
ECP3150	Green/ Red	NITRA pneumatic pushbutton, IP65, 22 mm, momentary, plastic base, plastic bezel, black, operator only, Operator: green and red, double headed, rectangular, plastic.	0.08	$6.00
ECP3152	Green/ Red	NITRA pneumatic pushbutton, IP65, 22 mm, momentary, plastic base, plastic bezel, black, operator only, Operator: green and red, double headed, rectangular, plastic, operator text "(I) and (O)".	0.08	$6.75

Dimensions

mm [inches]



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

Pneumatic Selector Switches, 22 mm Lever

Knob selector switches



ECP3300

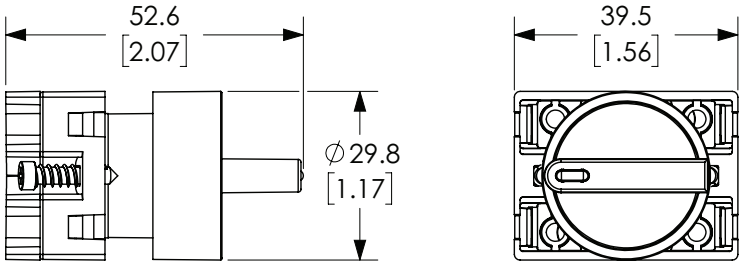
Part Number	Color	Description	Weight (lbs)	Price
ECP3300	Black	NITRA pneumatic selector switch, IP65, 22 mm, 2-position, maintained, plastic base, plastic bezel, operator only, Operator: black, knob, 30 mm, round, plastic.	0.09	$5.75
ECP3310	Black	NITRA pneumatic selector switch, IP65, 22 mm, 2-position, spring return from right, plastic base, plastic bezel, operator only, Operator: black, knob, 30 mm, round, plastic.	0.09	$7.00
ECP3320	Black	NITRA pneumatic selector switch, IP65, 22 mm, 3-position, maintained, plastic base, plastic bezel, operator only, Operator: black, knob, 30 mm, round, plastic.	0.09	$5.75
ECP3330	Black	NITRA pneumatic selector switch, IP65, 22 mm, 3-position, spring return to center from right or left, plastic base, plastic bezel, operator only, Operator: black, knob, 30 mm, round, plastic.	0.09	$6.75



ECP3320

Dimensions

mm [inches]



Long lever selector switches



ECP3350

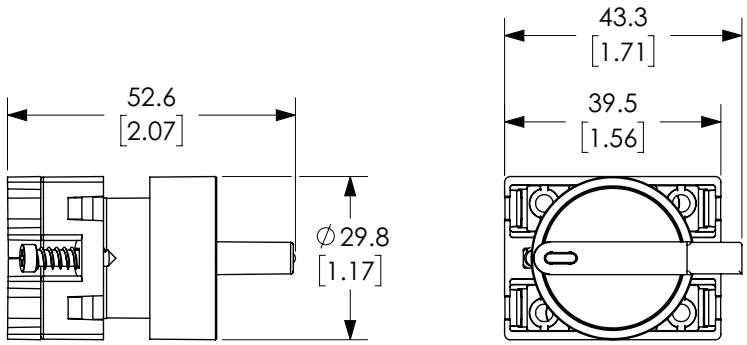
Part Number	Color	Description	Weight (lbs)	Price
ECP3350	Black	NITRA pneumatic selector switch, IP65, 22 mm, 2-position, maintained, plastic base, plastic bezel, operator only, Operator: black, lever, 30 mm, round, plastic.	0.09	$7.00
ECP3360	Black	NITRA pneumatic selector switch, IP65, 22 mm, 2-position, spring return from right, plastic base, plastic bezel, operator only, Operator: black, lever, 30 mm, round, plastic.	0.09	$7.25
ECP3370	Black	NITRA pneumatic selector switch, IP65, 22 mm, 3-position, maintained, plastic base, plastic bezel, operator only, Operator: black, lever, 30 mm, round, plastic.	0.09	$7.00
ECP3380	Black	NITRA pneumatic selector switch, IP65, 22 mm, 3-position, spring return to center from right or left, plastic base, plastic bezel, operator only, Operator: black, lever, 30 mm, round, plastic.	0.09	$7.25



ECP3370

Dimensions

mm [inches]



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

Pneumatic Key Selector Switches, 22 mm

Key selector switches



ECP3420

Part Number	Color	Description	Weight (lbs)	Price
ECP3420	Black	NITRA pneumatic selector switch, IP65, 22 mm, 2-position, maintained, key removable in all positions, plastic base, plastic bezel, operator only, Operator: black, key, 30 mm, round, plastic.	0.17	$13.50
ECP3430	Black	NITRA pneumatic selector switch, IP65, 22 mm, 2-position, spring return from right, key removable left position, plastic base, plastic bezel, operator only, Operator: black, key, 30 mm, round, plastic.	0.17	$13.50
ECP3470	Black	NITRA pneumatic selector switch, IP65, 22 mm, 3-position, maintained, key removable in all positions, plastic base, plastic bezel, operator only, Operator: black, key, 30 mm, round, plastic.	0.17	$12.50



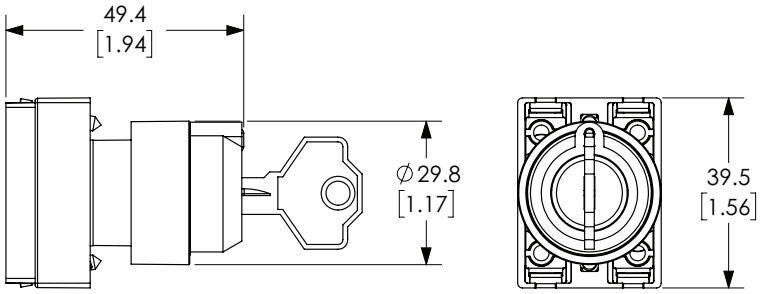
Note: Keyed switches come with two keys. All plastic 22 mm keyed switches are keyed the same. Replacement keys are available. Order part no. ECX1067-2 (pkg. of 2). Keys for plastic 22 mm keyed switches are not compatible with Cutler-Hammer key switches.



ECP3470

Dimensions

mm [inches]



Pneumatic switch accessory - support base with adapters

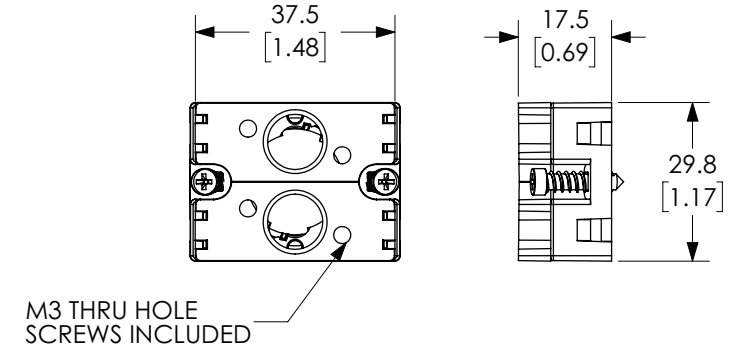


ECP3029-02

Part Number	Description	Weight (lbs)	Price
ECP3029-02	NITRA valve adapter block, replacement, plastic. For use with ECP series pneumatic pushbuttons.	0.03	$1.00

Dimensions

mm [inches]



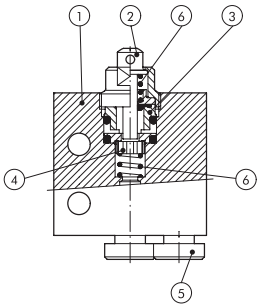
Note: base sold as three piece kit.

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

Pneumatic Manual Valves

Pneumatic Manual Valve Materials

1. Aluminum valve body
2. Chemically nickel-plated brass button
3. Brass distance plates
4. NBR gaskets
5. Stainless steel, brass and plastic push-to-connect cartridges
6. Stainless steel springs



Pneumatic Metal Plunger Valves

These pneumatic valves are used with Nitra pneumatic pushbuttons and switches

Valve Symbols

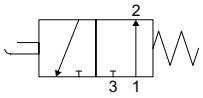


Diagram "A"

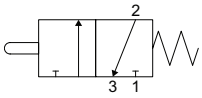


Diagram "B"

Features

- Available in normally open or normally closed
- 5/32" [4 mm] push-to-connect ports located on side or end



EVP-CA-PL

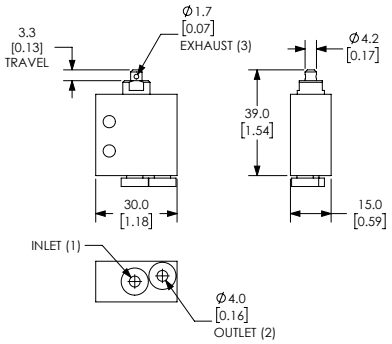


EVP-CS-PL

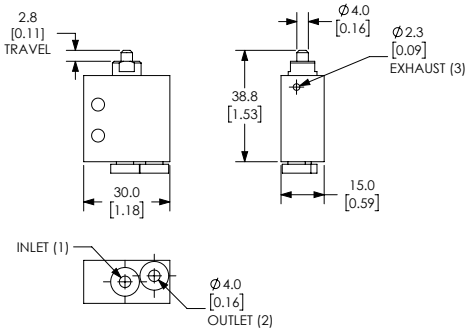
Specifications				
Models	***EVP-CA-PL***	***EVP-AA-PL***	***EVP-CS-PL***	***EVP-AS-PL***
Price	$25.00	$27.50	$22.50	$25.00
Weight (lbs)	0.1	0.1	0.1	0.1
Valve Type	2-port (3-way) 2-position			
Acting	Metal plunger, normally closed, spring return	Metal plunger, normally open, spring return	Metal plunger, normally closed, spring return	Metal plunger, normally open, spring return
Diagram	B	A	B	A
Port Size	Axial ports 5/32 in (4 mm)		Side ports 5/32 in (4 mm)	
Flow (Cv)	0.13	0.13	0.13	0.13
Fluid	Air (to be filtered by 40 µ filter element)			
Min. / Max. Pressure	7.25 to 145 psi (0.5 to 10 bar)			
Temperature	14 to 140 °F (-10 to +60 °C)			
Lubrication	Not Required			
Body	Aluminum			
Protection	IP65			

Dimensions

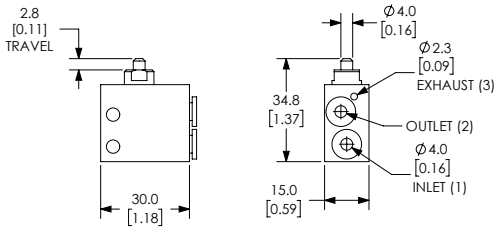
mm [inches]



EVP-CA-PL



EVP-AA-PL



EVP-CS-PL / EVP-AS-PL

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

Pneumatic Manual Valves

Pneumatic Metal Plunger Valves with metal roller

Features

- These valves function as pneumatic limit switches
- Available in normally open or normally closed
- 5/32" [4 mm] push-to-connect ports located on side or end



EVP-CA-R



EVP-AS-R

Valve Symbols

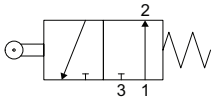


Diagram "C"

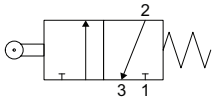
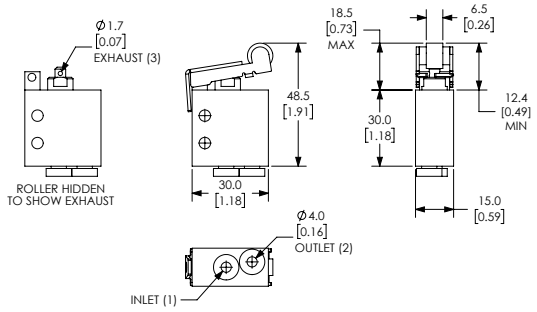


Diagram "D"

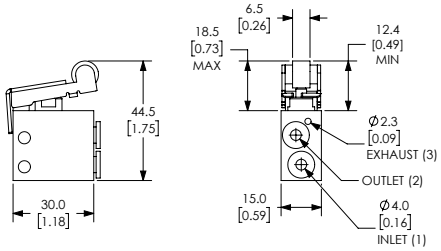
Specifications				
Models	***EVP-CA-R***	***EVP-AA-R***	***EVP-CS-R***	***EVP-AS-R***
Price	$29.00	$29.00	$27.00	$29.50
Weight (lbs)	0.1	0.1	0.1	0.1
Valve Type	2-port (3-way) 2-position			
Acting	Metal plunger with metal roller, normally closed, spring return	Metal plunger with metal roller, normally open, spring return	Metal plunger with metal roller, normally closed, spring return	Metal plunger with metal roller, normally open, spring return
Diagram	D	C	D	C
Port Size	Axial ports 5/32 in (4 mm)		Side ports 5/32 in (4 mm)	
Flow (Cv)	0.13	0.13	0.13	0.13
Fluid	Air (to be filtered by 40 µ filter element)			
Min. / Max. Pressure	7.25 to 145 psi (0.5 to 10 bar)			
Temperature	14 to 140 °F (-10 to +60 °C)			
Lubrication	Not Required			
Body	Aluminum			
Protection	IP65			

Dimensions

mm [inches]



EVP-CA-R / EVP-AA-R



EVP-CS-R / EVP-AS-R

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

Pneumatic Manual Valves

Pneumatic Metal Plunger Valves with one-way metal roller

Features

- These valves function as pneumatic limit switches
- Available in normally closed
- 5/32" [4 mm] push-to-connect ports located on side or end



EVP-CA-T

Valve Symbol

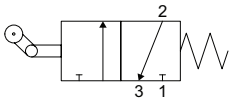


Diagram "E"

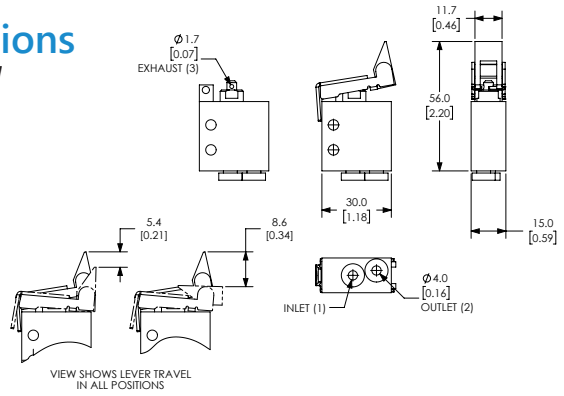


EVP-CS-T

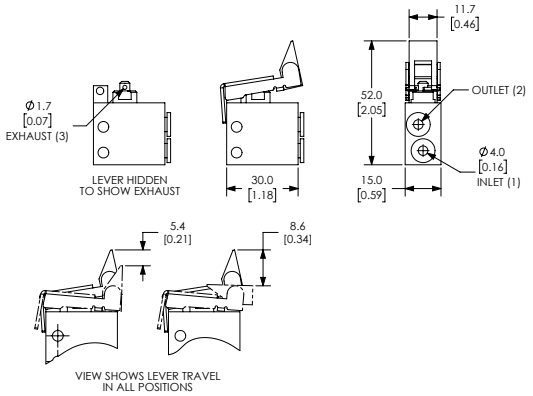
Specifications		
Models	***EVP-CA-T***	***EVP-CS-T***
Price	$30.50	$28.50
Weight (lbs)	0.1	0.1
Valve Type	2-port (3-way) 2-position	
Acting	Metal plunger with one -way metal roller, normally closed, spring return	Metal plunger with one-way metal roller, normally closed, spring return
Diagram	E	E
Port Size	Axial ports 5/32 in (4 mm)	Side ports 5/32 in (4 mm)
Flow (Cv)	0.13	0.13
Fluid	Air (to be filtered by 40 µ filter element)	
Min. / Max. Pressure	7.25 to 145 psi (0.5 to 10 bar)	
Temperature	14 to 140 °F (-10 to +60 °C)	
Lubrication	Not Required	
Body	Aluminum	
Protection	IP65	

Dimensions

mm [inches]



EVP-CA-T



EVP-CS-T

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

Pneumatic Manual Valves

Pneumatic Metal Plunger Valves for thru-panel mounting

Features

- These valves function as pneumatic limit switches
- Available in normally closed
- 5/32" [4 mm] push-to-connect ports located on side or end
- Fits 1/2" diameter hole in panel



EVP-CA-PL-PNL



EVP-CS-PL-PNL

Valve Symbol

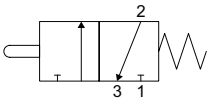
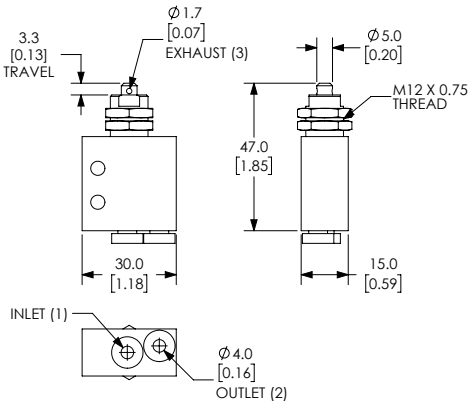


Diagram "B"

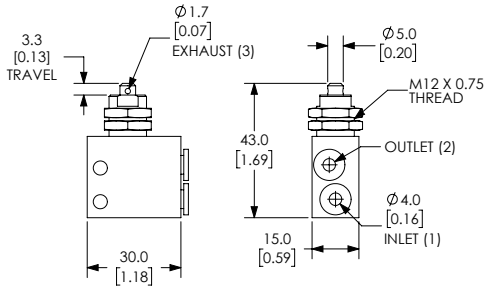
Specifications		
Models	***EVP-CA-PL-PNL***	***EVP-CS-PL-PNL***
Price	$27.00	$24.50
Weight (lbs)	0.1	0.1
Valve Type	2-port (3-way) 2-position	
Acting	Metal plunger, normally closed, spring return, through panel mount	Metal plunger, normally closed, spring return, through panel mount
Diagram	B	B
Port Size	Axial ports 5/32 in (4 mm)	Side ports 5/32 in (4 mm)
Flow (Cv)	0.13	0.13
Fluid	Air (to be filtered by 40µ filter element)	
Min. / Max. Pressure	7.25 to 145 psi (0.5 to 10 bar)	
Temperature	14 to 140 ºF (-10 to +60 ºC)	
Lubrication	Not Required	
Body	Aluminum	
Protection	IP65	

Dimensions

mm [inches]



EVP-CA-PL-PNL



EVP-CS-PL-PNL

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

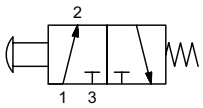
Pneumatic Manual Valves

Manual Valves, Normally Closed, Spring Return, Pushbutton

NITRA GVP manual valves offer a simple, convenient method for directional control and other pneumatic valve applications. All valves can be through panel mounted for a very clean looking operator interface. Valves with male NPT inlets can be threaded into MR series air manifolds to simplify supply connections.

- Swivel output port
- High flow
- Poppet design contributes to product life
- Made in USA

Diagram "A"



3-port, 2-position



Part No. GVP-3C2P-PB



Part No. GVP-3C1M2P-PB



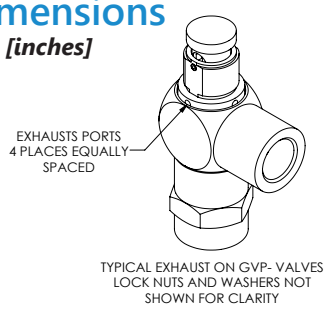
Part No. GVP-3C1F-PB

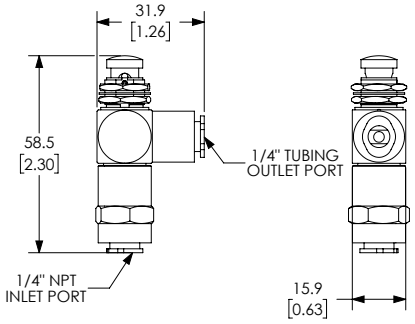
Specifications			
Models	***GVP-3C2P-PB***	***GVP-3C1M2P-PB***	***GVP-3C1F-PB***
Price	$39.50	$38.00	$34.00
Weight (lbs)	0.1	0.1	0.1
Valve Type	3-port (3-way) 2-position		
Acting	Pushbutton, normally closed, spring return, through panel mount		
Diagram	A	A	A
Port Size	90-degree ports, 1/4in tube inlet(s), 1/4in tube outlet(s), (1) vent hole exhaust(s)	90-degree ports, 1/8in male NPT inlet(s), 1/4in tube outlet(s), (1) vent hole exhaust(s)	90-degree ports, 1/8in female NPT inlet(s), 1/8in FNPT outlet(s), (1) vent hole exhaust(s)
Flow (Cv)	0.29	0.29	0.29
Fluid	Air (to be filtered by 40 µ filter element)		
Min. / Max. Pressure	0 to 125 psi (0 to 8.62 bar)		
Temperature	-20 to +160 ºF (-51 to +71 ºC)		
Lubrication	Not Required		
Body	Aluminum/ Anodize, Brass/ Electroless Nickel, Stainless Steel, Nylon, Acetal Copolymer, Buna-N		
Protection	IP65		

Dimensions

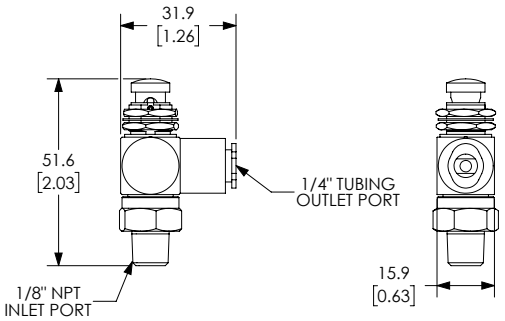
mm [inches]

Note: For panel mounting
· Maximum thickness 0.25"
· Diameter Ø 0.484 thru

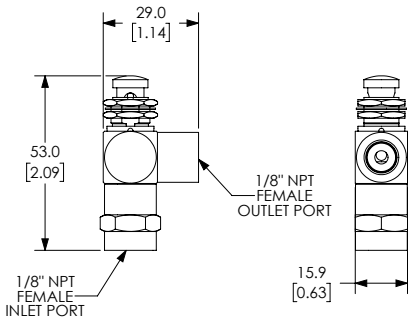




Part No. GVP-3C2P-PB



Part No. GVP-3C1M2P-PB



Part No. GVP-3C1F-PB

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

NITRA PNEUMATICS

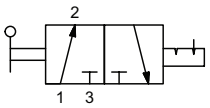
Pneumatic Manual Valves

Manual Valves, Normally Closed, Detented, Toggle

NITRA GVP manual valves offer a simple, convenient method for directional control and other pneumatic valve applications. All valves can be through panel mounted for a very clean looking
operator interface. Valves with male NPT inlets can be threaded into MR series air manifolds to simplify supply connections.

- Swivel output port
- High flow
- Poppet design contributes to product life
- Made in USA

Diagram "A"



3-port, 2-position



long



Part No. GVP-3C2P-TD



Part No. GVP-3C1M2P-TD



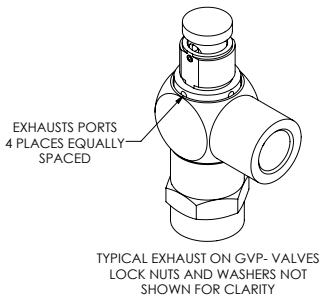
Part No. GVP-3C1F-TD

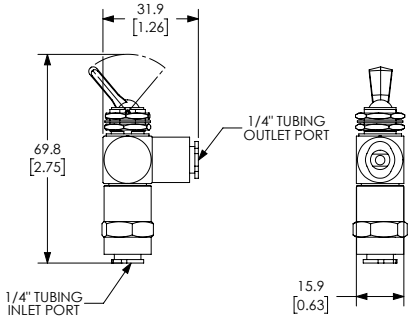
Specifications			
Models	***GVP-3C2P-TD***	***GVP-3C1M2P-TD***	***GVP-3C1F-TD***
Price	$41.00	$42.00	$40.00
Weight (lbs)	0.1	0.1	0.1
Valve Type	3-port (3-way) 2-position, NC		
Acting	Toggle style actuator, normally closed, detented, through panel mount		
Diagram	A	A	A
Port Size	90-degree ports, 1/4in tube inlet(s), 1/4in tube outlet(s), (1) vent hole exhaust(s)	90-degree ports, 1/8in male NPT inlet(s), 1/4in tube outlet(s), (1) vent hole exhaust(s)	90-degree ports, 1/8in female NPT inlet(s), 1/8in FNPT outlet(s), (1) vent hole exhaust(s)
Flow (Cv)	0.23	0.23	0.23
Fluid	Air (to be filtered by 40 µ filter element)		
Min. / Max. Pressure	0 to 125 psi (0 to 8.62 bar)		
Temperature	-20 to +160 ºF (-51 to +71 ºC)		
Lubrication	Not Required		
Body	Aluminum/ Anodize, Brass/ Electroless Nickel, Stainless Steel, Nylon, Acetal Copolymer, Buna-N		
Protection	IP65		

Dimensions

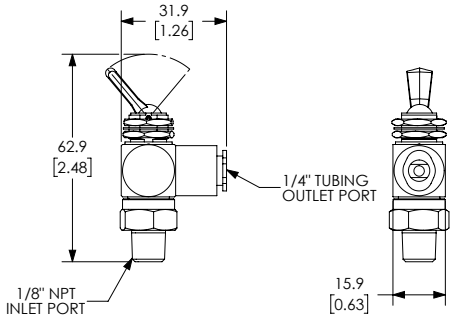
mm [inches]

Note: For panel mounting
- ***Maximum thickness 0.25"***
- ***Diameter Ø 0.484 thru***

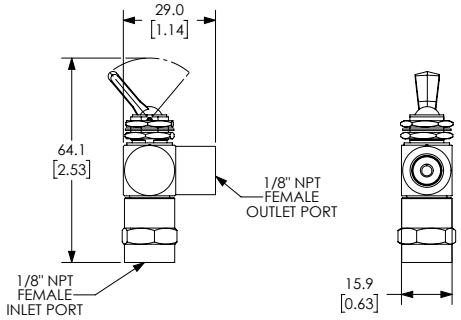




Part No. GVP-3C2P-TD



Part No. GVP-3C1M2P-TD



Part No. GVP-3C1F-TD

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

Pneumatic Manual Valves

303 Stainless Steel Single Stem Style



Part No. GVS-3C0F-TD-SS



Part No. GVS-3C0F-PB-SS

NITRA GVS manual valves offer a simple, convenient method for directional control and other pneumatic valve applications. All valves can be through panel mounted for a very clean looking operator interface.

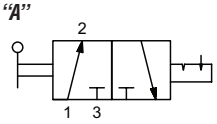
- Single stem design
- Stainless Steel construction
- High flow
- Made in USA

2 YEAR WARRANTY

MADE IN USA

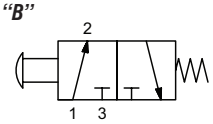
45-day Money-Back Guarantee 45 day

Diagram "A"



3-port, 2-position

Diagram "B"



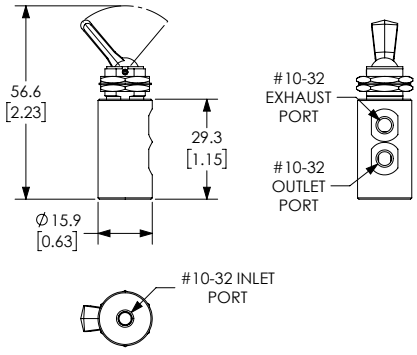
3-port, 2-position

Specifications		
Models	GVS-3C0F-TD-SS	GVS-3C0F-PB-SS
Price	$45.00	$43.50
Weight (lbs)	0.1	0.1
Valve Type	3-port (3-way) 2-position	
Acting	Toggle style actuator, normally closed, detented, through panel mount	Pushbutton, normally closed, spring return, through panel mount
Diagram	A	B
Port Size	90-degree ports, #10-32 female threaded inlet(s), #10-32 female threaded outlet(s), #10-32 female threaded exhaust(s)	90-degree ports, #10-32 female threaded inlet(s), #10-32 female threaded outlet(s), #10-32 female threaded exhaust(s)
Flow (Cv)	0.27	0.27
Fluid	Air (to be filtered by 40µ filter element)	
Min. / Max. Pressure	26" Hg to 125 psi (-0.8 to 8.62 bar)	
Temperature	-20 to +160 °F (-51 to +71 °C)	
Lubrication	Not Required	
Body	Brass/ Electroless Nickel, Aluminum/ Anodize, Stainless Steel, Buna-N	
Protection	IP65	

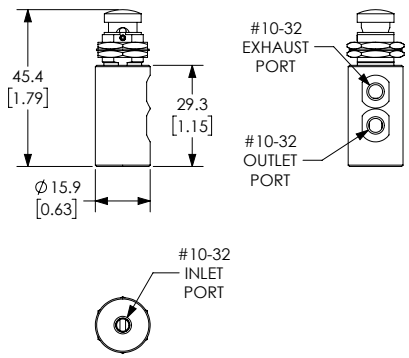
Dimensions

mm [inches]

Note: For panel mounting
- *Maximum thickness 0.25"*
- *Diameter Ø 0.484 thru*



Part No. GVS-3C0F-TD-SS



Part No. GVS-3C0F-PB-SS

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

Pneumatic Manual Valves

Aluminum Single Stem Style



Part No. GVS-3C1F-TD



Part No. GVS-3C1F-PB



Part No. GVS-3CS1F-TD

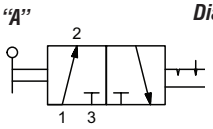


Part No. GVS-3CS1F-PB

NITRA GVS manual valves offer a simple, convenient method for directional control and other pneumatic valve applications. All valves can be through panel mounted for a very clean looking
operator interface.

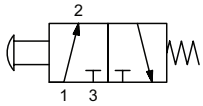
- Single stem design
- High flow
- Made in USA

Diagram "A"



3-port, 2-position

Diagram "B"



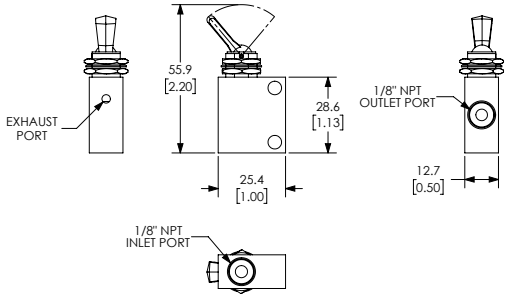
3-port, 2-position

Specifications				
Models	***GVS-3C1F-TD***	***GVS-3C1F-PB***	***GVS-3CS1F-TD***	***GVS-3CS1F-PB***
Price	$31.50	$27.50	$40.00	$38.00
Weight (lbs)	0.05	0.05	0.1	0.1
Valve Type	3-port (3-way) 2-position			
Acting	Toggle style actuator, normally closed, detented, through panel mount	Pushbutton, normally closed, spring return, through panel mount	Toggle style actuator, normally closed, detented, through panel mount	Pushbutton, normally closed, spring return, through panel mount
Diagram	A	B	A	B
Port Size	1/8in female NPT inlet(s), 1/8in female NPT outlet(s), vent hole exhaust	1/8in female NPT inlet(s), 1/8in female NPT outlet(s), vent hole exhaust	Side ports, 1/8in female NPT inlet(s), 1/8in female NPT outlet(s), 1/8in female NPT exhaust(s)	Side ports, 1/8in female NPT inlet(s), 1/8in female NPT outlet(s), 1/8in female NPT exhaust(s)
Flow (Cv)	0.42	0.42	0.42	0.42
Fluid	Air (to be filtered by 40 µ filter element)			
Min. / Max. Pressure	0 to 125 psi (0 to 8.62 bar)			
Temperature	-20 to +160 °F (-51 to +71 °C)			
Lubrication	Not Required			
Body	Aluminum/ Anodize, Brass/ Electroless Nickel, Acetal, Stainless Steel, Nylon, Brass, Buna-N			
Protection	IP65			

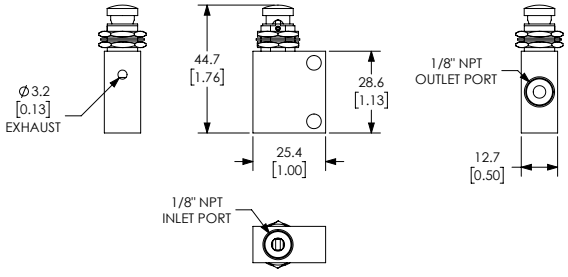
Dimensions

mm [inches]

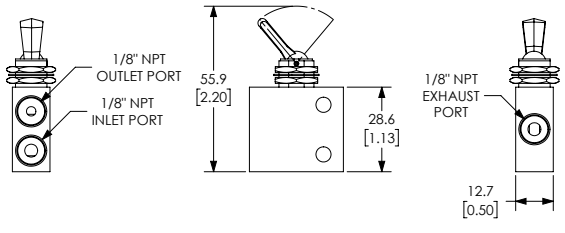
Note: For panel mounting
· Maximum thickness 0.25"
· Diameter Ø 0.484 thru



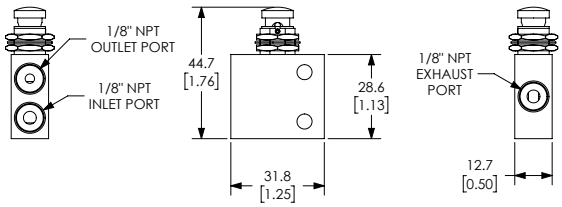
Part No. GVS-3C1F-TD



Part No. GVS-3C1F-PB



Part No. GVS-3CS1F-TD



Part No. GVS-3CS1F-PB

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

Pneumatic Manual Valves

Aluminum and Stainless Single Stem Style



Part No. GVS-331F-TD



Part No. GVS-331F-TM



Part No. GVS-231F-TD

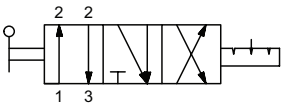


Part No. GVS-231F-TM

NITRA GVS manual valves offer the unique feature of two spool valves in one body with a common inlet port. Available as either (2) 3-way NC or (2) 2-way NC with a momentary or detented toggle operator. All valves can be through-panel mounted for a very clean looking operator interface.

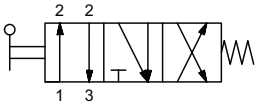
- Single stem design
- High flow
- Made in USA

Diagram "A"



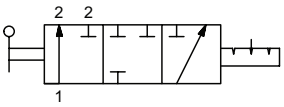
Dual 3-way, 3-position

Diagram "B"



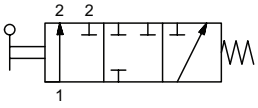
Dual 3-way, 3-position

Diagram "C"



Dual 2-way, 3-position

Diagram "D"



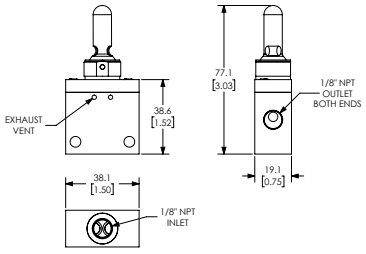
Dual 2-way, 3-position

Specifications				
Models	***GVS-331F-TD***	***GVS-331F-TM***	***GVS-231F-TD***	***GVS-231F-TM***
Price	$71.00	$71.00	$71.00	$75.00
Weight (lbs)	0.3	0.3	0.3	0.3
Valve Type	Dual 3-way, 3-position, center exhaust		Dual 2-way, 3-position, center closed	
Acting	Toggle style actuator, detented, through panel mount	Toggle style, spring return, through panel mount	Toggle style actuator, detented, through panel mount	Toggle style, spring return, through panel mount
Diagram	A	B	C	D
Port Size	1/8in female NPT inlet(s), 1/8in female NPT outlet(s), 1 vent hole exhaust(s)	1/8in female NPT inlet(s), 1/8in female NPT outlet(s), 1 vent hole exhaust(s)	1/8in female NPT inlet(s), 1/8in female NPT outlet(s)	1/8in female NPT inlet(s), 1/8in female NPT outlet(s)
Flow (Cv)	0.54	0.54	0.54	0.54
Fluid	Air (to be filtered by 40 µ filter element)			
Min. / Max. Pressure	0 to 125 psi (0 to 8.62 bar)			
Temperature	-20 to +160 ºF (-51 to +71 ºC)			
Lubrication	Not Required			
Body	Aluminum/ Anodize, Brass/ Electroless Nickel, Acetal, Stainless Steel, Nylon, Brass, Buna-N			
Protection	IP65			

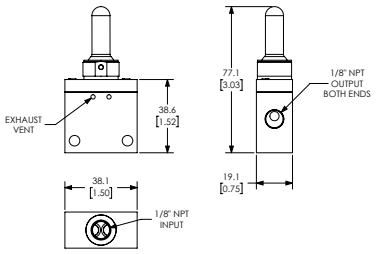
Dimensions

mm [inches]

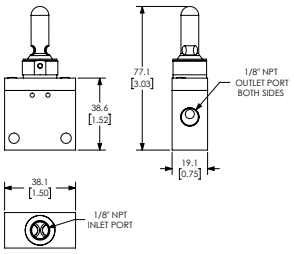
Note: For panel mounting
- *Maximum thickness 0.25"*
- *Diameter Ø 0.781 thru*



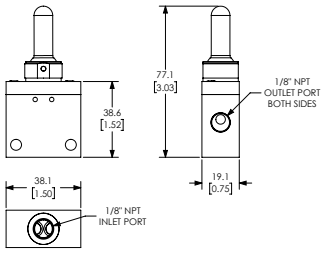
Part No. GVS-331F-TD



Part No. GVS-331F-TM



Part No. GVS-231F-TD



Part No. GVS-231F-TM

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

NITRA PNEUMATICS

Pneumatic Manual Valves

Heavy Duty Toggle and Pushbutton Valves



Part No. GVS-520F-PB



Part No. GVS-520F-TD



Part No. GVS-521F-PB

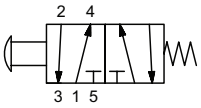


Part No. GVS-521F-TD

NITRA GVS manual valves offer a simple, convenient method for directional control and other pneumatic valve applications. All valves can be thru-panel mounted for a very clean looking operator interface.

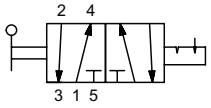
- Single stem design
- High flow
- Made in USA

Diagram "A"



5-port, 2-position

Diagram "B"



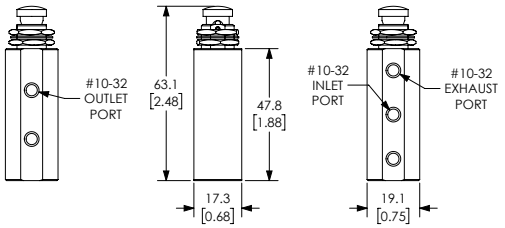
5-port, 2-position

Specifications				
Models	**GVS-520F-PB**	**GVS-520F-TD**	**GVS-521F-PB**	**GVS-521F-TD**
Price	$34.00	$36.00	$39.50	$41.00
Weight (lbs)	0.1	0.1	0.1	0.15
Valve Type	5-port (4-way) 2-position			
Acting	Pushbutton, spring return, through panel mount	Toggle style actuator, detented, through panel mount	Pushbutton, spring return, through panel mount	Toggle style actuator, detented, through panel mount
Diagram	A	B	A	B
Port Size	#10-32 female threaded inlet(s), #10-32 female threaded outlet(s), #10-32 female threaded exhaust(s)	#10-32 female threaded inlet(s), #10-32 female threaded outlet(s), #10-32 female threaded exhaust(s)	1/8in FNPT inlet(s), 1/8in FNPT outlet(s), 1/8in FNPT exhaust(s)	1/8in FNPT inlet(s), 1/8in FNPT outlet(s), 1/8in FNPT exhaust(s)
Flow (Cv)	0.23	0.23	0.37	0.37
Fluid	Air (to be filtered by 40µ filter element)			
Min. / Max. Pressure	0 to 125 psi (0 to 8.62 bar)			
Temperature	-20 to +160 ºF (-51 to +71 ºC)			
Lubrication	Not Required			
Body	Aluminum/ Anodize, Brass/ Electroless Nickel, Acetal, Stainless Steel, Nylon, Brass, Buna-N			
Protection	IP65			

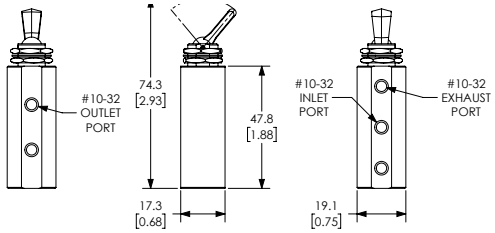
Dimensions

mm [inches]

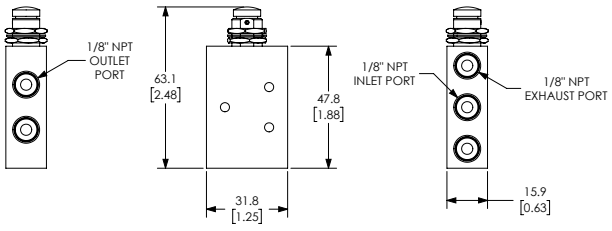
Note: For panel mounting
- *Maximum thickness 0.25"*
- *Diameter Ø 0.484 thru*



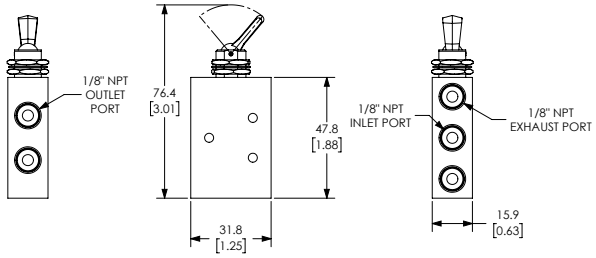
Part No. GVS-520F-PB



Part No. GVS-520F-TD



Part No. GVS-521F-PB



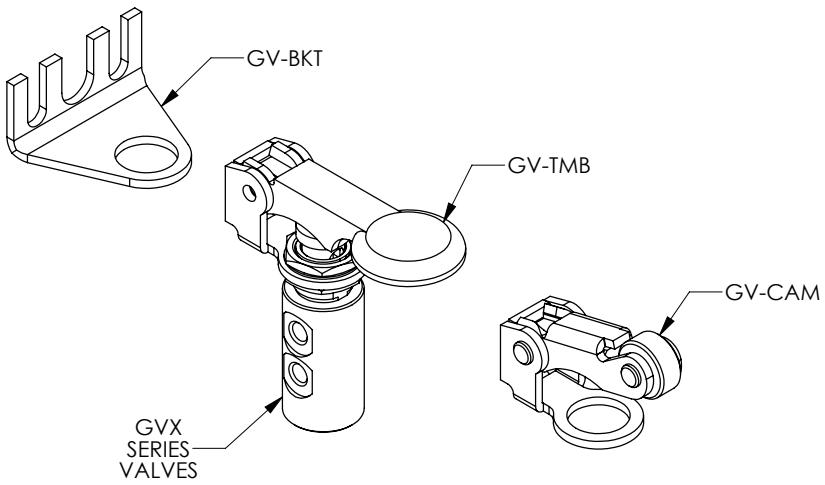
Part No. GVS-521F-TD

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

GVP and GVS Series Pneumatic Valve Accessories

Nitra Pneumatic GVP and GVS Series Pneumatic Valve Accessories				
Item	***Part No.***	***Description***	***Price***	***Weight (lbs)***
	***GV-BKT***	NITRA 90 degree mounting bracket, plated steel. For use with all GVP and GVS valves.	$3.50	0.5
	***GV-CAM***	NITRA roller cam actuator, plated steel, for use with all GVP and GVS valves. The roller is manufactured from durable acetal plastic. All cams feature a unique acetal pad which minimizes side load and virtually eliminates wear.	$16.00	0.5
	***GV-TMB***	NITRA thumb actuator, plated steel, for use with all GVP and GVS valves.	$15.00	0.5

Assembly Example



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

MVHA - Miniature Round Valves



Part No. 106002101021007



Part No. 106004005021007



Part No. 106004205021001

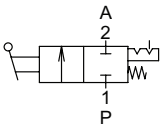


Diagram "A"

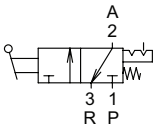


Diagram "B"

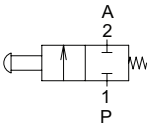


Diagram "C"

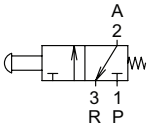


Diagram "D"

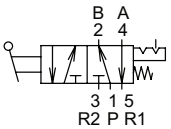


Diagram "E"

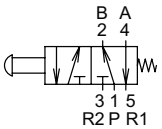


Diagram "F"

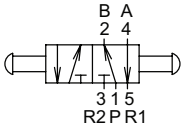


Diagram "G"

The MVHA series are ultra-lightweight, miniature hand-operated valves designed for space-critical pneumatic control applications. Available in 2-way (MVHA-2), 3-way (MVHA-3), and 4-way/5-port (MVHA-4) configurations, these compact valves operate across 0-130 psi with effective orifices for precise low-flow control. All series offer V-toggle for 80° lever operation or P-type push button for panel mounting via M12×0.8 threading, with the MVHA-4 additionally featuring a PP double push button option for independent positive control of both valve positions.

Features

- Ultra-lightweight design: Minimal weight with M5×0.8 ports, ideal for portable equipment, medical devices, and densely packed control panels
- Versatile port configurations: 2-way for simple on/off control, 3-way for single-acting directional control, or 4-way/5-port for complete double-acting cylinder control
- Multiple actuation options: V-toggle provides tactile 80° lever control; P-type offers compact push button operation; PP double push button (4-way only) enables independent control of extend/retract positions
- Compact panel mounting: Push button models feature M12×0.8 threading for secure installation with minimal panel space requirements, perfect for operator interfaces and control stations

MVHA - Miniature Round Valves

Part No.	106002001021004	106002101021007	106003003021013	106003103021013	106004005021007	106004105021008	106004205021001
Mfg. Part No.	MVHA-2V	MVHA-2P	MVHA-3V	MVHA-3P	MVHA-4V	MVHA-4P	MVHA-4PP
Price	$28.00	$27.00	$28.00	$27.00	$28.00	$26.00	$28.00
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF	PDF
Weight (lb)	0.09	0.09	0.09	0.09	0.16	0.16	0.18
Manufacturer Specs	PDF				PDF		
Valve Type	2-port (2-way)		2-port (3-way)		5-port (4-way)		
Positions	2						
Pneumatic Diagram	A	C	B	D	E	F	G
Valve Configuration	N/A	N.C.	N/A	N.C.	N/A	N/A	N/A
Operator	Toggle style actuator	Pushbutton	Toggle style actuator	Pushbutton	Toggle style actuator	Pushbutton	Double pushbutton
Acting	Detented	Spring return	Detented	Spring return	Detented	Spring return	N/A
Inlet Port Size	R1/8 male BSPT				M5 x 0.8 female ISO		
Outlet Port Size	M5 x 0.8 female ISO				(2) M5 x 0.8 female ISO		
Exhaust	N/A		Vent hole				
Flow (Cv)	0.1				0.11		
Media	Filtered air without lubrication; lubrication, if used, must be continuous						
Min. Operating Pressure	0 psi						
Max. Operating Pressure	130 psi						
Temperature	23 to 140°F (-5 to +60°C)						
Lubrication	ISO VG32 or equivalent						

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

MVHA - Miniature Square Valves



Part No. 106031103034001



Part No. 106041005034001



Part No. 106041205034001

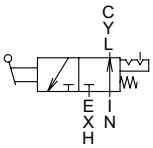


Diagram "A"

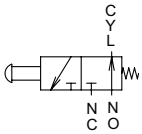


Diagram "B"

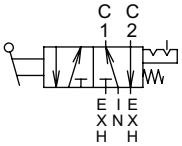


Diagram "D"

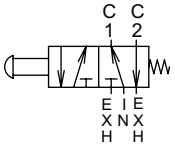


Diagram "E"

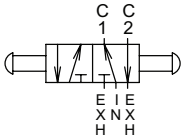


Diagram "F"



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

The MVHA-31 and MVHA-41 series are compact, manually operated hand valves designed for space-efficient pneumatic control with NPT threading. The 3-way MVHA-31 series provides directional control for single-acting cylinders, while the 4-way MVHA-41 series offers full double-acting cylinder control with separate exhaust ports. Both series operate across 0-130 psi and feature multiple actuation options: V-toggle for 80° lever operation, single push button (P), and double push button (PP - MVHA-41 only) for independent positive control of both valve positions.

Features

- Compact panel-mounted design: Push button models (31P/41P/41PP) feature M12×0.8 threading for secure panel installation, with 41PP offering dual M12×0.8 threads for side-by-side mounting flexibility
- Multiple actuation styles: V-toggle provides tactile 80° lever control with clear position indication; P-type single push button offers momentary vertical actuation; PP double push button enables independent extend/retract control
- Enhanced flow capacity: MVHA-31 for single-acting applications; MVHA-41 for faster double-acting cylinder speeds and higher flow requirements
- Separate exhaust ports: MVHA-41 series features independent exhaust ports for individual A and B side venting, enabling silencer installation or exhaust flow control for speed regulation
- (2) M5x0.8 slotted plugs are provided with the MVHA-41 valves. These can serve as simple flow controls on the exhaust

MVHA - Miniature Square Valves					
Part No.	***106031003034001***	***106031103034001***	***106041005034001***	***106041105034002***	***106041205034001***
Mfg. Part No.	***MVHA-31V-NPT***	***MVHA-31P-NPT***	***MVHA-41V-NPT***	***MVHA-41P-NPT***	***MVHA-41PP-NPT***
Price	$36.00	$34.00	$41.00	$41.00	$48.00
Drawing Link	PDF	PDF	PDF	PDF	PDF
Weight (lb)	0.14	0.13	0.17	0.16	0.18
Manufacturer Specs	PDF		PDF		
Valve Type	3-port (3-way)		5-port (4-way)		
Positions	2				
Pneumatic Diagram	A	B	C	D	E
Valve Configuration	N/A	N.O./N.C.	N/A	N/A	N/A
Operator	Toggle style actuator	Pushbutton	Toggle style actuator	Pushbutton	Double pushbutton
Acting	Detented	Spring return	Detented	Spring return	N/A
Inlet Port Size	1/8" FNPT				
Outlet Port Size	1/8" FNPT		(2) 1/8" FNPT		
Exhaust	1/8" FNPT		(2) M5 x 0.8 female ISO		
Flow (Cv)	0.25		0.31		
Media	Filtered air without lubrication; lubrication, if used, must be continuous				
Min. Operating Pressure	0 psi				
Max. Operating Pressure	130 psi				
Temperature	23 to 140 °F (-5 to +60 °C)				
Lubrication	ISO VG32 or equivalent				

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).

Exhaust Silencers

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

Features

- Inch and metric sizes available
- Bronze cone and flat styles
- Plastic cylindrical
- Maximum pressure = 150 psi (10 bar)



SBC Series

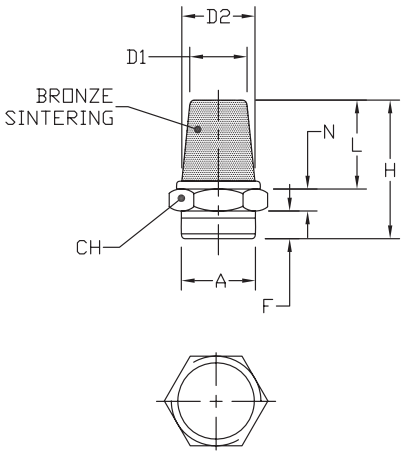


SBF Series



SPL Series

SBC Silencers



NITRA™ Bronze Cone Silencers

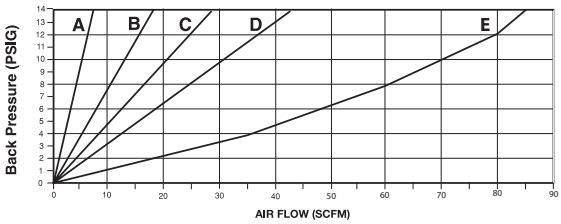
Inch Sizes - dimensions in inches [mm]

Part No.	Price	A	CH	D1	D2	F	H	L	N	Package Weight (lb)	Qty. per pack
SBC-18N	$3.50	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	$4.75	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	$6.75	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	$12.50	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	$2.50	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	$3.50	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	$4.00	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	$6.00	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	$10.50	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

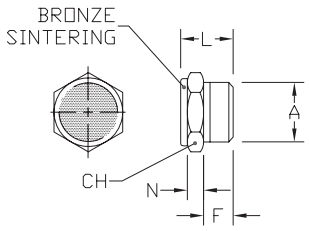
Bronze Cone Silencers

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]

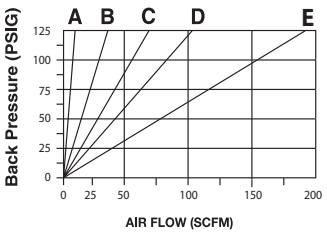
Part No.	Price	A	CH	F	L	N	Package Weight (lb)	Qty. per pack
SBF-18N	$3.50	MNPT 1/8	0.47 [12.0]	0.24 [6.0]	0.47 [12.0]	0.16 [4.0]	0.01	2
SBF-14N	$4.25	MNPT 1/4	0.67 [17.0]	0.32 [8.0]	0.59 [15.0]	0.16 [4.0]	0.01	
SBF-38N	$7.50	MNPT 3/8	0.75 [19.0]	0.35 [9.0]	0.67 [17.0]	0.20 [5.0]	0.05	
SBF-12N	$11.00	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	$2.50	M5	0.31 [8.0]	0.20 [5.0]	0.35 [9.0]	0.12 [3.0]	0.01	2
SBF-18R	$3.50	R 1/8	0.47 [12.0]	0.24 [6.0]	0.47 [12.0]	0.16 [4.0]	0.01	
SBF-14R	$4.00	R 1/4	0.67 [17.0]	0.32 [8.0]	0.59 [15.0]	0.16 [4.0]	0.01	
SBF-38R	$6.25	R 3/8	0.75 [19.0]	0.35 [9.0]	0.67 [17.0]	0.20 [5.0]	0.05	
SBF-12R	$11.00	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

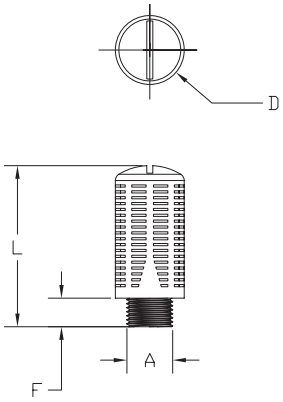
Bronze Flat Silencers

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 80 PSI (5.5 bar).

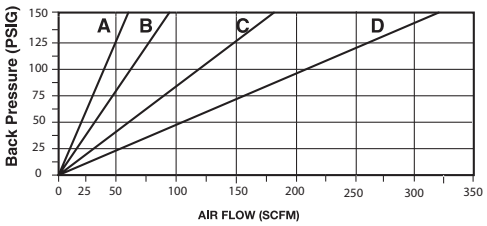
NITRA™ Plastic Exhaust Silencers

Part No.	*Price*	*A*	*D*	*L*	*F*	*Package Weight (lbs)*	*Qty. per pack*
Inch Sizes - dimensions in inches [mm]							
SPL-18N	$2.75	MNPT 1/8	0.55 [13.8]	1.28 [32.4]	0.33 [8.3]	0.02	2
SPL-14N	$3.00	MNPT 1/4	0.68 [17.3]	1.68 [42.5]	0.39 [9.9]	0.03	
SPL-38N	$3.50	MNPT 3/8	0.87 [22.0]	2.10 [53.4]	0.40 [10.0]	0.06	
SPL-12N	$3.50	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	$2.75	R 1/8	0.60 [15.2]	1.33 [33.7]	0.24 [6.1]	0.02	2
SPL-14R	$3.00	R 1/4	0.60 [18.8]	1.60 [40.6]	0.31 [7.7]	0.03	
SPL-38R	$3.50	R 3/8	0.94 [24.0]	2.20 [55.9]	0.39 [9.9]	0.06	
SPL-12R	$3.50	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

Exhaust Silencers



Part No. W0970530074

Plastic exhaust silencers are a cost effective and easy way to reduce noise in a pneumatic system. Thread into exhaust ports on valves to control noise and protect valve internals

- Reduction of noise - 35dB

Metal Work Exhaust Silencer Selection

Part Number	Connection	Cv	Material	Max. Operating Pressure	Parts per Package	Drawing Link	Package Weight (lbs)	Price
W0970530072	1/8in male BSPP	0.7	Acetal	174 psi [12 bar]	2	PDF	0.02	$2.25
W0970530073	1/4in male BSPP	1				PDF	0.02	$2.75
W0970530074	3/8in male BSPP	1.7				PDF	0.04	$5.00
W0970530075	1/2in male BSPP	1.5				PDF	0.05	$5.00
W0970530072U	1/8in male NPT	0.7				PDF	0.02	$2.25
W0970530073U	1/4in male NPT	1				PDF	0.03	$2.75
W0970530074U	3/8in male NPT	1.7				PDF	0.06	$5.00
W0970530075U	1/2in male NPT	1.5				PDF	0.06	$5.00

Flow Characteristics

