



H-Series 12mm Pneumatic Cylinders

12mm Bore, Double Acting with Magnet



Part No. [H12M005MD-M](#)

12mm Bore H-Series Cylinders - Double Acting w/ Magnet						
Part Number	Stroke Length (mm)	"A" (mm [in])	"B" (mm [in])	Port Size	Weight (lbs)	Price
H12M005MD-M	5	36.5 [1.44]	33.0 [1.30]	M5x0.8	0.1	\$38.00
H12M010MD-M	10	41.5 [1.63]	38.0 [1.50]		0.2	\$40.50
H12M015MD-M	15	46.5 [1.83]	43.0 [1.69]		0.2	\$41.50
H12M020MD-M	20	51.5 [2.03]	48.0 [1.89]		0.2	\$43.00
H12M025MD-M	25	56.5 [2.22]	53.0 [2.09]		0.2	\$44.00
H12M030MD-M	30	61.5 [2.42]	58.0 [2.28]		0.2	\$45.50
H12M040MD-M	40	71.5 [2.81]	68.0 [2.68]		0.3	\$52.00
H12M050MD-M	50	81.5 [3.21]	78.0 [3.07]		0.7	\$59.00

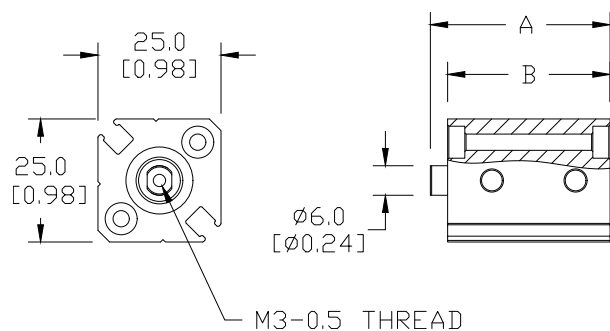
Mounting Accessories

Rod Clevis	HRC-12M
Rod Male Adapter	HMA-12M
Female Rear Clevis	HFC-12M

Note: For full details see Accessories at the end of the section.

Dimensions

mm [inches]

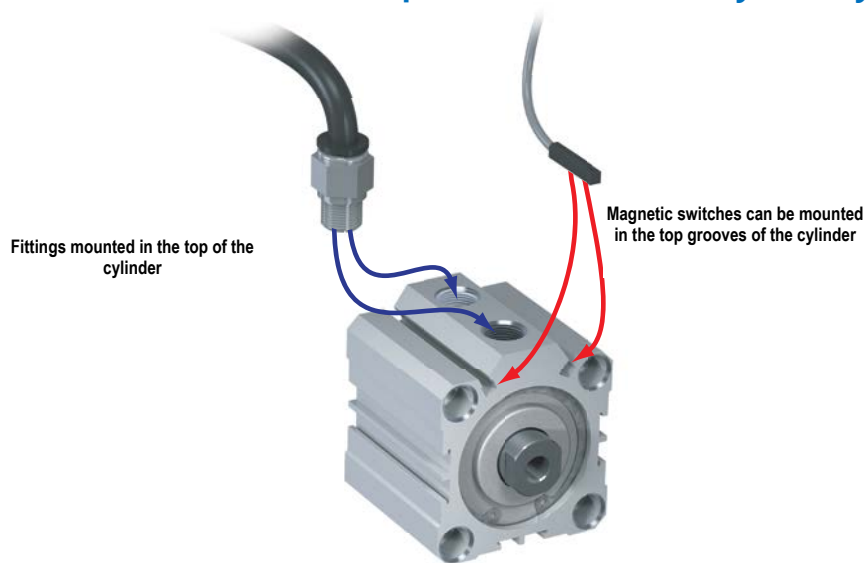


See our website www.AutomationDirect.com for complete Engineering drawings.



H-Series Pneumatic Cylinders

NITRA Pneumatic Compact Extruded Body Air Cylinders



Click on the thumbnail or go to <https://www.automationdirect.com/VID-PN-0052> for a short video on pneumatic cylinder selection and purchasing.

The NITRA Pneumatics H-Series compact extruded body cylinders includes bore sizes from 12mm to 100mm and stroke lengths from 5mm to 100mm to meet a broad range of limited space applications. These high quality cylinders are constructed with hard anodized extruded aluminum bodies and end caps. Cylinder switch

mounting slots are built in to the bodies. All sizes include a magnet in the piston and a chrome plated steel piston rod. Interchangeable with other common brands, these cylinders are factory lubricated for optimum performance and long, reliable life.

Features

- Ten bore sizes
- Eight stroke lengths
- Interchangeable with other popular brands
- Work with 4mm square T-slot cylinder switches
- Nitrile / Buna-N O-rings



Click the icon or scan the QR code to be taken to https://www.automationdirect.com/pneumatics/cylinders/cylinder_sizing for additional information regarding cylinder sizing & force.

H-Series Cylinder Specifications

Bore Size (mm)	12	16	20	25	32	40	50	63	80	100
Action	Double acting									
Fluid	Air (clean/dry)									
Temperature Range	-4 to 176°F (-20 to 80°C)									
Pressure Range	14 to 145 psi (0.96 to 9.9 bar)									
Proof Pressure	215psi (14.8 bar)									
Lubrication	Not required									
Cushion Type	Bumper - Polyurethane (ø12 - ø25); Buna-N (ø32 - ø100)									
Speed Range	30 to 500 mm/s									
Stroke Tolerance	+1.0 / -0 mm									
Port Size	M5x0.8				1/8-NPT		1/4-NPT		3/8-NPT	
Extend Force @ 87psi (lbs.)	15	27	42	66	108	169	264	420	678	1059
Retract Force @ 87psi (lbs.)	11	20	32	51	81	142	222	378	611	950
Sensor Switch Compatibility	CPS9H Series Switches									



H-Series Pneumatic Cylinder Accessories

H-Series Pneumatic Cylinder Accessories				
Part Number	Description	Pcs/Pkg	Wt (lb)	Price
<u>HRC-12M</u>	NITRA cylinder rod clevis, plated steel, M5 x 0.8 thread. For use with 12 mm H-series cylinders. Male adapter and hex nut included.	1	0.1	\$14.50
<u>HRC-16M</u>	NITRA cylinder rod clevis, plated steel, M6 x 1.0 thread. For use with 16 mm H-series cylinders. Male adapter and hex nut included.	1	0.1	\$15.50
<u>HRC-20M</u>	NITRA cylinder rod clevis, plated steel, M8 x 1.25 thread. For use with 20 mm H-series cylinders. Male adapter and hex nut included.	1	0.1	\$16.00
<u>HRC-25M</u>	NITRA cylinder rod clevis, plated steel, M10 x 1.25 thread. For use with 25 mm H-series cylinders. Male adapter and hex nut included.	1	0.2	\$18.50
<u>HRC-32M</u>	NITRA cylinder rod clevis, cast iron, M14 x 1.5 thread. For use with 32 mm H-series cylinders. Male adapter and hex nut included.	1	0.3	\$20.50
<u>HRC-40M</u>	NITRA cylinder rod clevis, cast iron, M14 x 1.5 thread. For use with 40 mm H-series cylinders. Male adapter and hex nut included.	1	0.3	\$20.50
<u>HRC-50M</u>	NITRA cylinder rod clevis, cast iron, M18 x 1.5 thread. For use with 50 mm H-series cylinders. Male adapter and hex nut included.	1	0.6	\$26.00
<u>HRC-63M</u>	NITRA cylinder rod clevis, cast iron, M18 x 1.5 thread. For use with 63 mm H-series cylinders. Male adapter and hex nut included.	1	0.6	\$26.50
<u>HRC-80M</u>	NITRA cylinder rod clevis, cast iron, M22 x 1.5 thread. For use with 80 mm H-series cylinders. Male adapter and hex nut included.	1	1.5	\$36.50
<u>HRC-100M</u>	NITRA cylinder rod clevis, cast iron, M26 x 1.5 thread. For use with 100 mm H-series cylinders. Male adapter and hex nut included.	1	2.0	\$43.00
<u>HMA-12M</u>	NITRA cylinder male adapter, stainless steel, M5 x 0.8 thread. For use with 12 mm H-series cylinders. Hex nut included.	1	0.1	\$9.75
<u>HMA-16M</u>	NITRA cylinder male adapter, stainless steel, M6 x 1.0 thread. For use with 16 mm H-series cylinders. Hex nut included.	1	0.1	\$9.75
<u>HMA-20M</u>	NITRA cylinder male adapter, stainless steel, M8 x 1.25 thread. For use with 20 mm H-series cylinders. Hex nut included.	1	0.1	\$10.00
<u>HMA-25M</u>	NITRA cylinder male adapter, stainless steel, M10 x 1.25 thread. For use with 25 mm H-series cylinders. Hex nut included.	1	0.1	\$10.50
<u>HMA-32M</u>	NITRA cylinder male adapter, stainless steel, M14 x 1.5 thread. For use with 32 mm H-series cylinders. Hex nut included.	1	0.1	\$11.00
<u>HMA-40M</u>	NITRA cylinder male adapter, stainless steel, M14 x 1.5 thread. For use with 40 mm H-series cylinders. Hex nut included.	1	0.1	\$11.00
<u>HMA-50M</u>	NITRA cylinder male adapter, stainless steel, M18 x 1.5 thread. For use with 50 mm H-series cylinders. Hex nut included.	1	0.2	\$12.50
<u>HMA-63M</u>	NITRA cylinder male adapter, stainless steel, M18 x 1.5 thread. For use with 63 mm H-series cylinders. Hex nut included.	1	0.2	\$12.50
<u>HMA-80M</u>	NITRA cylinder male adapter, stainless steel, M22 x 1.5 thread. For use with 80 mm H-series cylinders. Hex nut included.	1	0.4	\$16.00
<u>HMA-100M</u>	NITRA cylinder male adapter, stainless steel, M26 x 1.5 thread. For use with 100 mm H-series cylinders. Hex nut included.	1	0.5	\$19.50
<u>HFC-12M</u>	NITRA cylinder rear clevis bracket, aluminum. For use with 12 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.1	\$14.50
<u>HFC-16M</u>	NITRA cylinder rear clevis bracket, aluminum. For use with 16 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.1	\$15.00
<u>HFC-20M</u>	NITRA cylinder rear clevis bracket, aluminum. For use with 20 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.2	\$17.00
<u>HFC-25M</u>	NITRA cylinder rear clevis bracket, aluminum. For use with 25 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.2	\$20.00
<u>HFC-32M</u>	NITRA cylinder rear clevis bracket, cast iron. For use with 32 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.4	\$23.50
<u>HFC-40M</u>	NITRA cylinder rear clevis bracket, cast iron. For use with 40 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.4	\$23.50
<u>HFC-50M</u>	NITRA cylinder rear clevis bracket, cast iron. For use with 50 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.8	\$32.50
<u>HFC-63M</u>	NITRA cylinder rear clevis bracket, cast iron. For use with 63 mm H-series cylinders. Mounting hardware and pivot pin included.	1	1.3	\$32.50
<u>HFC-80M</u>	NITRA cylinder rear clevis bracket, cast iron. For use with 80 mm H-series cylinders. Mounting hardware and pivot pin included.	1	2.3	\$43.50
<u>HFC-100M</u>	NITRA cylinder rear clevis bracket, cast iron. For use with 100 mm H-series cylinders. Mounting hardware and pivot pin included.	1	3.8	\$48.50



H-Series Pneumatic Cylinder Accessories

Rod Clevis

Part no. [HRC-20M](#)Part no. [HRC-32M](#)

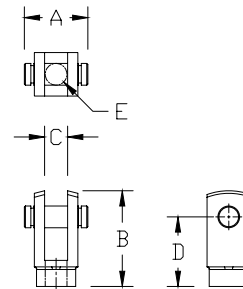
Note: Comes with Pivot Pin installed. Includes Rod Male Adapter (see below)

Rod Clevis Dimension Table

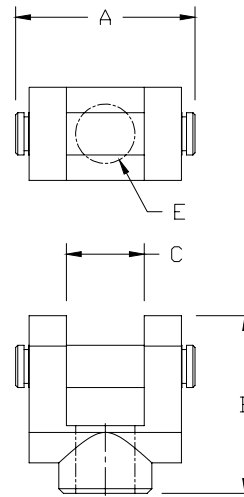
Part #	A	B	C	D	E
HRC-12M	14.6 [0.57]	22.0 [0.87]	5.3 [0.21]	16.0 [0.63]	M5x0.8
HRC-16M	16.8 [0.66]	28.0 [1.10]	6.6 [0.26]	21.0 [0.83]	M6x1.0
HRC-20M	21.0 [0.83]	34.0 [1.34]	8.3 [0.33]	25.0 [0.98]	M8x1.25
HRC-25M	26.4 [1.04]	41.0 [1.61]	10.3 [0.41]	30.0 [1.18]	M10x1.5
HRC-32M	42.4 [1.67]	42.0 [1.65]	18.4 [0.72]	30.0 [1.18]	M14x1.5
HRC-40M	42.4 [1.67]	42.0 [1.65]	18.4 [0.72]	30.0 [1.18]	M14x1.5
HRC-50M	50.4 [1.98]	56.0 [2.20]	22.4 [0.88]	40.0 [1.57]	M18x1.5
HRC-63M	50.4 [1.98]	56.0 [2.20]	22.4 [0.88]	40.0 [1.57]	M18x1.5
HRC-80M	63.6 [2.50]	71.0 [2.80]	28.4 [1.12]	50.0 [1.97]	M22x1.5
HRC-100M	72.6 [2.86]	79.0 [3.11]	32.4 [1.28]	55.0 [2.17]	M26x1.5

Dimensions

mm [inches]



HRC-12M - HRC-25M



HRC-32M - HRC-100M

Rod Male Adapter

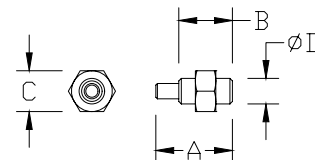
Part no. [HMA-32M](#)

Rod Male Adapter Dimension Table

Part #	A	B	C	D
HMA-12M	15.0 [0.59]	10.5 [0.41]	8.0 [0.31]	M5x0.8
HMA-16M	18.0 [0.71]	12.0 [0.47]	10.0 [0.39]	M6x1.0
HMA-20M	19.5 [0.77]	14.0 [0.55]	12.0 [0.47]	M8x1.25
HMA-25M	26.5 [1.04]	17.5 [0.69]	17.0 [0.67]	M10x1.25
HMA-32M	31.5 [1.24]	21.5 [0.85]	19.0 [0.75]	M14x1.5
HMA-40M	31.5 [1.24]	21.5 [0.85]	19.0 [0.75]	M14x1.5
HMA-50M	36.5 [1.44]	25.5 [1.00]	27.0 [1.06]	M18x1.5
HMA-63M	36.5 [1.44]	25.5 [1.00]	27.0 [1.06]	M18x1.5
HMA-80M	49.5 [1.95]	33.5 [1.32]	32.0 [1.26]	M22x1.5
HMA-100M	51.5 [2.03]	31.5 [1.24]	36.0 [1.42]	M26x1.5

Dimensions

mm [inches]



HMA-12M - HMA-100M

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



H-Series Pneumatic Cylinder Accessories

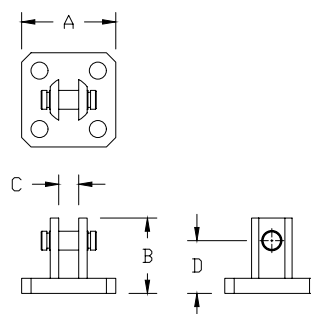
Female Rear Clevis

Part no. HFC-20MPart no. HFC-32M

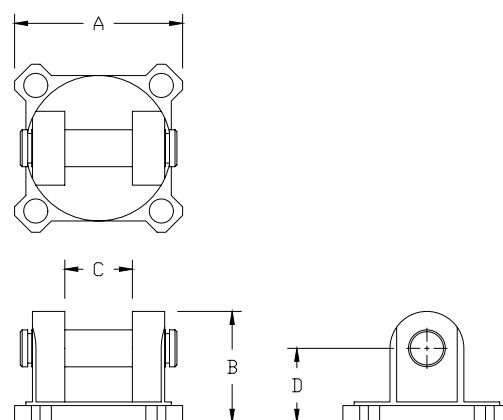
comes with Pivot Pin installed. Mount-
ware Included.

Dimensions

mm [inches]



HFC-12M - HFC-25M



HFC-32M - HFC-100M

Female Rear Clevis Dimension Table				
Part #	A	B	C	D
<u>HFC-12M</u>	25.0 [0.98]	20.0 [0.79]	5.3 [0.21]	14.0 [0.55]
<u>HFC-16M</u>	29.0 [1.14]	21.0 [0.83]	6.8 [0.27]	15.0 [0.59]
<u>HFC-20M</u>	36.0 [1.42]	27.0 [1.06]	8.3 [0.33]	18.0 [0.71]
<u>HFC-25M</u>	40.0 [1.57]	30.0 [1.18]	10.3 [0.41]	20.0 [0.79]
<u>HFC-32M</u>	45.5 [1.79]	30.0 [1.18]	18.3 [0.72]	20.0 [0.79]
<u>HFC-40M</u>	53.5 [2.11]	32.0 [1.26]	18.3 [0.72]	22.0 [0.87]
<u>HFC-50M</u>	64.5 [2.54]	42.0 [1.65]	22.3 [0.88]	28.0 [1.10]
<u>HFC-63M</u>	77.5 [3.05]	44.0 [1.73]	22.3 [0.88]	30.0 [1.18]
<u>HFC-80M</u>	98.5 [3.88]	56.0 [2.20]	28.3 [1.11]	38.0 [1.50]
<u>HFC-100M</u>	117.5 [4.63]	67.0 [2.64]	32.3 [1.27]	45.0 [1.77]

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



CPS Series Cylinder Position Switches

Position Switch Cross Reference Chart

NITRA Switch Type	Cylinder Brand (may fit some of these cylinders)	Photo Example	Groove Illustration	
CPS CPSF	NITRA A-Series NITRA D-Series NITRA F-Series			
CPS9C	DE-STA-CO Robohand SMC Compact Air Bimba Fabco			
CPS9D	NITRA L-Series Fabco Numatics Rotomation			
CPS9E	NITRA L-Series Fabco Numatics Rotomation			
CPS9F	NITRA G-Series Fabco Festo Numatics Rotomation			
CPS9H	NITRA E-Series NITRA H-Series			
CPS9M	Norgren			
CPS9Q	NITRA L-Series NITRA G-Series Parker Fabco Festo Numatics Rotomation			