



# H-Series 12mm Pneumatic Cylinders

## 12mm Bore, Double Acting with Magnet



Part No. H12M005MD-M

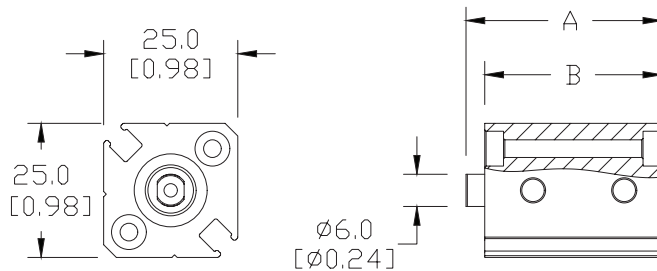
12mm Bore H-Series Cylinders - Double Acting w/ Magnet						
Part Number	Stroke Length (mm)	"A" (mm [in])	"B" (mm [in])	Port Size	Weight (lbs)	Price
H12M005MD-M	5	36.5 [1.44]	33.0 [1.30]	M5x0.8	0.1	
H12M010MD-M	10	41.5 [1.63]	38.0 [1.50]		0.2	
H12M015MD-M	15	46.5 [1.83]	43.0 [1.69]		0.2	
H12M020MD-M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

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]

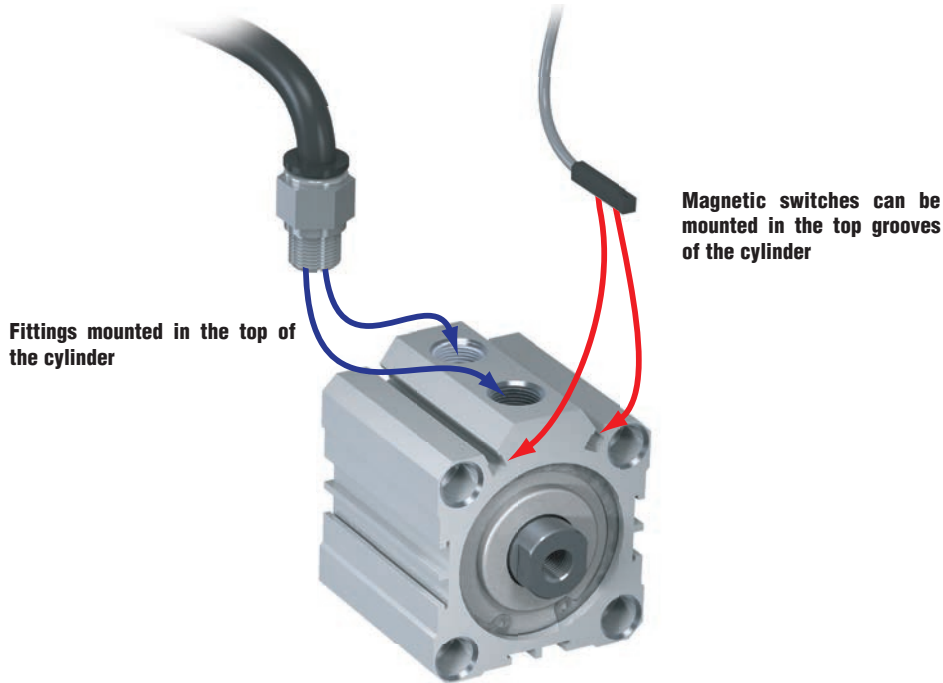


See our website for complete Engineering drawings.



# H-Series Pneumatic Cylinders

## NITRA Pneumatic Compact Extruded Body Air Cylinders



The NITRA Pneumatics H-Series compact extruded body cylinders includes bore sizes from 12mm to 100mm and stroke lengths from 5mm to 100mm to meet a broad range of limited space applications. These high quality cylinders are constructed with hard anodized extruded aluminum bodies and end caps. Cylinder switch mounting slots are built in to the bodies. All sizes include a magnet in the piston and a chrome plated steel piston rod. Interchangeable with other common brands, these cylinders are factory lubricated for optimum performance and long, reliable life.

### Features

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



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



# H-Series Pneumatic Cylinder Accessories

H-Series Pneumatic Cylinder Accessories				
Part Number	Description	Pcs/Pkg	Wt (lb)	Price
<b>HRC-12M</b>	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	
<b>HRC-16M</b>	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	
<b>HRC-20M</b>	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	
<b>HRC-25M</b>	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	
<b>HRC-32M</b>	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	
<b>HRC-40M</b>	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	
<b>HRC-50M</b>	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	
<b>HRC-63M</b>	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	
<b>HRC-80M</b>	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	
<b>HRC-100M</b>	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	
<b>HMA-12M</b>	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	
<b>HMA-16M</b>	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	
<b>HMA-20M</b>	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	
<b>HMA-25M</b>	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	
<b>HMA-32M</b>	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	
<b>HMA-40M</b>	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	
<b>HMA-50M</b>	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	
<b>HMA-63M</b>	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	
<b>HMA-80M</b>	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	
<b>HMA-100M</b>	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	
<b>HFC-12M</b>	NITRA cylinder rear clevis bracket, aluminum. For use with 12 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.1	
<b>HFC-16M</b>	NITRA cylinder rear clevis bracket, aluminum. For use with 16 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.1	
<b>HFC-20M</b>	NITRA cylinder rear clevis bracket, aluminum. For use with 20 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.2	
<b>HFC-25M</b>	NITRA cylinder rear clevis bracket, aluminum. For use with 25 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.2	
<b>HFC-32M</b>	NITRA cylinder rear clevis bracket, cast iron. For use with 32 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.4	
<b>HFC-40M</b>	NITRA cylinder rear clevis bracket, cast iron. For use with 40 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.4	
<b>HFC-50M</b>	NITRA cylinder rear clevis bracket, cast iron. For use with 50 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.8	
<b>HFC-63M</b>	NITRA cylinder rear clevis bracket, cast iron. For use with 63 mm H-series cylinders. Mounting hardware and pivot pin included.	1	1.3	
<b>HFC-80M</b>	NITRA cylinder rear clevis bracket, cast iron. For use with 80 mm H-series cylinders. Mounting hardware and pivot pin included.	1	2.3	
<b>HFC-100M</b>	NITRA cylinder rear clevis bracket, cast iron. For use with 100 mm H-series cylinders. Mounting hardware and pivot pin included.	1	3.8	

# H-Series Pneumatic Cylinder Accessories

## Rod Clevis



Part no. **HRC-20M**



Part no. **HRC-32M**

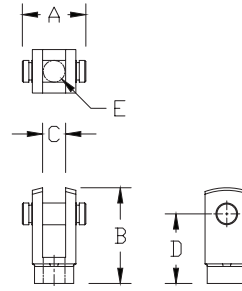


*Note: Comes with Pivot Pin installed.  
Includes Rod Male Adapter (see below)*

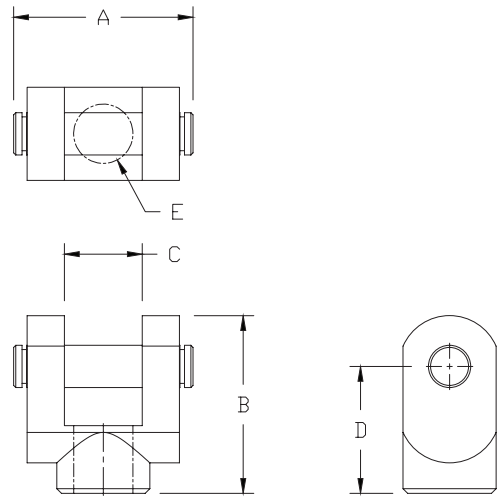
Rod Clevis Dimension Table					
Part #	A	B	C	D	E
<b>HRC-12M</b>	14.6 [0.57]	22.0 [0.87]	5.3 [0.21]	16.0 [0.63]	M5x0.8
<b>HRC-16M</b>	16.8 [0.66]	28.0 [1.10]	6.6 [0.26]	21.0 [0.83]	M6x1.0
<b>HRC-20M</b>	21.0 [0.83]	34.0 [1.34]	8.3 [0.33]	25.0 [0.98]	M8x1.25
<b>HRC-25M</b>	26.4 [1.04]	41.0 [1.61]	10.3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

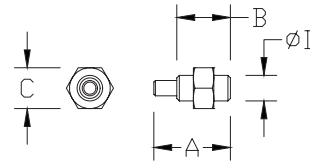


Part no. **HMA-32M**

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

## Dimensions

mm [inches]



**HMA-12M - HMA-100M**

See our website [for complete Engineering drawings.](#)



# H-Series Pneumatic Cylinder Accessories

## Female Rear Clevis



Part no. HFC-20M



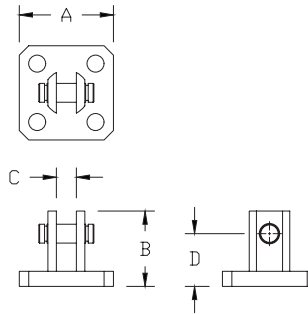
Part no. HFC-32M



*Note: Comes with Pivot Pin installed.  
Mounting Hardware Included.*

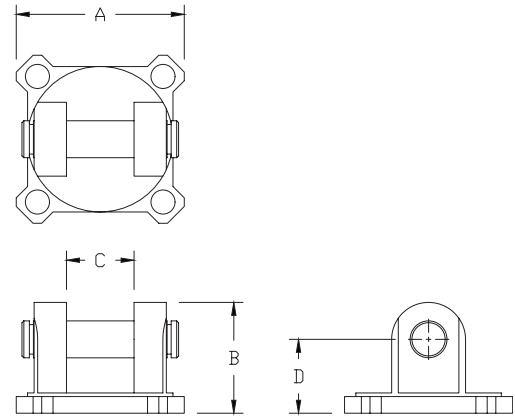
### Dimensions

mm [inches]



HFC-12M - HFC-25M

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



HFC-32M - HFC-100M

See our website [for complete Engineering drawings.](#)

Position Switch Cross Reference Chart			
NITRA Switch Type	Cylinder Brand (may fit some of these cylinders)	Photo Example	Groove Illustration
CPS CPSF	NITRA A-Series, D-Series, F-Series		
CPS9C	DE-STA-CO Robohand SMC Compact Air		
CPS9D	Fabco Numatics Rotomation		
CPS9F	NITRA G-Series Fabco Festo Numatics Rotomation		
CPS9H	NITRA E-Series NITRA H-Series		
CPS9M	Norgren		
CPS9Q	NITRA G-Series Parker		
CPS9T	SMC		