

# H-Series 50mm Pneumatic Cylinders

### 50mm Bore, Double Acting with Magnet



Part No. H50M005MD-M

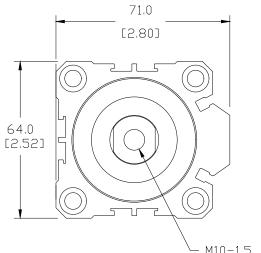
50mm B	ore H-Serie	s Cylinder	's - Doubl	e Acting	w/ Mag	net
Part Number	Stroke Length (mm)	"A" (mm [in])	"B" (mm [in])	Port Size	Weight (lbs)	Price
H50M005MD-M	5	53.5 [2.11]	45.5 [1.79]		1.0	\$112.00
<u>H50M010MD-M</u>	10	58.5 [2.30]	50.5 [1.99]		1.1	\$115.00
H50M015MD-M	15	63.5 [2.50]	55.5 [2.19]		1.1	\$118.00
<u>H50M020MD-M</u>	20	68.5 [2.70]	60.5 [2.38]		1.2	\$119.00
H50M025MD-M	25	73.5 [2.89]	65.5 [2.58]	1/4-NPT	1.3	\$121.00
<u>H50M030MD-M</u>	30	78.5 [3.09]	70.5 [2.78]	1/4-INP 1	1.4	\$122.00
H50M040MD-M	40	88.5 [3.48]	80.5 [3.17]		1.6	\$128.00
<u>H50M050MD-M</u>	50	98.5 [3.88]	90.5 [3.56]		1.7	\$131.00
<u>H50M075MD-M</u>	75	123.5 [4.86]	115.5 [4.55]		2.2	\$141.00
<u>H50M100MD-M</u>	100	148.5 [5.85]	140.5 [5.53]		2.6	\$151.00

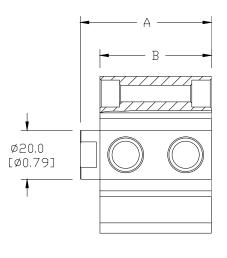
Mounting Accessories					
Rod Clevis	<u>HRC-50M</u>				
Rod Male Adapter	<u>HMA-50M</u>				
Female Rear Clevis	<u>HFC-50M</u>				

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

### Dimensions

mm [inches]



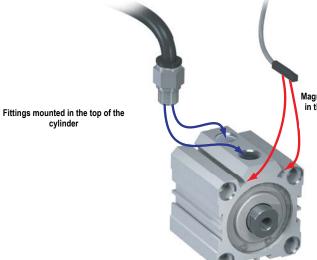


M10-1.5 THREAD

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

**H-Series Pneumatic Cylinders** 

### NITRA Pneumatic Compact Extruded Body Air Cylinders



Magnetic switches can be mounted in the top grooves of the cylinder



Click on the thumbnail or go to <u>https://www.automationdirect.com/VID-PN-0052</u> 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

**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



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.



Click the icon or scan the QR code to be taken to https://www.automationdirect.com/pneumatics/cylinders/cylinder sizing for additional information regarding cylincer 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		M5	x0.8		1/8-NPT 1/4-NPT			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>	NITRAcylinder rod clevis, plated steel, M5x0.8 thread. For use with 12 mm H-series cylinders. Male adapter and hex nut included.	1	0.1	\$14.50
<u>HRC-16M</u>	NITRAcylinderrod clevis, plated steel, M6x1.0 thread. For use with 16 mm H-series cylinders. Male adapter and hex nut included.	1	0.1	\$15.50
<u>HRC-20M</u>	NITRAcylinderrodclevis, plated steel, M8x1.25thread. Foruse with 20mmH-series cylinders. Male adapter and hex nut included.	1	0.1	\$16.00
<u>HRC-25M</u>	NITRAcylinderrodclevis,platedsteel,M10X1.25thread.Forusewith25mmH-seriescylinders. 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>	NITRAcylinder 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.		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.		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.		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.		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.		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.		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.		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.		0.4	\$23.50
<u>HFC-50M</u>	NITPA aylindar roar alovis brackat, aast iron. For uso with 50 mm H sorios aylindars		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

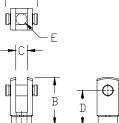
#### **Rod Clevis**

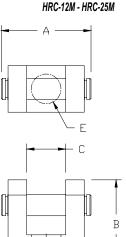


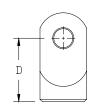


Dimensions

mm [inches]







HRC-32M - HRC-100M

#### Part no. <u>HRC-20M</u>

Part no. <u>HRC-32M</u>



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

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

### **Rod Male Adapter**

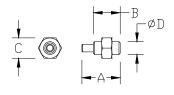


Part no. HMA-32M

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



mm [inches]



HMA-12M - HMA-100M

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



### H-Series Pneumatic Cylinder Accessories

#### **Female Rear Clevis**





Dimensions

mm [inches]

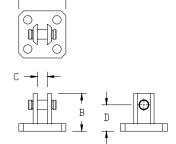
Part no. <u>HFC-20M</u>

Part no. <u>HFC-32M</u>

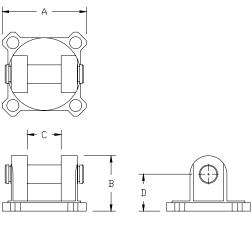


omes with Pivot Pin installed. Mountlware Included.

Female F	Rear Cle	vis Dime	ension Ta	able
Part #	A	В	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]



HFC-12M - HFC-25M



HFC-32M - HFC-100M

See our website <u>www.AutomationDirect.com</u> for complete Engineering drawings.

1-800-633-0405



**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		Round Cylinder (CPSA Series)			
CPS9C	DE-STA-CO Robohand SMC Compact Air Bimba Fabco		2.53 Min. +/- 0.1 + R.2.13 +/- 0.05			
CPS9D	NITRA L-Series Fabco Numatics Rotomation					
CPS9E	NITRA L-Series Fabco Numatics Rotomation					
CPS9F	NITRA G-Series Fabco Festo Numatics Rotomation					
СРЅ9Н	NITRA E-Series NITRA H-Series					
СРЅ9М	Norgren		5.1 +/-0.1 5.1 +/-0.1 5.1 +/-0.1			
CPS9Q	NITRA L-Series NITRA G-Series Parker Fabco Festo Numatics Rotomation					