

## How to Order and Specify

### Example: LM Series Aluminum Cylinder

Cap fixed clevis, 3 1/4" bore x 12" stroke, 1" rod with 3/4"-16 x 1.12 short NFPA male threads. Front and rear end caps have ports at *position 1*, cushions at *position 2* and nothing at *positions 3 and 4*. Cylinder equipped with piston magnet.

End Cap Side Locations: **1 2 3 4**      **1 2 3 4**

**LM 3 325 x 12 AM - ACNN - ACNN - O / M**

Position No: **A B C D E F G H J**

### A Cylinder Model: Specify LM in this position.

- 1 1/2" bore through 12" bore
- Longer lasting improved Nitrile seals. (Std.)
- Machined anodized or black painted aluminum cylinder heads. (Std.)
- Removable, internally lubricated, bearing cartridge. (Std.)
- "SlipTuff" coated bearing cartridge for severe side loaded applications (optional)
- Solid aluminum tube, hard coat anodized ID and OD. (Std.)
- Internally lubricated for life; no in-line lubrication required. (Std.)
- 100,000 PSI yield, **IHCP** chrome plated piston rod. (Std.)
- Adjustable cushions with captive screw. (Cushions are optional).
- In-port mounted proximity switches for near end of stroke position sensing (*optional*). These replace mechanical limit switches.
- Magnetic piston sensing for tie rod mounted reed switches. (Optional).

### B Specify Cylinder Mounting Style: See inside for illustrations and material composition.

<p><b>LM 0</b> No Mount . . . (<i>Adaptable for front or rear flush mounts</i>)</p> <p><b>LM 1</b> Foot Side Lugs . . . . . (MS2)</p> <p><b>LM 2</b> Head Trunnion . . . . . (MT1)</p> <p><b>LM 3</b> Cap Fixed Clevis . . . . . (MP1)</p> <p><b>LM 4</b> Head Rectangular Flange . . . . . (MF1)</p> <p><b>LM 5</b> Cap Rectangular Flange . . . . . (MF2)</p> <p><b>LM 6</b> Intermediate Trunnion . . . . . (MT4) <i>(See XI note on back page)</i></p> <p><b>LM 7</b> Cap Trunnion . . . . . (MT2)</p> <p><b>LM 8</b> Head Tie Rod Extended . . . . . (MX3)</p> <p><b>LM 11</b> Cap Tie Rod Extended . . . . . (MX2)</p> <p><b>LM 12</b> Head &amp; Cap Tie Rod Extended . . . . . (MX1)</p> <p><b>LM 13</b> End Angles . . . . . (MS1)</p>	<p><b>LM 14</b> End Lugs . . . . . (MS7)</p> <p><b>LM 15</b> Centerline Lugs . . . . . (MS3)</p> <p><b>LM 16</b> Side Tapped . . . . . (MS4)</p> <p><b>LM 17</b> Head Square Flange . . . . . (MF5)</p> <p><b>LM 18</b> Cap Square Flange . . . . . (MF6)</p> <p><b>LM 19</b> Head Square Block (<i>For 8" and larger bores</i>) . . . . . (ME3)</p> <p><b>LM 20</b> Cap Square Block (<i>For 8" and larger bores</i>) . . . . . (ME4)</p> <p><b>LM 21</b> Cap Detachable Eye . . . . . (MP4)</p> <p><b>LM 22</b> Cap Fixed Spherical Eye . . . . . (MP5)</p> <p><b>LM 24</b> Cap Detachable Clevis . . . . . (MP2)</p> <p><b>LM 25</b> Cap Fixed Eye . . . . . (MP3)</p> <p><b>LM 27</b> Cap Detachable Clevis . . . . . (<i>Equals MP1 envelope dimensions</i>)</p>
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### C Specify Cylinder Bore

<p><b>150</b> = 1 1/2" bore</p> <p><b>200</b> = 2" bore</p> <p><b>250</b> = 2 1/2" bore</p> <p><b>325</b> = 3 1/4" bore</p> <p><b>400</b> = 4" bore</p>	<p><b>500</b> = 5" bore</p> <p><b>600</b> = 6" bore</p> <p><b>800</b> = 8" bore</p> <p><b>1000</b> = 10" bore</p> <p><b>1200</b> = 12" bore</p>
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### D Specify Stroke Length

Peninsular LM Cylinders can be ordered in 1/4" increments with stroke lengths from 1/2" to over 15 feet.

For Stop Spool (Stop Tube) and Spring Return or Extend applications, contact Peninsular to determine call out for correct stroke length to specify.

### E Specify Piston Rod Diameter and Rod Threads: See Rod Chart on next page.

### F-G Specify Plumbing Configuration for Front End Cap (F) and Rear End Cap (G)

- N** = No air supply port. No cushion adjustment screw.
- A** = Air supply port – NPTF threads.
- S** = Proximity switch will be affixed by Peninsular to the cylinder head. (Complete position **H**)
- M** = Cylinder head is prepared to receive an "in port" mounted proximity switch. Peninsular will not mount the switch to the cylinder head. (Specify "O" in position **H**)
- C** = Cushion adjustment screw.
- B** = Cushion adjustment screw and air port at same end cap side location.





**H Proximity Switches:** If required, identify the required proximity switch to be affixed to cylinder head(s).  
If a switch is not supplied with the cylinder, specify 0 (zero) in this position.

**Specify Type** (For cylinder head mounted switch.)

LPR ..... Namco low-profile Rotatable Mini Connector      X-B11 ..... Balluff Switch Mini-Connector  
T-11 ..... Turck Mini-Connector      O ..... None

**Spacers are not used under the proximity switch.**

(If proximity switch cords are required, contact Peninsular.)

**RF Inductive (In-Port Mounted) Proximity Switch Probe Length Dimensions** (Both cylinder heads.)

<b>Bore Size:</b>	1 1/2"	2"	2 1/2"	3 1/4"	4"	5"	6"	8"	10"	12"
<b>Probe Length:</b>	1.025	1.025	1.025	1.025	1.250	2.062	2.062	2.875	3.775	4.562

If tie rod mounted reed switches for magnetic piston sensing are to be supplied with cylinder, contact Peninsular.

**J Specify Optional Features with Slash Mark and Alpha Character(s)**

/B ..... Adjustable Stroke      /M ..... Piston Magnet  
/E ..... Extended Piston Rod\*      /N ..... Stop Tube\*      /XI ..... Specify XI Dimension (LM6)  
/F ..... Bronze Rod Cartridge      /R ..... Threaded Stud Rod End      /Y ..... Double Rod End  
/H ..... Rod Boot Cover      /S ..... Scraper Ring      /Z ..... "Slip Tuff" Coated Rod Cartridge  
/J ..... Spring Extend      /U ..... Non-Rotatable Piston Rod      /O ..... Other options (describe)  
/K ..... Spring Return      /V ..... Viton Seals

\* Specify Length

**E Specify Piston Rod Diameter and Rod Threads**

First letter denotes  
**Rod Diameter, specify:**

- A = (Standard Rod Diameter)
- B = (Medium Rod Diameter)
- C = (Large Rod Diameter)
- D = (Oversized Rod Diameter)
- E = (Oversized Rod Diameter)

Second letter denotes  
**Rod Threads, specify:**

- M = (External NFPA Short Male)
- F = (NFPA Short Female)
- D = (NFPA Full Male)
- I = (NFPA Intermediate Male)
- A = (NFPA Long Male)
- S = (Spooled Rod End, contact Peninsular for dimensional information)
- X = (Other Rod Ends — please specify)

Other rod sizes & thread sizes are available, please call Peninsular.

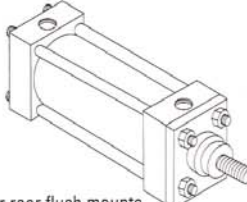
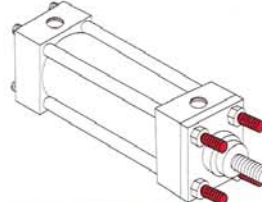
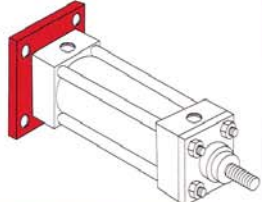
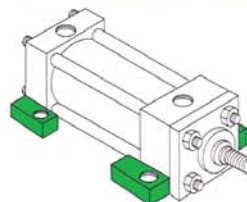
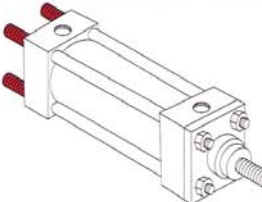
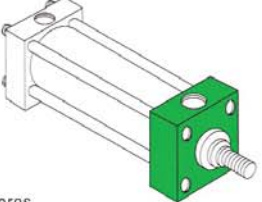
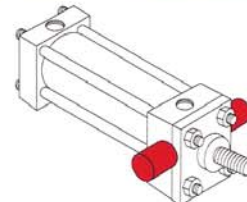
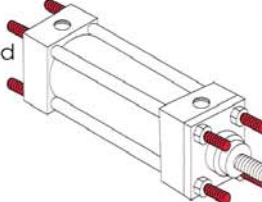
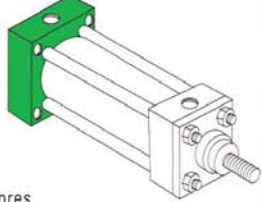
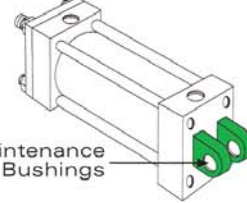
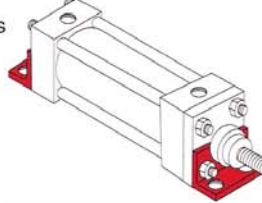
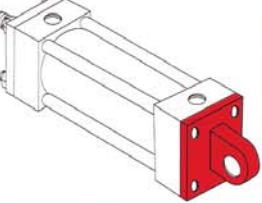
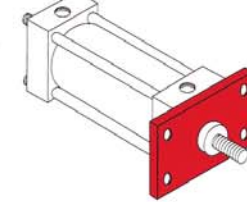
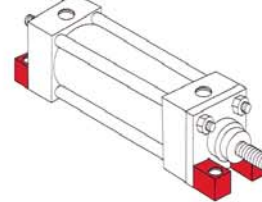
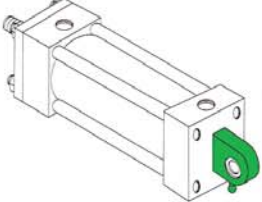
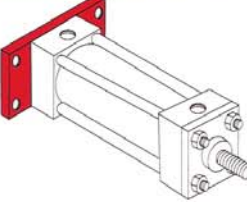
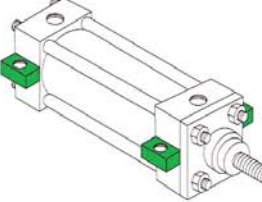
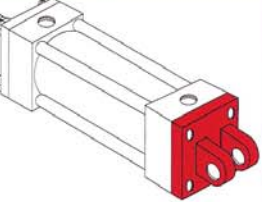
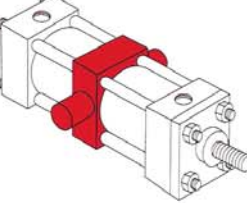
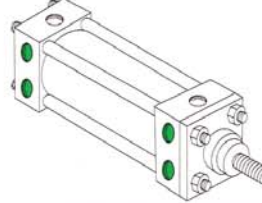
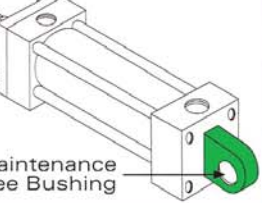
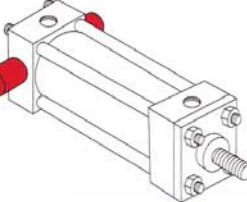
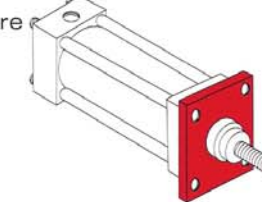
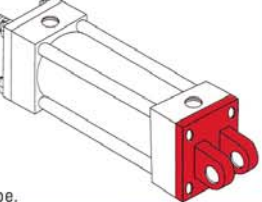
Bore Size	Rod Diameter	Short Male Specify "M"	Short Female Specify "F"	Full Male Specify "D"	Intermediate Male Specify "I"	Long Male Specify "A"
1.50	A = 0.62	7/16"-20 x 0.75	7/16"-20 x 0.75	5/8"-18 x 0.75	1/2"-20 x 0.75	1/2"-20 x 1.12
	B = 1.00	3/4"-16 x 1.12	3/4"-16 x 1.12	1"-14 x 1.12	7/8"-14 x 1.12	7/8"-14 x 1.87
2.00	A = 0.62	7/16"-20 x 0.75	7/16"-20 x 0.75	5/8"-18 x 0.75	1/2"-20 x 0.75	1/2"-20 x 1.12
	B = 1.00	3/4"-16 x 1.12	3/4"-16 x 1.12	1"-14 x 1.12	7/8"-14 x 1.12	7/8"-14 x 1.87
2.50	A = 0.62	7/16"-20 x 0.75	7/16"-20 x 0.75	5/8"-18 x 0.75	1/2"-20 x 0.75	1/2"-20 x 1.12
	B = 1.00	3/4"-16 x 1.12	3/4"-16 x 1.12	1"-14 x 1.12	7/8"-14 x 1.12	7/8"-14 x 1.87
	C = 1.38	1"-14 x 1.62	1"-14 x 1.62	1-3/8"-12 x 1.62	1-1/4"-12 x 1.62	1-1/4"-12 x 2.50
3.25	A = 1.00	3/4"-16 x 1.12	3/4"-16 x 1.12	1"-14 x 1.12	7/8"-14 x 1.12	7/8"-14 x 1.87
	B = 1.38	1"-14 x 1.62	1"-14 x 1.62	1-3/8"-12 x 1.62	1-1/4"-12 x 1.62	1-1/4"-12 x 2.50
	C = 1.75	1-1/4"-12 x 2.00	1-1/4"-12 x 2.00	1-3/4"-12 x 2.00	1-1/2"-12 x 2.00	1-1/2"-12 x 3.00
4.00	A = 1.00	3/4"-16 x 1.12	3/4"-16 x 1.12	1"-14 x 1.12	7/8"-14 x 1.12	7/8"-14 x 1.87
	B = 1.38	1"-14 x 1.62	1"-14 x 1.62	1-3/8"-12 x 1.62	1-1/4"-12 x 1.62	1-1/4"-12 x 2.50
	C = 1.75	1-1/4"-12 x 2.00	1-1/4"-12 x 2.00	1-3/4"-12 x 2.00	1-1/2"-12 x 2.00	1-1/2"-12 x 3.00
	D = 2.00	1-1/2"-12 x 2.25	1-1/2"-12 x 2.25	2"-12 x 2.25	1-3/4"-12 x 2.25	1-3/4"-12 x 3.50
5.00	A = 1.00	3/4"-16 x 1.12	3/4"-16 x 1.12	1"-14 x 1.12	7/8"-14 x 1.12	7/8"-14 x 1.87
	B = 1.38	1"-14 x 1.62	1"-14 x 1.62	1-3/8"-12 x 1.62	1-1/4"-12 x 1.62	1-1/4"-12 x 2.50
	C = 1.75	1-1/4"-12 x 2.00	1-1/4"-12 x 2.00	1-3/4"-12 x 2.00	1-1/2"-12 x 2.00	1-1/2"-12 x 3.00
	D = 2.00	1-1/2"-12 x 2.25	1-1/2"-12 x 2.25	2"-12 x 2.25	1-3/4"-12 x 2.25	1-3/4"-12 x 3.50
6.00	A = 1.38	1"-14 x 1.62	1"-14 x 1.62	1-3/8"-12 x 1.62	1-1/4"-12 x 1.62	1-1/4"-12 x 2.50
	B = 1.75	1-1/4"-12 x 2.00	1-1/4"-12 x 2.00	1-3/4"-12 x 2.00	1-1/2"-12 x 2.00	1-1/2"-12 x 3.00
	C = 2.00	1-1/2"-12 x 2.25	1-1/2"-12 x 2.25	2"-12 x 2.25	1-3/4"-12 x 2.25	1-3/4"-12 x 3.50
	D = 2.50	1-7/8"-12 x 3.00	1-7/8"-12 x 3.00	2-1/2"-12 x 3.00	2-1/4"-12 x 3.00	2-1/4"-12 x 4.50
8.00	A = 1.38	1"-14 x 1.62	1"-14 x 1.62	1-3/8"-12 x 1.62	1-1/4"-12 x 1.62	1-1/4"-12 x 2.50
	B = 1.75	1-1/4"-12 x 2.00	1-1/4"-12 x 2.00	1-3/4"-12 x 2.00	1-1/2"-12 x 2.00	1-1/2"-12 x 3.00
	C = 2.00	1-1/2"-12 x 2.25	1-1/2"-12 x 2.25	2"-12 x 2.25	1-3/4"-12 x 2.25	1-3/4"-12 x 3.50
	D = 2.50	1-7/8"-12 x 3.00	1-7/8"-12 x 3.00	2-1/2"-12 x 3.00	2-1/4"-12 x 3.00	2-1/4"-12 x 4.50
	E = 3.00	2-1/4"-12 x 3.50	2-1/4"-12 x 3.50	3"-12 x 3.50	2-3/4"-12 x 3.50	2-3/4"-12 x 5.50
10.00	A = 1.75	1-1/4"-12 x 2.00	1-1/4"-12 x 2.00	1-3/4"-12 x 2.00	1-1/2"-12 x 2.00	1-1/2"-12 x 3.00
	B = 2.00	1-1/2"-12 x 2.25	1-1/2"-12 x 2.25	2"-12 x 2.25	1-3/4"-12 x 2.25	1-3/4"-12 x 3.50
	C = 2.50	1-7/8"-12 x 3.00	1-7/8"-12 x 3.00	2-1/2"-12 x 3.00	2-1/4"-12 x 3.00	2-1/4"-12 x 4.50
	D = 3.00	2-1/4"-12 x 3.50	2-1/4"-12 x 3.50	3"-12 x 3.50	2-3/4"-12 x 3.50	2-3/4"-12 x 5.50
	E = 3.50	2-1/2"-12 x 3.50	2-1/2"-12 x 3.50	3-1/2"-12 x 3.50	3-1/4"-12 x 3.50	3-1/4"-12 x 6.50
12.00	A = 2.00	1-1/2"-12 x 2.25	1-1/2"-12 x 2.25	2"-12 x 2.25	1-3/4"-12 x 2.25	1-3/4"-12 x 3.50
	B = 2.50	1-7/8"-12 x 3.00	1-7/8"-12 x 3.00	2-1/2"-12 x 3.00	2-1/4"-12 x 3.00	2-1/4"-12 x 4.50
	C = 3.00	2-1/4"-12 x 3.50	2-1/4"-12 x 3.50	3"-12 x 3.50	2-3/4"-12 x 3.50	2-3/4"-12 x 5.50
	D = 3.50	2-1/2"-12 x 3.50	2-1/2"-12 x 3.50	3-1/2"-12 x 3.50	3-1/4"-12 x 3.50	3-1/4"-12 x 6.50
	E = 4.00	3"-12 x 4.00	3"-12 x 4.00	4"-12 x 4.00	3-3/4"-12 x 4.00	3-3/4"-12 x 7.50



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# NFPA Mounting Styles

<p><b>LM 0</b> No Mount (MX0)</p>  <p>Adaptable for front or rear flush mounts.</p>	<p><b>LM 8</b> Head Tie Rod Extended (MX3)</p> 	<p><b>LM 18</b> Cap Square Flange (MF6)</p> 
<p><b>LM 1</b> Foot Side Lugs (MS2)</p> 	<p><b>LM 11</b> Cap Tie Rod Extended (MX2)</p> 	<p><b>LM 19</b> Head Square Block (ME3)</p>  <p>For 8" and bigger bores.</p>
<p><b>LM 2</b> Head Trunnion (MT1)</p> 	<p><b>LM 12</b> Head and Cap Tie Rod Extended (MX1)</p> 	<p><b>LM 20</b> Cap Square Block (ME4)</p>  <p>For 8" and bigger bores.</p>
<p><b>LM 3</b> Cap Fixed Clevis (MP1)</p>  <p>Maintenance Free Bushings</p>	<p><b>LM 13</b> End Angles (MS1)</p> 	<p><b>LM 21</b> Cap Detachable Eye (MP4)</p> 
<p><b>LM 4</b> Head Rectangular Flange (MF1)</p> 	<p><b>LM 14</b> End Lugs (MS7)</p> 	<p><b>LM 22</b> Cap-Fixed Spherical Eye (MP5)</p> 
<p><b>LM 5</b> Cap Rectangular Flange (MF2)</p> 	<p><b>LM 15</b> Centerline Lugs (MS3)</p> 	<p><b>LM 24</b> Cap Detachable Clevis (MP2)</p> 
<p><b>LM 6</b> Intermediate Trunnion (MT4)</p>  <p>*See note</p>	<p><b>LM 16</b> Side Tapped (MS4)</p> 	<p><b>LM 25</b> Cap-Fixed Eye (MP3)</p>  <p>Maintenance Free Bushing</p>
<p><b>LM 7</b> Cap Trunnion (MT2)</p> 	<p><b>LM 17</b> Head Square Flange (MF5)</p> 	<p><b>LM 27</b> Cap Detachable Clevis</p>  <p>Equals MP1 envelope.</p>

■ = Steel   ■ = Aluminum

**Note:** Specify XI dimension at position "J" when ordering an intermediate trunnion cylinder (LM 6). In the absence of an XI dimension, Peninsular will center the intermediate trunnion between the two end caps.