

- > **Unique square piston rod with rounded corners to prevent rotation better**
- > **Rounded corners provide longer seal life**
- > **Superior rotation control**
- > **Dimensionally interchangeable with the standard Roundline Plus**



## Technical Data

### Medium

Air only

### Operation

Double & Reverse acting

### Operating Pressure

250 PSI

### Operating Temperature

-20° F to 200° F

### Cylinder Diameters

9/16" - 2-1/2"

### Strokes

1" - 24" (bore size dependent)

### Ports

1/8" NPT , 1/4" NPT

### Lubrication

Permanent grease lubrication

### Materials

Barrel: 304 stainless steel

Piston Rod: Stainless steel

End Caps: Aluminum

Piston seal: Buna N "U" Cup

Rod guide: High strength

aluminum alloy

Rod seal: Urethane-based

### Mounting

Double & Reverse acting nose;

Double acting universal; Reverse

acting pivot; Double & reverse

acting block front mount

## Non-Rotating Air Cylinders

Norgren's new Non-Rotating stainless steel body air cylinder design consists of a unique square piston rod with rounded corners. The square rod prevents rotation better than other rod configurations, and the rounded corners provide longer seal life than conventional hexagon rods. The unusual geometry of the square rod also provides superior rotation control. All bore sizes have a rotational control of less than or equal to  $\pm 3$  degrees. The special high strength aluminum alloy rod guide provides high load carrying capability and abrasion resistance. The urethane-based rod seal provides excellent seal life and leak-free service. The Non-Rotating cylinder is dimensionally interchangeable with the standard Roundline Plus cylinder.

## Order

Type	
Non-Rotating	NR

Bore	Substitute
9/16"	056
3/4"	075
1-1/16"	106
1-1/2"	150
2"	200
2-1/2"	250

Stroke	
In inches and decimal fractions	

NR106X2.25-DPBM2

Options	Substitute
Bumpers	B
Ports Rotated 90°	PL
Low Temp Seals/Lube (-20° F to 200° F)	LT
No threads on rod	PR
Side ported rear head	PC
Magnet	M
Magnet with track in position 1, 2, 3 or 4. Include "M" only once and each track location after that. For example, a cylinder with track in position 1 and 3 would have option M13	M1 M2 M3 M4
High Temp Seals/Lube (0° F to 400° F)	V
Pivot Bushing (no pin, 075, 106, 150 bores only)	PO
RX.XXExtra rod extension. Specify total additional rod extension in inches. For example, a cylinder with an extra extension of 1-1/2" would have option R1.5	RX.XX

\*Enter options in alphabetical order

Mounting	Substitute
Double Acting Nose Mount	DN
Double Acting Universal Mount	DP
Reverse Acting Nose Mount	RN
Reverse Acting Pivot or Universal Mount (bore dependent)	RP
Double Acting Block Front Mount (only in 075, 106 and 150 bores)	DB
Reverse Acting Block Front Mount (only in 075, 106 and 150 bores)	RB
Double Acting Block Front Trunnion Mount (only in 075, 106 and 150 bores)	DT


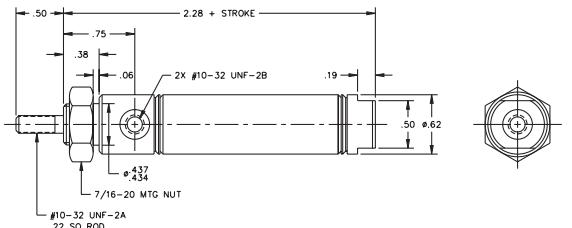

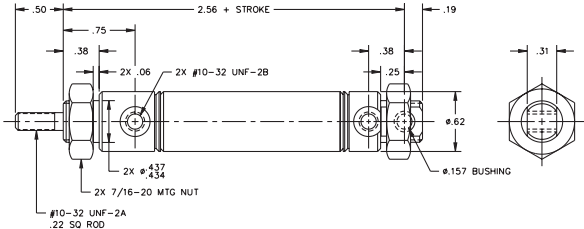

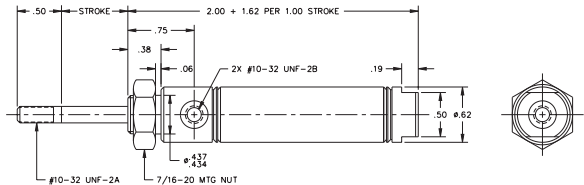

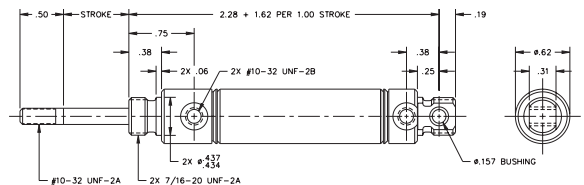
## 9/16" Bore Non-Rotating Air Cylinders

- Enclosed Spring Force: 2lbs Relaxed - 4lbs Compressed

### Options:

- Side Ported Rear Head (PC)
- Ports Rotated (PL)
- Reverse Acting Bumpers (B)
  - » Add .062 to overall length
- Double Acting Bumpers (B)
  - » Add .125 to overall length
- Extra Extension (R)
- Magnet (M)
  - » Reverse acting add .125" to overall length
- » Must specify track(s) for use with miniature position sensing (M1, M2, M3, M4). See page 12 for track location details.
- Low Temperature (LT)
  - » Temperature Range : -40° to 200°F
- High Temperature Seals (V)
  - » Temperature Range : 0° to 400°F (-18° to 205°C)
- Omit Rod Threads (PR)

☐ Enter Stroke Length

Model	Description/Weight (Lbs)	Dimensions
NR056 <input type="checkbox"/> -DN	 <p>Double Acting – Air Return – Front Nose Mounting            Standard Stroke Lengths:            ½", 1", 1½", 2", 2½", 3", 4"            Maximum Stroke – 10"            Base Weight: .09            Adder Per Inch of Stroke: .02</p>	
NR056 <input type="checkbox"/> -DP	 <p>Double Acting – Double End or Rear Pivot Mounting – Air Return            Standard Stroke Lengths:            ½", 1", 1½", 2", 2½", 3", 4"            Maximum Stroke – 10"            Base Weight: .09            Adder Per Inch of Stroke: .02</p>	
NR056 <input type="checkbox"/> -RN	 <p>Reverse Single Acting – Pull Type – Rod Normally Extended – Spring Return – Front Nose Mounting            Standard Stroke Lengths:            ½", 1", 1½", 2", 2½", 3"            Maximum Stroke – 4"            Base Weight: .08            Adder Per Inch of Stroke: .04</p>	 <p>See page X.X for length calculation of fractional stroke for single acting cylinders.</p>
NR056 <input type="checkbox"/> -RP	 <p>Reverse Single Acting – Pivot and Pull Type – Rod Normally Extended – Spring Return – Rear Pivot Mounting            Standard Stroke Lengths:            ½", 1", 1½", 2", 2½", 3"            Maximum Stroke – 4"            Base Weight: .08            Adder Per Inch of Stroke: .04</p>	 <p>See page X.X for length calculation of fractional stroke for single acting cylinders.</p>


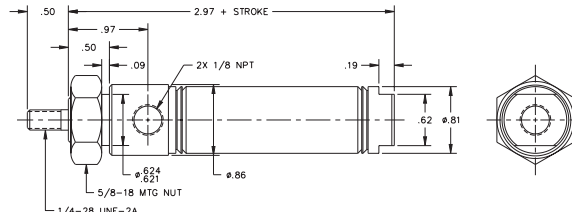

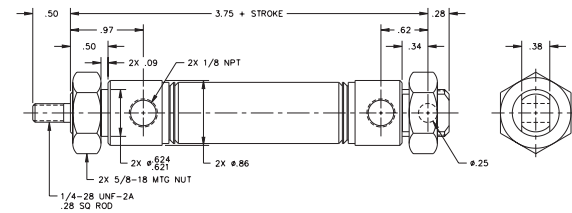

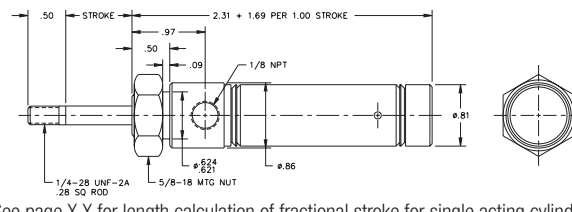

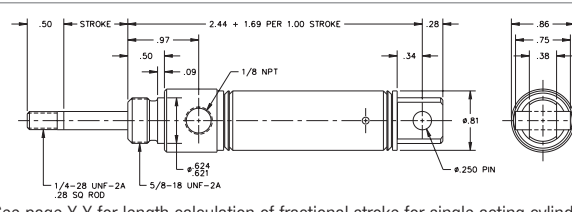
### 3/4" Bore Non-Rotating Air Cylinders

- Enclosed Spring Force: 3lbs Relaxed - 6lbs Compressed

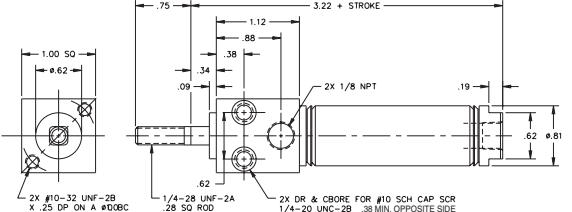
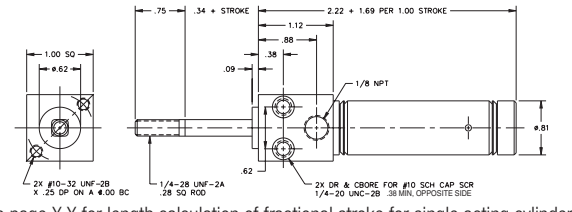
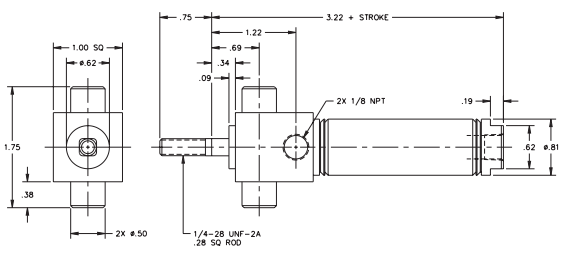
#### Options:

- Ports Rotated (PL)
- Side Ported Rear Head (PC)
- Pivot Bushing (PO)
- Reverse Acting Bumpers (B)
  - » Add .062 to overall length
- Double Acting Bumpers (B)
  - » Add .125 to overall length
- Extra Extension (R)
- Magnet (prefix M)
  - » Reverse acting add .125" to overall length
- » Must specify track(s) for use with miniature position sensing (M1, M2, M3, M4). See page 12 for track location details.
- Low Temperature (LT)
  - » Temperature Range : -40° to 200°F
- High Temperature Seals (V)
  - » Temperature Range : 0° to 400°F (-18° to 205°C)
- Omit Rod Threads (PR)

☐ Enter Stroke Length

Model	Description/Weight (Lbs)	Dimensions
NR075 <input type="checkbox"/> -DN	 <p>Double Acting – Air Return – Front Nose Mounting Standard Stroke Lengths: ½", 1", 1½", 2", 2½", 3", 4", 5", 6" Maximum Stroke – 12" Base Weight: .21 Adder Per Inch of Stroke: .03</p>	
NR075 <input type="checkbox"/> -DP	 <p>Double Acting – Double End or Rear Pivot Mounting – Air Return Standard Stroke Lengths: ½", 1", 1½", 2", 2½", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12" Maximum Stroke – 24" Base Weight: .29 Adder Per Inch of Stroke: .03</p>	
NR075 <input type="checkbox"/> -RN	 <p>Reverse Single Acting – Pull Type – Rod Normally Extended – Spring Return – Front Nose Mounting Standard Stroke Lengths: ½", 1", 1½", 2", 2½", 3", 4" Maximum Stroke – 6" Base Weight: .18 Adder Per Inch of Stroke: .07</p>	 <p>See page X.X for length calculation of fractional stroke for single acting cylinders.</p>
NR075 <input type="checkbox"/> -RP	 <p>Reverse Single Acting – Pull Type – Rod Normally Extended – Spring Return – Rear Pivot Mounting Standard Stroke Lengths: ½", 1", 1½", 2", 2½", 3", 4" Maximum Stroke – 6" Base Weight: .18 Adder Per Inch of Stroke: .07</p>	 <p>See page X.X for length calculation of fractional stroke for single acting cylinders.</p>

### 3/4" Bore Non-Rotating Air Cylinders

Model	Description/Weight (Lbs)	Dimensions
NR075 □ -DB	<p>Double Acting – Front Block Mounting – Air Return</p> <p>Standard Stroke Lengths: 1/2", 1", 1 1/2", 2", 2 1/2", 3", 4", 5", 6"</p> <p>Maximum Stroke – 12"</p> <p>Base Weight: .22</p> <p>Adder Per Inch of Stroke: .03</p>	 <p>Technical drawing showing front and side views of the NR075 □ -DB cylinder. Dimensions include: 1.00 SQ, .62, .75, .34, .09, .62, 1.12, .88, 3.22 + STROKE, .19, .62, .81, 2X 1/8 NPT, 2X #10-32 UNF-2B X .25 DP ON A #10BC, 1/4-28 UNF-2A .28 SQ ROD, 2X DR &amp; CBORE FOR #10 SCH CAP SCR 1/4-20 UNC-2B .38 MIN. OPPOSITE SIDE.</p>
NR075 □ -RB	<p>Pull Type – Front Block Mounting Rod Normally Extended</p> <p>– Reverse Single Acting – Spring Return</p> <p>Standard Stroke Lengths: 1/2", 1", 1 1/2", 2", 2 1/2", 3", 4"</p> <p>Maximum Stroke – 6"</p> <p>Base Weight: .19</p> <p>Adder Per Inch of Stroke: .07</p>	 <p>Technical drawing showing front and side views of the NR075 □ -RB cylinder. Dimensions include: 1.00 SQ, .62, .75, .34 + STROKE, .09, .62, 1.12, .88, 2.22 + 1.69 PER 1.00 STROKE, .19, .62, .81, 1/8 NPT, 2X #10-32 UNF-2B X .25 DP ON A #10 BC, 1/4-28 UNF-2A .28 SQ ROD, 2X DR &amp; CBORE FOR #10 SCH CAP SCR 1/4-20 UNC-2B .38 MIN. OPPOSITE SIDE.</p> <p>See page X.X for length calculation of fractional stroke for single acting cylinders.</p>
NR075 □ -DT	<p>Double Acting – Front Block Trunnion Mounting – Air Return</p> <p>Standard Stroke Lengths: 1/2", 1", 1 1/2", 2", 2 1/2", 3", 4"</p> <p>Maximum Stroke – 12"</p> <p>Base Weight: .29</p> <p>Adder Per Inch of Stroke: .03</p>	 <p>Technical drawing showing front and side views of the NR075 □ -DT cylinder. Dimensions include: 1.00 SQ, .62, .75, .34, .09, .62, 1.12, .88, 3.22 + STROKE, .19, .62, .81, 2X 1/8 NPT, 2X #10-32 UNF-2B X .25 DP ON A #10 BC, 1/4-28 UNF-2A .28 SQ ROD, 2X DR &amp; CBORE FOR #10 SCH CAP SCR 1/4-20 UNC-2B .38 MIN. OPPOSITE SIDE.</p>


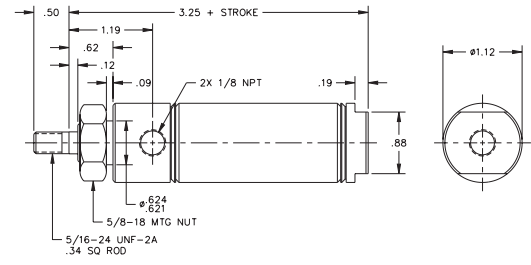

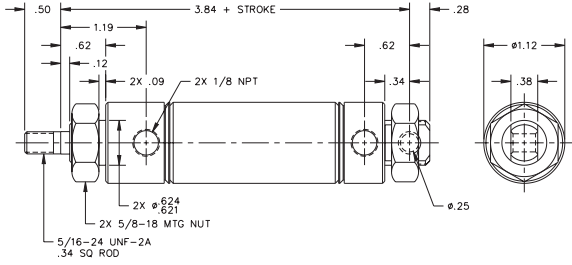

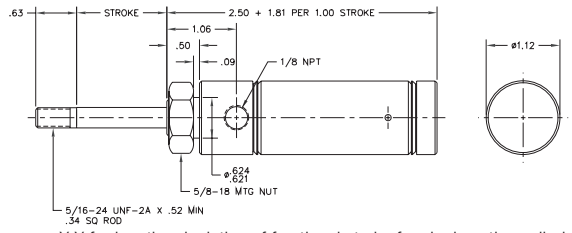

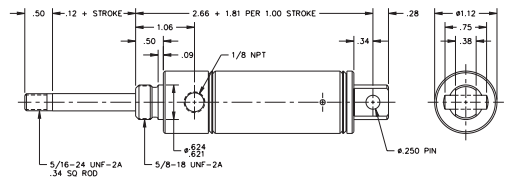
## 1-1/16" Bore Non-Rotating Air Cylinders

- Enclosed Spring Force: 6lbs Relaxed - 12lbs Compressed.

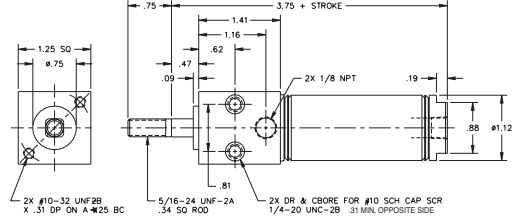
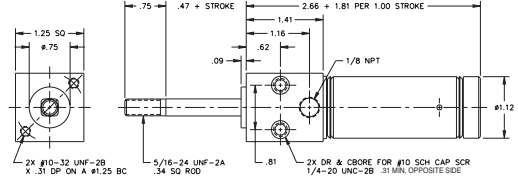
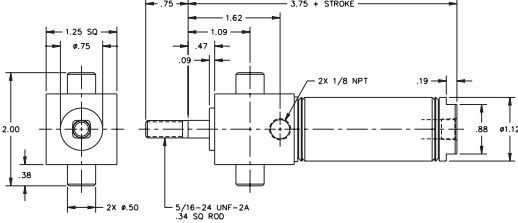
### Options:

- Ports Rotated (PL)
- Side Ported Rear Head (PC)
- Pivot Bushing (PO)
- Reverse Acting Bumpers (B)
  - » Add .062 to overall length
- Double Acting Bumpers (B)
  - » Add .125 to overall length
- Extra Extension (R)
- Magnet (M)
  - » Reverse acting add .125" to overall length
- » Must specify track(s) for use with miniature position sensing (M1, M2, M3, M4). See page 12 for track location details.
- Low Temperature (LT)
  - » Temperature Range : -40° to 200°F
- High Temperature Seals (V)
  - » Temperature Range : 0° to 400°F (-18° to 205°C)
- Omit Rod Threads (PR)

☐ Enter Stroke Length

Model	Description/Weight (Lbs)	Dimensions
NR106 <input type="checkbox"/> -DN	 <p>Double Acting – Air Return – Front Nose Mounting Standard Stroke Lengths: ½", 1", 1½", 2", 2½", 3", 4", 5", 6" Maximum Stroke – 12" Base Weight: .33 Adder Per Inch of Stroke: .05</p>	
NR106 <input type="checkbox"/> -DP	 <p>Double Acting – Double End or Rear Pivot Mounting – Air Return Standard Stroke Lengths: ½", 1", 1½", 2", 2½", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12" Maximum Stroke – 24" Base Weight: .33 Adder Per Inch of Stroke: .05</p>	
NR106 <input type="checkbox"/> -RN	 <p>Reverse Single Acting – Pull Type – Rod Normally Extended – Spring Return – Front Nose Mounting Standard Stroke Lengths: ½", 1", 1½", 2", 2½", 3", 4" Maximum Stroke – 6" Base Weight: .24 Adder Per Inch of Stroke: .16</p>	 <p>See page X.X for length calculation of fractional stroke for single acting cylinders.</p>
NR106 <input type="checkbox"/> -RP	 <p>Reverse Single Acting – Pivot or Pull Type – Rod Normally Extended Spring Return – Rear Pivot Mounting Standard Stroke Lengths: ½", 1", 1½", 2", 2½", 3", 4" Maximum Stroke – 6" Base Weight: .22 Adder Per Inch of Stroke: .16</p>	 <p>See page X.X for length calculation of fractional stroke for single acting cylinders.</p>

## 1-1/16" Bore Non-Rotating Air Cylinders

Model	Description/Weight (Lbs)	Dimensions
NR106 □ -DB	<p>Double Acting – Front Block Mounting – Air Return</p> <p>Standard Stroke Lengths: ½", 1", 1½", 2", 2½", 3", 4", 5", 6"</p> <p>Maximum Stroke – 12"</p> <p>Base Weight: .49</p> <p>Adder Per Inch of Stroke: .05</p>	 <p>Technical drawing showing front and side views of the NR106 □ -DB cylinder. Dimensions include: 1.25 SQ, .75, .47, .09, .62, 1.41, 3.75 + STROKE, .19, .88, .12, 2X 1/8 NPT, 2X #10-32 UNF-2B X .31 DP ON A #25 BC, 5/16-24 UNF-2A .34 SQ ROD, 2X DR &amp; CBORE FOR #10 SCH CAP SCR 1/4-20 UNC-2B .31 MIN. OPPOSITE SIDE.</p>
NR106 □ -RB	<p>Reverse Single Acting – Front Block Mounting – Rod Normally Extended – Reverse Single Acting – Spring Return</p> <p>Standard Stroke Lengths: ½", 1", 1½", 2", 2½", 3", 4"</p> <p>Maximum Stroke – 6"</p> <p>Base Weight: .36</p> <p>Adder Per Inch of Stroke: .16</p>	 <p>Technical drawing showing front and side views of the NR106 □ -RB cylinder. Dimensions include: 1.25 SQ, .75, .47 + STROKE, .09, .62, 1.41, 2.66 + 1.81 PER 1.00 STROKE, .19, .88, .12, 1/8 NPT, 2X #10-32 UNF-2B X .31 DP ON A #25 BC, 5/16-24 UNF-2A .34 SQ ROD, 2X DR &amp; CBORE FOR #10 SCH CAP SCR 1/4-20 UNC-2B .31 MIN. OPPOSITE SIDE.</p>
NR106 □ -DT	<p>Double Acting – Front Block Trunnion Mounting – Air Return</p> <p>Standard Stroke Lengths: ½", 1", 1½", 2", 2½", 3", 4"</p> <p>Maximum Stroke – 12"</p> <p>Base Weight: .49</p> <p>Adder Per Inch of Stroke: .05</p>	 <p>Technical drawing showing front and side views of the NR106 □ -DT cylinder. Dimensions include: 1.25 SQ, .75, .47, .09, .62, 1.41, 3.75 + STROKE, .19, .88, .12, 2X 1/8 NPT, 2X #10-32 UNF-2B X .31 DP ON A #25 BC, 5/16-24 UNF-2A .34 SQ ROD, 2X DR &amp; CBORE FOR #10 SCH CAP SCR 1/4-20 UNC-2B .31 MIN. OPPOSITE SIDE.</p>

See page X.X for length calculation of fractional stroke for single acting cylinders.


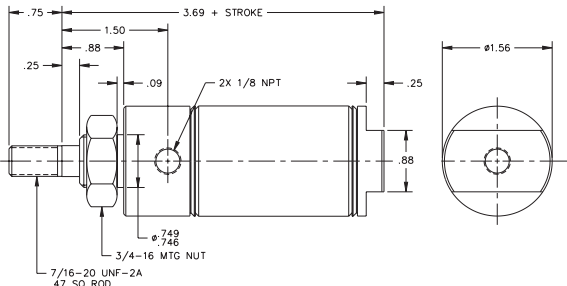

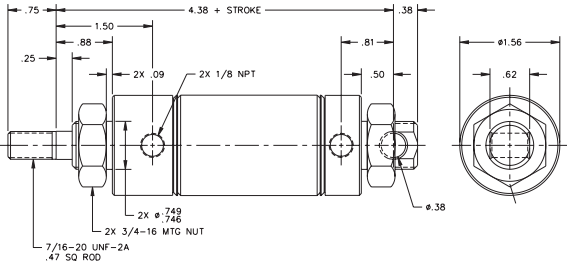

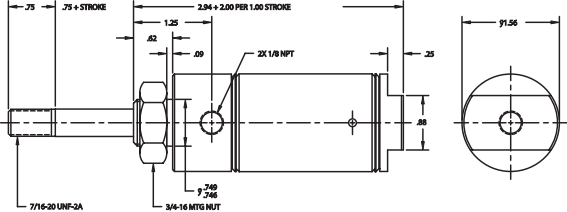
## 1-1/2" Bore Non-Rotating Air Cylinders

- Enclosed Spring Force: 8.5lbs Relaxed - 17lbs Compressed

### Options:

- Ports Rotated (PL)
- Side Ported Rear Head (PC)
- Pivot Bushing (PO)
- Reverse Acting Bumpers (B)
  - Add .062 to overall length
- Double Acting Bumpers (B)
  - Add .125 to overall length
- Extra Extension (R)
- Magnet (M)
  - Reverse acting add .125" to overall length
- Must specify track(s) for use with miniature position sensing. See page 12 for track location details.
- Low Temperature (LT)
  - Temperature Range : -40° to 200°F
- High Temperature Seals (V)
  - Temperature Range : 0° to 400°F (-18° to 205°C)
- Omit Rod Threads (PR)


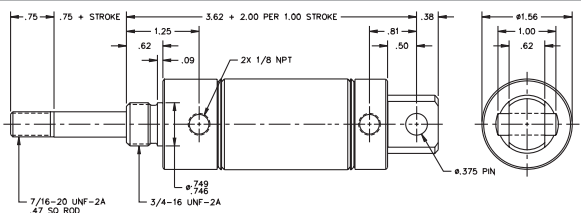

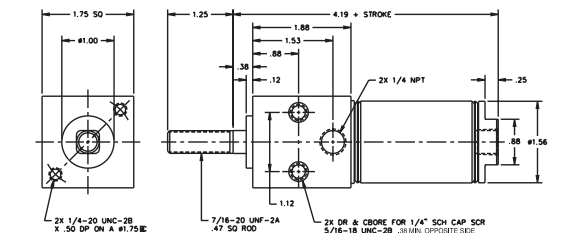

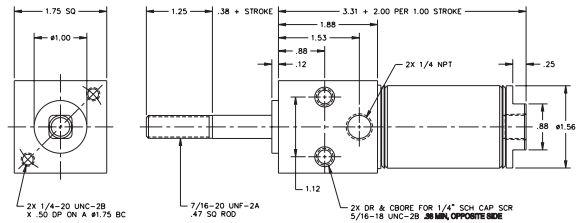

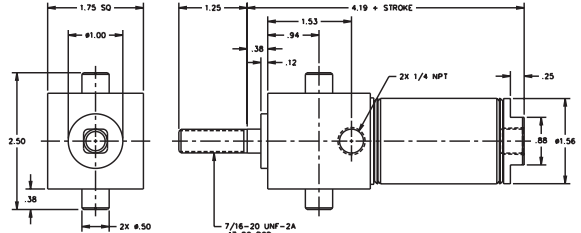
☐ Enter Stroke Length

Model	Description/Weight (Lbs)	Dimensions
NR150 <input type="checkbox"/> -DN	 <p>Double Acting – Air Return – Front Nose Mounting Standard Stroke Lengths: ½", 1", 1½", 2", 2½", 3", 4", 5", 6" Maximum Stroke – 12" Base Weight: .69 Adder Per Inch of Stroke: .08</p>	 <p>Dimensions: .75, 1.50, 3.69 + STROKE, .25, .88, .09, 2X 1/8 NPT, .25, .88, Ø1.56, Ø.749, 3/4-16 MTG NUT, 7/16-20 UNF-2A, .47 SQ ROD</p>
NR150 <input type="checkbox"/> -DP	 <p>Double Acting – Double End or Rear Pivot Mounting – Air Return Standard Stroke Lengths: ½", 1", 1½", 2", 2½", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12" Maximum Stroke – 24" Base Weight: .82 Adder Per Inch of Stroke: .08</p>	 <p>Dimensions: .75, 1.50, 4.38 + STROKE, .25, .88, .09, 2X 1/8 NPT, .81, .50, .38, Ø1.56, .62, Ø.749, 2X 3/4-16 MTG NUT, 7/16-20 UNF-2A, .47 SQ ROD</p>
NR150 <input type="checkbox"/> -RN	 <p>Reverse Single Acting – Pull Type – Rod Normally Extended Spring Return – Spring force 8.5lbs relaxed, 17lbs compressed – Front Nose Mounting Standard Stroke Lengths: ½", 1", 1½", 2", 2½", 3", 4" Maximum Stroke – 6" Base Weight: .44 Adder Per Inch of Stroke: .22</p>	 <p>Dimensions: .75, .75 + STROKE, 2.94 + 2.00 PER 1.00 STROKE, 1.25, .09, 2X 1/8 NPT, .25, .88, Ø1.56, Ø.749, 3/4-16 MTG NUT, 7/16-20 UNF-2A, .47 SQ ROD</p>

See page X.X for length calculation of fractional stroke for single acting cylinders.



## 1-1/2" Bore Non-Rotating Air Cylinders

Model	Description/Weight (Lbs)	Dimensions
NR150  -RP	Reverse Single Acting – Pivot and Pull Type – Rod Normally Extended – Spring Return – Spring Force 8.5lbs relaxed, 17lbs compressed – Rear Pivot Mounting Standard Stroke Lengths: ½", 1", 1½", 2", 2½", 3", 4" Maximum Stroke – 6" Base Weight: .45 Adder Per Inch of Stroke: .22	 <p>See page X.X for length calculation of fractional stroke for single acting cylinders.</p>
NR150  -DB	Double Acting – Front Block Mounting – Air Return Standard Stroke Lengths: ½", 1", 1½", 2", 2½", 3", 4", 5", 6" Maximum Stroke – 12" Base Weight: .99 Adder Per Inch of Stroke: .08	
NR150  -RB	Pull Type – Front Block Mounting – Rod Normally Extended – Reverse Single Acting – Spring Return Standard Stroke Lengths: ½", 1", 1½", 2", 2½", 3", 4" Maximum Stroke – 6" Base Weight: .96 Adder Per Inch of Stroke: .22	 <p>See page X.X for length calculation of fractional stroke for single acting cylinders.</p>
NR150  -DT	Double Acting – Front Block Trunnion Mounting – Spring Return Standard Stroke Lengths: ½", 1", 1½", 2", 2½", 3", 4" Maximum Stroke – 12" Base Weight: 1.06 Adder Per Inch of Stroke: .08	


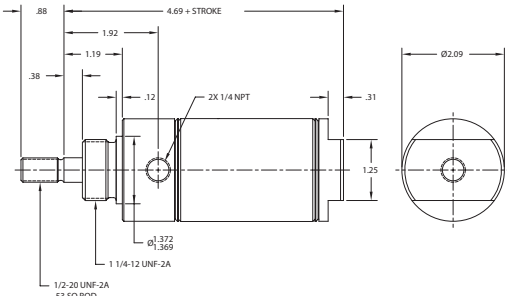

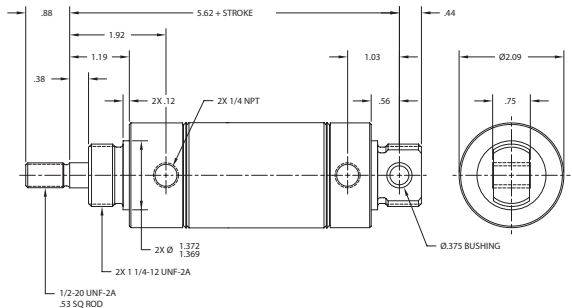
## 2" Bore Non-Rotating Air Cylinders

- Enclosed Spring Force: 15lbs Relaxed - 30lbs Compressed.

### Options:

- Ports Rotated (PL)
- Side Ported Rear Head (PC)
- Reverse Acting Bumpers (B)
  - » Add .062 to overall length
- Double Acting Bumpers (B)
  - » Add .125 to overall length
- Extra Extension
- Magnet (M)
  - » Reverse acting add .125" to overall length
- » Must specify track(s) for use with miniature position sensing. See page 12 for track location details.
- Low Temperature (LT)
  - » Temperature Range : -40° to 200°F
- High Temperature Seals (V)
  - » Temperature Range : 0° to 400°F (-18° to 205°C)
- Omit Rod Threads (PR)

☐ Enter Stroke Length

Model	Description/Weight (Lbs)	Dimensions
NR200 <input type="checkbox"/> -DN	 <p>Double Acting – Air Return – Front Nose Mounting Standard Stroke Lengths: ½", 1", 1½", 2", 2½", 3", 4", 5", 6" Maximum Stroke – 12" Base Weight: 1.40 Adder Per Inch of Stroke: .15</p>	 <p>Dimensions: .88, 1.92, 4.69 + STROKE, 1.19, .38, .12, 2X 1/4 NPT, .31, 1.25, Ø1.372, 1.369, 1 1/4-12 UNF-2A, 1/2-20 UNF-2A, .53 SQ ROD, Ø2.09</p>
NR200 <input type="checkbox"/> -DP	 <p>Double Acting – Universal Mounting Type – Pivot or Double End – Air Return Standard Stroke Lengths: ½", 1", 1½", 2", 2½", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12" Maximum Stroke – 24" Base Weight: 1.62 Adder Per Inch of Stroke: .15</p>	 <p>Dimensions: .88, 1.92, 5.62 + STROKE, 1.19, .38, .12, 2X 1/4 NPT, 1.03, .56, .44, Ø2.09, .75, Ø.375 BUSHING, 2X Ø 1.372 1.369, 2X 1 1/4-12 UNF-2A, 1/2-20 UNF-2A, .53 SQ ROD</p>



## 2" Bore Non-Rotating Air Cylinders

Model	Description/Weight (Lbs)	Dimensions
NR200 □ -RN	<p>Reverse Single Acting — Pull Type — Rod Normally Extended — Spring Return — Front Nose Mounting</p> <p>Standard Stroke Lengths: 1/2", 1", 1 1/2", 2", 2 1/2", 3", 4"</p> <p>Maximum Stroke — 4"</p> <p>Base Weight: 1.24</p> <p>Adder Per Inch of Stroke: .43</p>	<p>See page X.X for length calculation of fractional stroke for single acting cylinders.</p>
NR200 □ -RP	<p>Reverse Single Acting — Pivot or Pull Type — Rod Normally Extended Spring Return — Rear Pivot Mounting</p> <p>Standard Stroke Lengths: 1/2", 1", 1 1/2", 2", 2 1/2", 3", 4"</p> <p>Maximum Stroke — 4"</p> <p>Base Weight: 1.46</p> <p>Adder Per Inch of Stroke: .43</p>	<p>See page X.X for length calculation of fractional stroke for single acting cylinders.</p>

## 2-1/2" Bore Non-Rotating Air Cylinders

### Options:

- Ports Rotated (PL)
- Side Ported Rear Head (PC)
- Double Acting Bumpers (B)
  - » Add .125 to overall length
- Extra Extension (R)
- Magnet (M)
  - » Must specify track(s) for use with miniature position sensing (M1, M2, M3, M4). See page 12 for track location details.
- Low Temperature (LT)
  - » Temperature Range: -40° to 200°F
- High Temperature Seals (V)
  - » Temperature Range: 0° to 400°F (-18° to 205°C)
- Omit Rod Threads (PR)

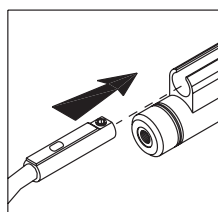
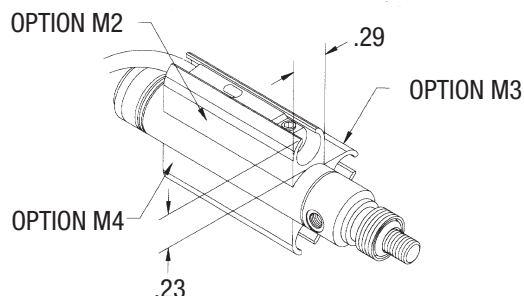
☐ Enter Stroke Length

Model	Description/Weight (Lbs)	Dimensions
NR250 <input type="checkbox"/> -DN	<p>Double Acting – Air Return – Front Nose Mounting</p> <p>Standard Stroke Lengths: 1/2", 1", 1 1/2", 2", 2 1/2", 3", 4", 5", 6"</p> <p>Maximum Stroke – 12"</p> <p>Optional Accessories: D-615-1 Mounting Bracket D-2540 Mounting Nut Base Weight: 1.98 Adder Per Inch of Stroke: .17</p>	
NR250 <input type="checkbox"/> -DP	<p>Double Acting – Universal Mounting Type – Pivot or Double End – Air Return</p> <p>Standard Stroke Lengths: 1/2", 1", 1 1/2", 2", 2 1/2", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12"</p> <p>Maximum Stroke – 24"</p> <p>Optional Accessories: D-615-1 Mounting Bracket D-231-3 Rod Clevis D-620 Pivot Bracket D-2540 Mounting Nut Base Weight: 2.27 Adder Per Inch of Stroke: .17</p>	

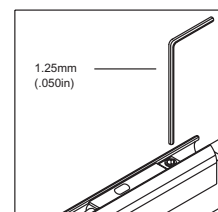
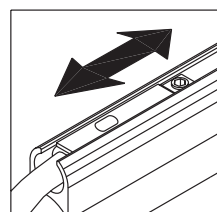
### Accessories

#### Switch Track Options

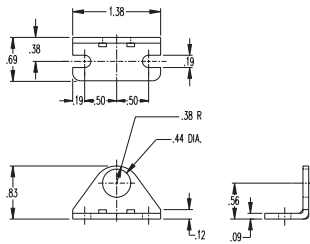
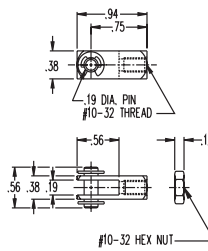
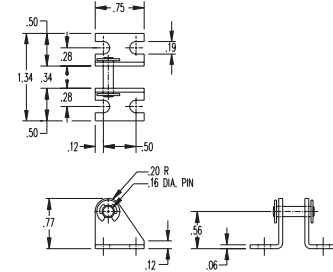
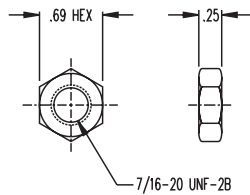
For cylinders with M1, M2, M3 and M4 options



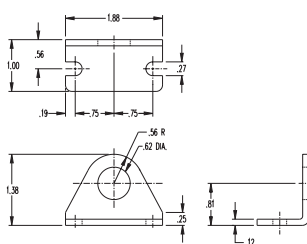
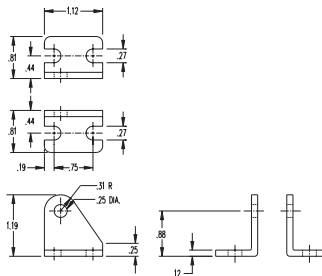
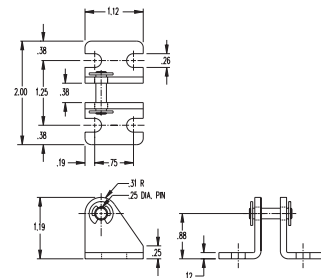
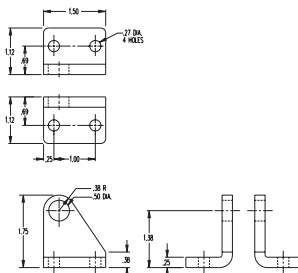
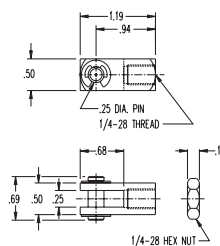
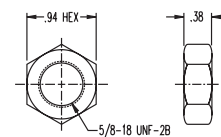
\*M1 = Inline with ports



## 9/16" Bore Accessories

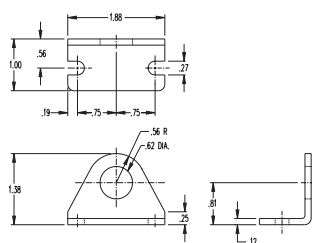
**RE-FB-043D**

**Mounting Bracket**
**RE-RC-043**

**Piston Rod Clevis**
**RE-PB2-056**

**Pivot Bracket with Pin**
**RE-MN-043A**

**Mounting Nut**

## 3/4" Bore Accessories

**RE-FB-075D**

**Mounting Bracket**
**RE-PB1-075**

**Pivot Brackets**
**RE-PB2-075**

**Pivot Bracket**
**RE-TB-075**

**Trunnion Brackets**
**RE-RC-075**

**Piston Rod Clevis**
**RE-MN-075A**

**Mounting Nut**

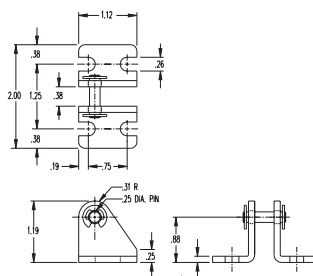
## 1-1/16" Bore Accessories

**RE-FB-075D**



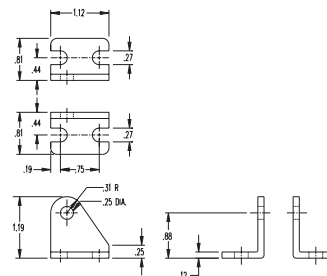
**Mounting Bracket**

**RE-PB2-075**



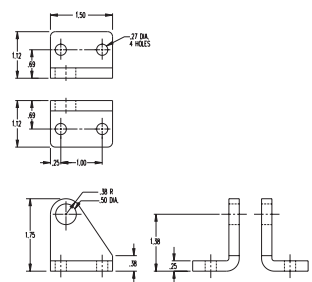
**Pivot Bracket**

**RE-PB1-075**



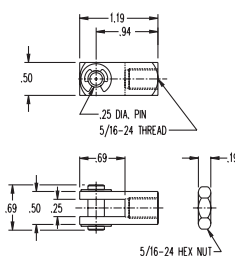
**Pivot Brackets**

**RE-TB-075**



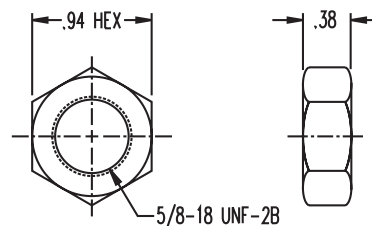
**Trunnion Brackets**

**RE-RC-106**



**Piston Rod Clevis**

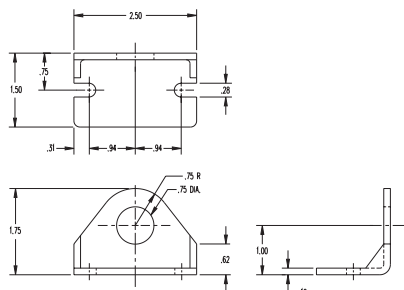
**RE-MN-075A**



**Mounting Nut**

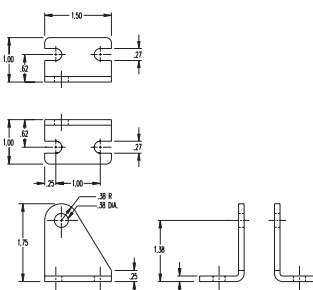
## 1-1/2" Bore Accessories

**RE-FB-125**



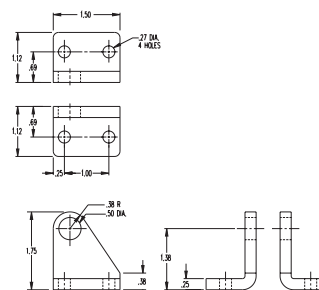
**Mounting Bracket**

**RE-PB2-150**



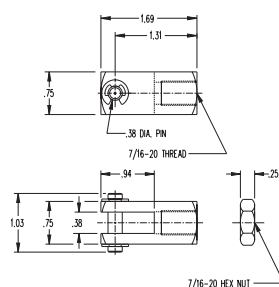
**Pivot Bracket**

**RE-TB-075**



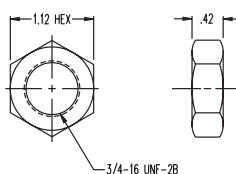
**Trunnion Brackets**

**RE-RC-125**



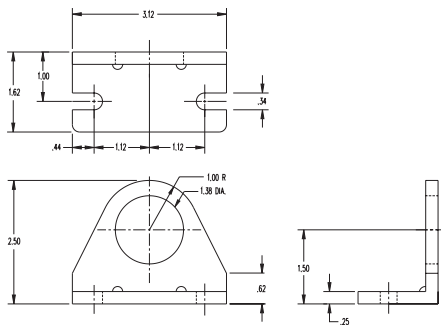
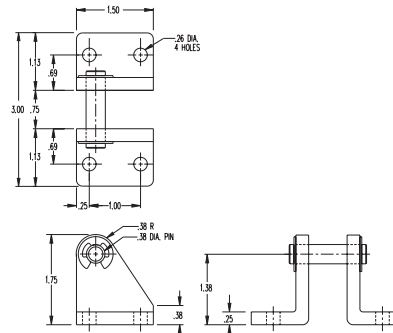
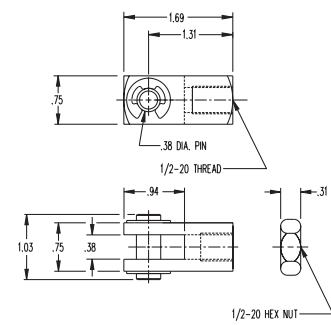
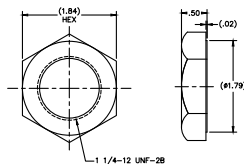
**Piston Rod Clevis**

**RE-MN-125**

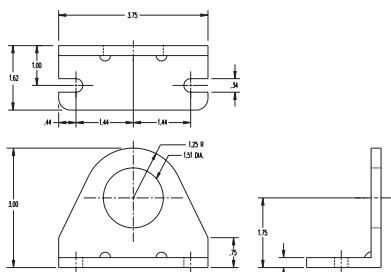
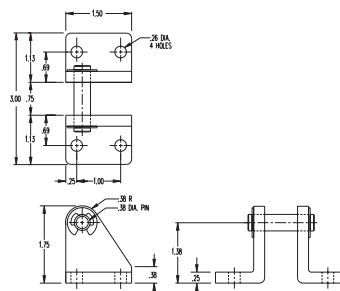
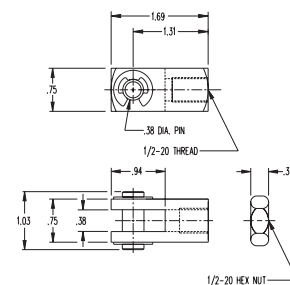
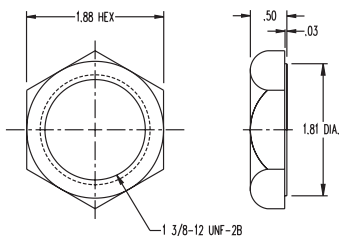


**Mounting Nut**

## 2" Bore Accessories

**RE-FB-200**

**Mounting Bracket**
**RE-PB2-200**

**Pivot Brackets**
**RE-RC-175**

**Piston Rod Clevis**
**RE-MN-200**

**Mounting Nut**

## 2-1/2" Bore Accessories

**RE-FB-250**

**Mounting Bracket**
**RE-PB2-200**

**Pivot Brackets**
**RE-RC-175**

**Piston Rod Clevis**
**RE-MN-250**

**Mounting Nut**

## Switches and Cables

The table below outlines the switches that are compatible with the switch track option.


Part Number	Description
NMR	Reed, 24" Leads
NMRX	Reed, 144" Leads
NMRQ	Reed, M8 Quick Connect
NMRQC	Reed, M8 Quick Connect, with 2m cable
NMRQCX	Reed, M8 Quick Connect, with 5m cable
NMS	Autoconfigure, 24" Leads
NMSX	Autoconfigure, 144" Leads
NMSQ	Autoconfigure, M8 Quick Connect
NMSQC	Autoconfigure, M8 Quick Connect, with 2m cable
NMSQCX	Autoconfigure, M8 Quick Connect, with 5m cable
NMHF-90	Mini Switch, 2-wire, Solid-State Type, LED, 10-28VDC, 50mA, 24" Pigtail Leads, 90° version
NMHFX-90	Mini Switch, 2-wire, Solid-State Type, LED, 10-28VDC, 50mA, 144" Pigtail Leads, 90° version
NMHFQS-90	Mini Switch, 2-wire, Solid-State Type, LED, 10-28VDC, 50mA, with M8 Male Swivel Connector, 90° version
NMHFQCS-90	Mini Switch, 2-wire, Solid-State Type, LED, 10-28VDC, 50mA, with M8 Male Swivel Connector and 2m Mating Cable, 90° version
NMHFQCXS-90	Mini Switch, 2-wire, Solid-State Type, LED, 10-28VDC, 50mA, with M8 Male Swivel Connector and 5m Mating Cable, 90° version
NMHC-90	Mini Switch Sourcing Switch (PNP), 3-wire, Solid-State Type, LED, 5-28VDC, 100mA, 24" Pigtail Leads, 90° version
NMHCX-90	Mini Switch Sourcing Switch (PNP), 3-wire, Solid-State Type, LED, 5-28VDC, 100mA, 144" Pigtail Leads, 90° version
NMHQCS-90	Mini Switch Sourcing Switch (PNP), 3-wire, Solid-State Type, LED, 5-28VDC, 100mA, with M8 Male Swivel Connector, 90° version
NMHQCS-90	Mini Switch Sourcing Switch (PNP), 3-wire, Solid-State Type, LED, 5-28VDC, 100mA, with M8 Male Swivel Connector and 2m Mating Cable, 90° version
NMHQCXS-90	Mini Switch Sourcing Switch (PNP), 3-wire, Solid-State Type, LED, 5-28VDC, 100mA, with M8 Male Swivel Connector and 5m Mating Cable, 90° version
NMHK-90	Mini Switch Sinking Switch (NPN), 3-wire, Solid-State Type, LED, 5-28VDC, 100mA, 24" Pigtail Leads, 90° version
NMHKX-90	Mini Switch Sinking Switch (NPN), 3-wire, Solid-State Type, LED, 5-28VDC, 100mA, 144" Pigtail Leads, 90° version
NMHQCS-90	Mini Switch Sinking Switch (NPN), 3-wire, Solid-State Type, LED, 5-28VDC, 100mA, with M8 Male Swivel Connector, 90° version
NMHQCS-90	Mini Switch Sinking Switch (NPN), 3-wire, Solid-State Type, LED, 5-28VDC, 100mA, with M8 Male Swivel Connector and 2m Mating Cable, 90° version
NMHQCXS-90	Mini Switch Sinking Switch (NPN), 3-wire, Solid-State Type, LED, 5-28VDC, 100mA, with M8 Male Swivel Connector and 5m Mating Cable, 90° version
NC4	Straight M8 Straight M8 Female Connector, Threaded Connection with 2 Meter Cable
NC4-S	Straight M8 Female Connector, Threaded Connection with 2 Meter Shielded Cable
NC4X	Straight M8 Female Connector, Threaded Connection with 5 Meter Cable
NC4X-S	Straight M8 Female Connector, Threaded Connection with 5 Meter Shielded Cable
NC5-S	Right Angle M8 Female Connector, Threaded Connection with 2 Meter Shielded Cable
NC5X-S	Right Angle M8 Female Connector, Threaded Connection with 5 Meter Shielded Cable

## Warning

Improper selection, misuse, age or malfunction of components used in systems can cause failure in various modes. The system designer is warned to consider the failure modes of all component parts and to provide adequate safeguards to prevent personal injury or damage to equipment or property in the event of such failure modes. System designers and end users are cautioned to consult instruction sheets and specifications available from the factory. The system designer/end user is responsible for verifying that all requirements for the application are met.

## Warranty

The products described herein are warranted subject to seller's Standard Terms and Condition of Sale, available at seller's website.

 **WARNING:** This product can expose you to chemicals including lead, which is know to the State of California to cause cancer. For more information, go to [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov).