



# E-Series Dual Guide Rod Cylinders

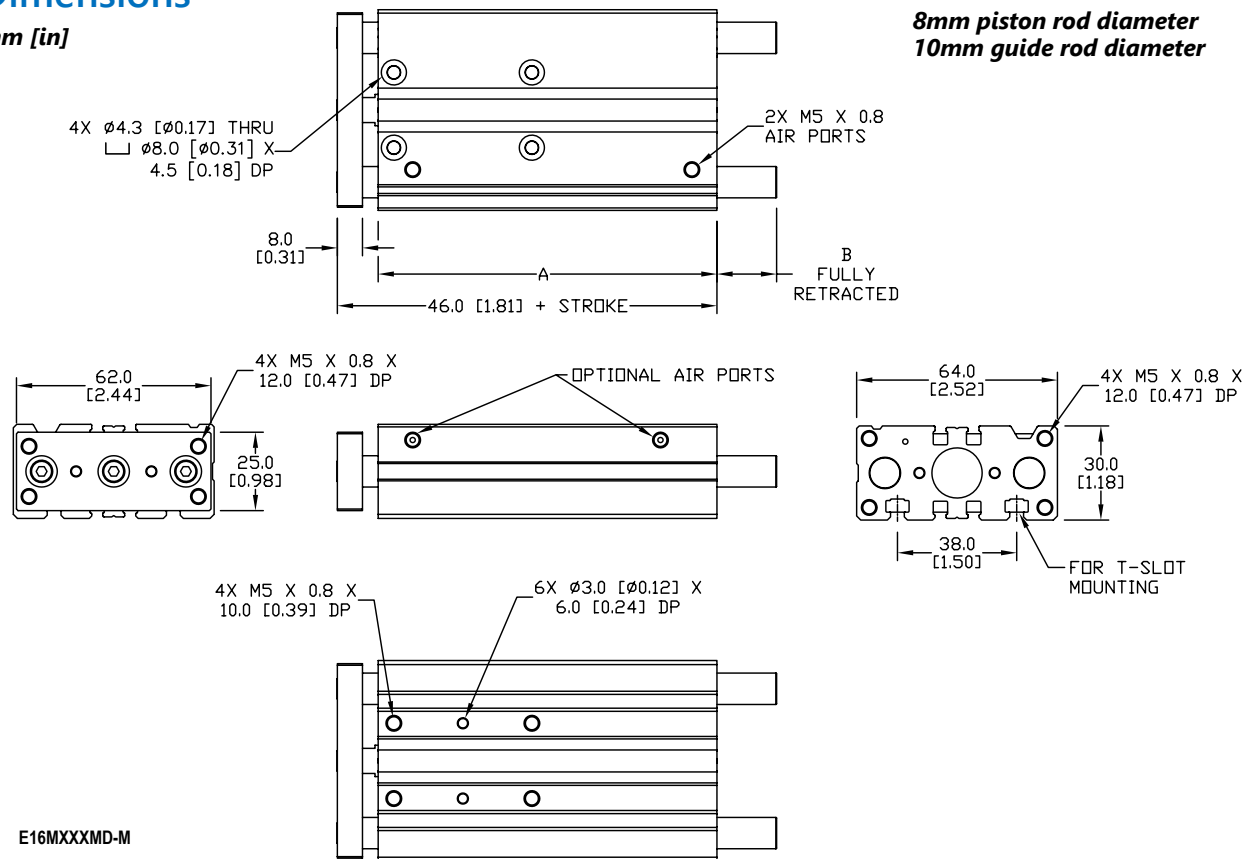
## 16 mm Bore, Double Acting



| 16 mm Bore E-Series Dual Guide Rod Cylinders - Double Acting |                    |               |               |              |          |
|--------------------------------------------------------------|--------------------|---------------|---------------|--------------|----------|
| Part Number                                                  | Stroke Length (mm) | "A" (mm [in]) | "B" (mm [in]) | Weight (lbs) | Price    |
| <a href="#">E16M010MD-M</a>                                  | 10                 | 43.0 [1.69]   | -3.0 [-0.12]  | 0.8          | \$237.00 |
| <a href="#">E16M020MD-M</a>                                  | 20                 | 53.0 [2.09]   | -3.0 [-0.12]  | 0.9          | \$219.00 |
| <a href="#">E16M025MD-M</a>                                  | 25                 | 58.0 [2.28]   | -3.0 [-0.12]  | 1.0          | \$236.00 |
| <a href="#">E16M030MD-M</a>                                  | 30                 | 63.0 [2.48]   | -3.0 [-0.12]  | 1.0          | \$236.00 |
| <a href="#">E16M040MD-M</a>                                  | 40                 | 73.0 [2.87]   | -3.0 [-0.12]  | 1.2          | \$236.00 |
| <a href="#">E16M050MD-M</a>                                  | 50                 | 83.0 [3.27]   | -3.0 [-0.12]  | 1.3          | \$236.00 |
| <a href="#">E16M075MD-M</a>                                  | 75                 | 108.0 [4.25]  | 19.0 [0.75]   | 1.7          | \$248.00 |
| <a href="#">E16M100MD-M</a>                                  | 100                | 133.0 [5.27]  | 19.0 [0.75]   | 2.0          | \$273.00 |
| <a href="#">E16M125MD-M</a>                                  | 125                | 158.0 [6.22]  | 49.0 [1.93]   | 2.3          | \$294.00 |
| <a href="#">E16M150MD-M</a>                                  | 150                | 183.0 [7.20]  | 49.0 [1.93]   | 2.6          | \$238.00 |
| <a href="#">E16M175MD-M</a>                                  | 175                | 208.0 [8.19]  | 49.0 [1.93]   | 2.9          | \$319.00 |
| <a href="#">E16M200MD-M</a>                                  | 200                | 233.0 [9.17]  | 49.0 [1.93]   | 3.2          | \$322.00 |

## Dimensions

mm [in]



See our website [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete Engineering drawings.



# E-Series Dual Guide Rod Cylinders

## - Load and Torque Ratings

| Cylinder Max Side Load Ratings (lbs) |             |     |     |     |     |     |     |     |     |     |     |     |     |
|--------------------------------------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Bore Size<br>(mm)                    | Stroke (mm) |     |     |     |     |     |     |     |     |     |     |     |     |
|                                      | 10          | 20  | 25  | 30  | 40  | 50  | 75  | 100 | 125 | 150 | 175 | 200 | 250 |
| 12                                   | 9.9         | 7.4 | 6.5 | 5.9 | 9.2 | 8.1 | 5.9 | 5.0 | 4.3 | 3.8 | -   | -   | -   |
| 16                                   | 15          | 11  | 9.5 | 8.3 | 14  | 13  | 8.3 | 7.2 | 6.1 | 5.4 | 5.0 | 4.5 | -   |
| 20                                   | -           | 18  | 14  | 13  | 28  | 25  | 20  | 17  | 15  | 13  | 12  | 11  | 9.5 |
| 25                                   | -           | 21  | 20  | 17  | 32  | 29  | 23  | 19  | 20  | 18  | 16  | 15  | 12  |
| 32                                   | -           | -   | 46  | 43  | 40  | 37  | 41  | 35  | 32  | 29  | 26  | 24  | 20  |
| 40                                   | -           | -   | 46  | 43  | 40  | 37  | 41  | 35  | 32  | 29  | 26  | 24  | 20  |
| 50                                   | -           | -   | 67  | 64  | 60  | 55  | 61  | 54  | 49  | 44  | 40  | 37  | 32  |
| 63                                   | -           | -   | 67  | 64  | 60  | 55  | 61  | 54  | 49  | 44  | 40  | 37  | 32  |

Conversion: 1 lb = 4.45 N

| Cylinder Max Torque Ratings (in-lb) |             |      |      |      |       |      |      |      |      |      |      |      |      |
|-------------------------------------|-------------|------|------|------|-------|------|------|------|------|------|------|------|------|
| Bore Size<br>(mm)                   | Stroke (mm) |      |      |      |       |      |      |      |      |      |      |      |      |
|                                     | 10          | 20   | 25   | 30   | 40    | 50   | 75   | 100  | 125  | 150  | 175  | 200  | 250  |
| 12                                  | 7.97        | 6.99 | 6.28 | 5.75 | 6.82  | 6.37 | 4.43 | 3.19 | 2.74 | 2.39 | -    | -    | -    |
| 16                                  | 10.7        | 9.20 | 8.32 | 7.79 | 10.89 | 9.82 | 6.11 | 5.13 | 4.43 | 3.89 | 3.54 | 3.19 | -    |
| 20                                  | -           | 13.9 | 12.6 | 11.6 | 21.2  | 19.0 | 16.6 | 14.4 | 12.7 | 11.3 | 10.3 | 9.38 | 7.97 |
| 25                                  | -           | 21.2 | 19.6 | 17.8 | 32.4  | 29.7 | 26.2 | 22.7 | 20.0 | 17.9 | 16.2 | 14.8 | 12.6 |
| 32                                  | -           | -    | 56.2 | 53.1 | 50.7  | 45.4 | 50.4 | 44.0 | 39.1 | 35.2 | 32.0 | 29.3 | 25.1 |
| 40                                  | -           | -    | 62.0 | 58.4 | 54.1  | 50.1 | 55.5 | 48.5 | 43.1 | 38.8 | 35.2 | 32.3 | 27.7 |
| 50                                  | -           | -    | 115  | 112  | 97.4  | 95.6 | 106  | 93.8 | 84.1 | 76.1 | 69.6 | 64.1 | 55.2 |
| 63                                  | -           | -    | 130  | 120  | 114   | 107  | 119  | 105  | 94.7 | 85.8 | 78.4 | 72.2 | 62.3 |

Conversion: 1 in-lb = 0.113 N-m

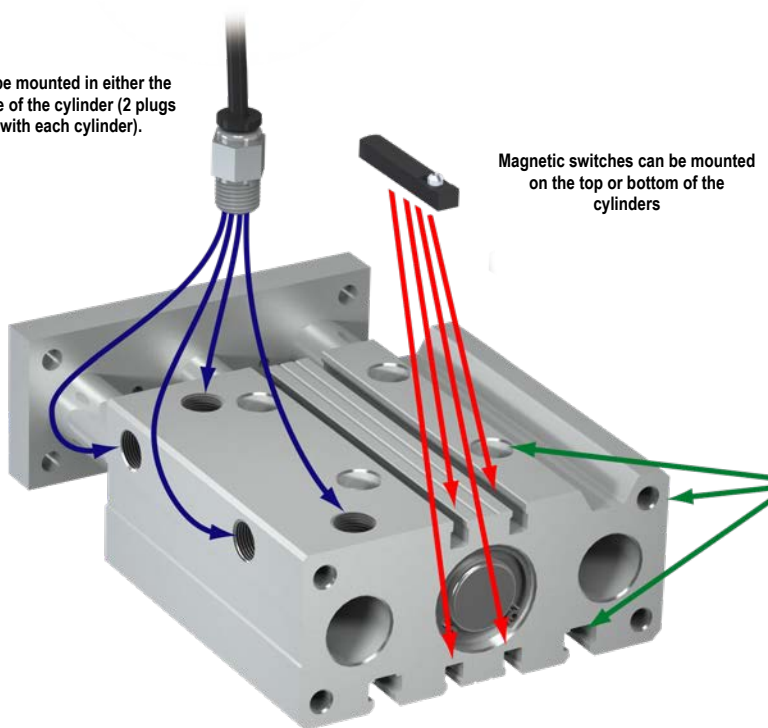


# E-Series Dual Guide Rod Cylinders

Fittings can be mounted in either the top or the side of the cylinder (2 plugs included with each cylinder).

Magnetic switches can be mounted on the top or bottom of the cylinders

Multiple mounting options



NITRA pneumatic guided actuator with dual guide rods, bronze bushings, extruded aluminum housing and switch mounting tracks.

- Mild steel tooling plate
- Nitrile / Buna-N O-rings

- Eight bore sizes
- Interchangeable with other popular brands
- Work with 4mm square T-slot cylinder switches
- Chrome plated stainless steel guide rods



| E-Series Dual Guide Rod Cylinder Specifications |                          |      |         |      |        |       |         |       |
|-------------------------------------------------|--------------------------|------|---------|------|--------|-------|---------|-------|
| Bore Size (mm)                                  | 12                       | 16   | 20      | 25   | 32     | 40    | 50      | 63    |
| Action                                          | Double acting            |      |         |      |        |       |         |       |
| Fluid                                           | Air (clean/dry)          |      |         |      |        |       |         |       |
| Temperature Range                               | 23 to 158°F (-5 to 70°C) |      |         |      |        |       |         |       |
| Pressure Range                                  | 18-142 psi (1.2-10 bar)  |      |         |      |        |       |         |       |
| Proof Pressure                                  | 213 psi (15 bar)         |      |         |      |        |       |         |       |
| Lubrication                                     | Not required             |      |         |      |        |       |         |       |
| Cushion Type                                    | Urethane Bumper          |      |         |      |        |       |         |       |
| Non-Rotate Tolerance                            | ±0.10°                   |      | ±0.09°  |      | ±0.08° |       | ±0.06°  |       |
| Port Size                                       | M5x0.8                   |      | 1/8-NPT |      |        |       | 1/4-NPT |       |
| Extend Force @ 100 psi (lbs.)                   | 17.5                     | 31.2 | 48.7    | 76.1 | 124.7  | 194.8 | 304.3   | 483.2 |
| Retract Force @ 100 psi (lbs.)                  | 9.7                      | 19.0 | 31.2    | 44.9 | 76.0   | 146.1 | 255.6   | 434.5 |



# 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 |  |
|---------------------|----------------------------------------------------------------------------------------|---------------|---------------------|--|
| <b>CPS<br/>CPSF</b> | NITRA A-Series<br>NITRA D-Series<br>NITRA F-Series                                     |               |                     |  |
| <b>CPS9C</b>        | DE-STA-CO<br>Robohand<br>SMC<br>Compact Air<br>Bimba<br>Fabco                          |               |                     |  |
| <b>CPS9D</b>        | NITRA L-Series<br>Fabco<br>Numatics<br>Rotomation                                      |               |                     |  |
| <b>CPS9E</b>        | NITRA L-Series<br>Fabco<br>Numatics<br>Rotomation                                      |               |                     |  |
| <b>CPS9F</b>        | NITRA G-Series<br>Fabco<br>Festo<br>Numatics<br>Rotomation                             |               |                     |  |
| <b>CPS9H</b>        | NITRA E-Series<br>NITRA H-Series                                                       |               |                     |  |
| <b>CPS9M</b>        | Norgren                                                                                |               |                     |  |
| <b>CPS9Q</b>        | NITRA L-Series<br>NITRA G-Series<br>Parker<br>Fabco<br>Festo<br>Numatics<br>Rotomation |               |                     |  |