

## Metric Double Acting *M 24 D [Stroke] [Mounting]*

**Standard Strokes (mm):** 12.5, 25, 37.5, 50, 75, 100, 125, 150, 175, 200, 225, 250, 275, 300 (*Custom strokes also available*)

**Mounting Options:** (N) Nose Mount, (U) Universal Mount, (D) Double Rod

**Use external stops. Do not bottom out the piston under pressure as it can damage the unit!**

### Dimensional

**Bore Diameter:** 24 mm

**Piston Area (Push Direction):** 452.5 mm<sup>2</sup>

**Piston Area (Pull Direction):** 420.8 mm<sup>2</sup>

**Rod Diameter:** 6.35 mm

**Supply:** Clean, Dry Unlubricated Air

**Pressure Range:** Full vacuum to 0.7 MPa

**Minimum pressure required for actuation:** <0.0035 MPa

**Filtration:** 5-micron particle filter (coalescing filter recommended)

### Environment

**Temperature Range:** -20 °C to +100 °C (standard configuration)  
-40 °C to +150 °C (extreme temperature configuration)

### Mounting

**Cylinder Nut Torque:** 4.5 to 6.8 Nm

**Rod Nut Torque:** 1.1 to 2.4 Nm

*Note: Apply tightening/support wrench to the end being mounted only.*

### Cycle Life

The very long cycle life of this product depends on how the cylinder is used as well as the requirements of your application. Leak will increase as the piston and rod seal wear with high number of cycles. High loads and especially high side loads along with cycling can increase friction. Typically, cylinders will last from 1 to 25 million cycles before they are replaced.

**Output:** Double acting (push and pull)

**Push Force (N)** = Supply pressure (MPa) x 452.5  
316.6 N maximum at 0.7 MPa

**Pull Force (N)** = Supply pressure (MPa) x 420.8  
294.5 N maximum at 0.7 MPa

**Piston Friction:** 2% of load typical (without side load)

### Leak

**Piston Leak** <2.2 standard L/min at 0.34 MPa

**Rod Seal Leak** <2.6 standard L/min at 0.34 MPa

### Mass

#### (N) Nose Mount

Total Mass (g) = 154.7 + (1.23 x stroke)

Moving Mass (g) = 42.5 + (0.253 x stroke)

#### (U) Universal Mount

Total Mass (g) = 181.2 + (1.23 x stroke)

Moving Mass (g) = 42.5 + (0.253 x stroke)

#### (D) Double Rod

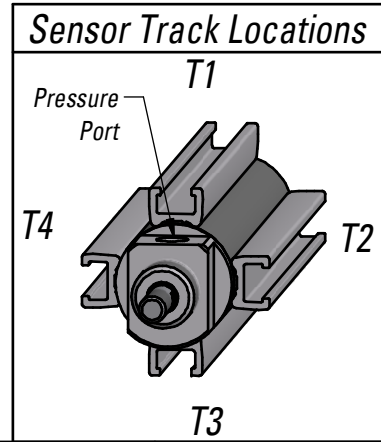
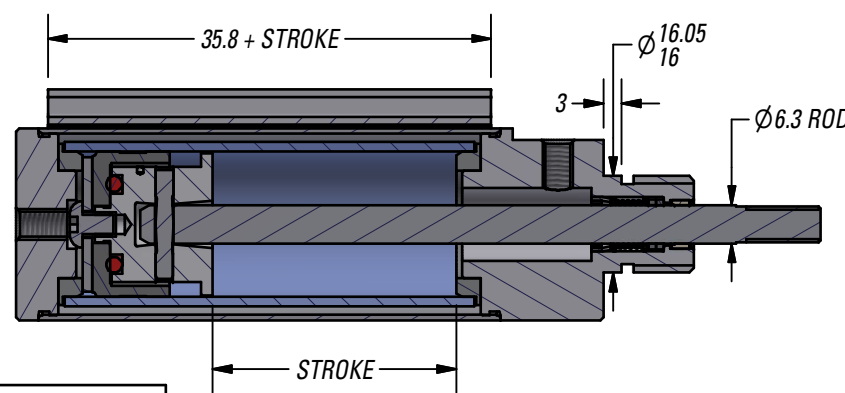
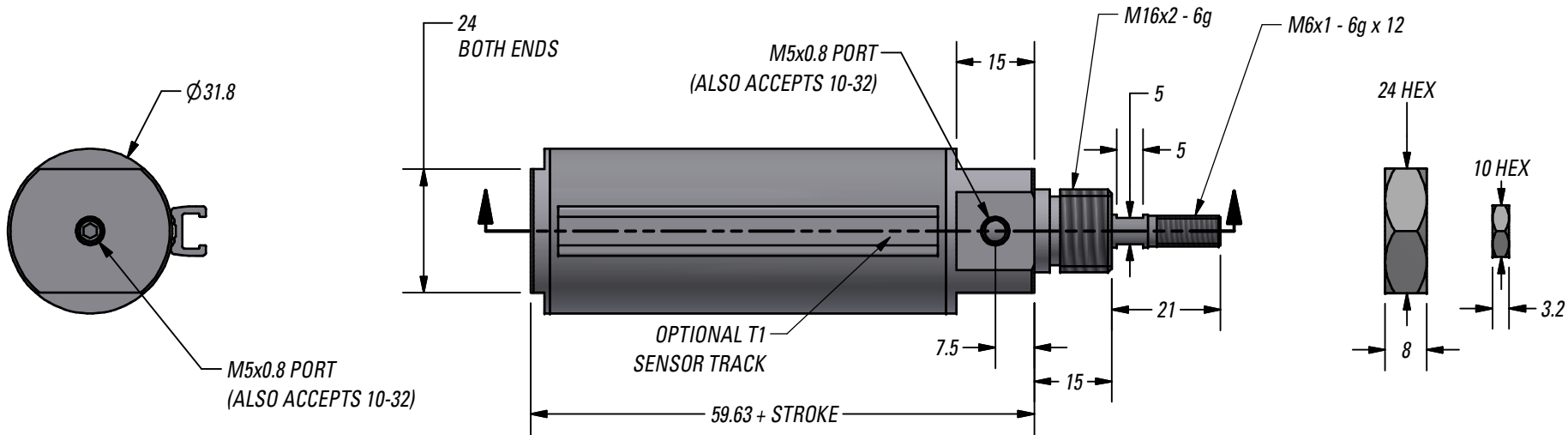
Total Mass (g) = 250.7 + (1.48 x stroke)

Moving Mass (g) = 74.5 + (0.505 x stroke)

### Sensors

**Proximity switches:** GL series sensors mount in T tracks and switch on when the piston magnet is detected.

**Position feedback:** GX series sensors mount in T tracks and output a signal proportional to the position of the piston.



STROKE	PART NUMBER
12.5	M 24 D 12.5 N
25.0	M 24 D 25.0 N
37.5	M 24 D 37.5 N
50.0	M 24 D 50.0 N
75.0	M 24 D 75.0 N
100.0	M 24 D 100.0 N
125.0	M 24 D 125.0 N
150.0	M 24 D 150.0 N
175.0	M 24 D 175.0 N
200.0	M 24 D 200.0 N
225.0	M 24 D 225.0 N
250.0	M 24 D 250.0 N
275.0	M 24 D 275.0 N
300.0	M 24 D 300.0 N

**ADDITIONAL OPTIONS**

1a. Want a magnet attached to the piston and also want sensor mounting tracks? Add any combination of tracks, T1, T2, T3, T4  
 Example: M24D37.5NT1T3  
 OR

1b. Only want a magnet attached to the piston? Add "M" to the end of the part number  
 Example: M24D37.5NM

2. Add "-ET" after all other options for extreme temperature option.

		35 LOIS ST NORWALK CT 06851 US	203-846-2021 www.airpot.com
PART <h1>M24 D - N</h1>		REV 1223AG	
AIRPEL, METRIC MODEL 24		UNITS IN mm	