

Metric Single Acting *M 16 XD [Stroke] [Mounting]*

Available Strokes (mm): 12.5, 25, 37.5, 50

Mounting Options: (N) Nose Mount, (U) Universal Mount

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

Dimensional

Bore Diameter: 15.9 mm

Piston Area (Push Direction): 198 mm²

Rod Diameter: 5 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: 2.6 to 3.4 N•m

Rod Nut Torque: 0.45 to 0.9 N•m

Cylinder Nut Torque (U Option): 1.1 to 2.3 N•m

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: Single acting (air extend, spring retract)

Push Force (N) = Supply pressure (MPa) x 198
139 N maximum at 0.7 MPa

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

Spring Retract Forces:

Stroke (mm)	Retracted Spring Force (N)	Extended Spring Force (N)
12.5	1.0	1.1
25.0	0.9	1.1
37.5	0.8	1.1
50.0	0.7	1.1

Leak

Piston Leak <1.39 standard L/min at 0.34 MPa

Mass

(N) Nose Mount

Total Mass (g) = 57 + (0.67 x stroke)

Moving Mass (g) = 16.6 + (0.16 x stroke)

(U) Universal Mount

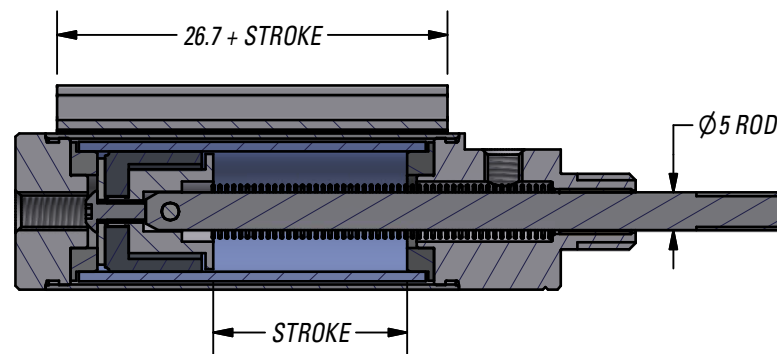
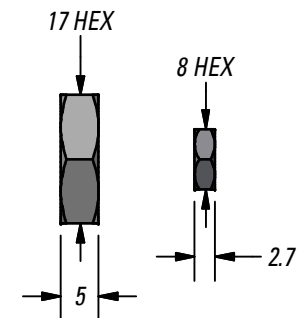
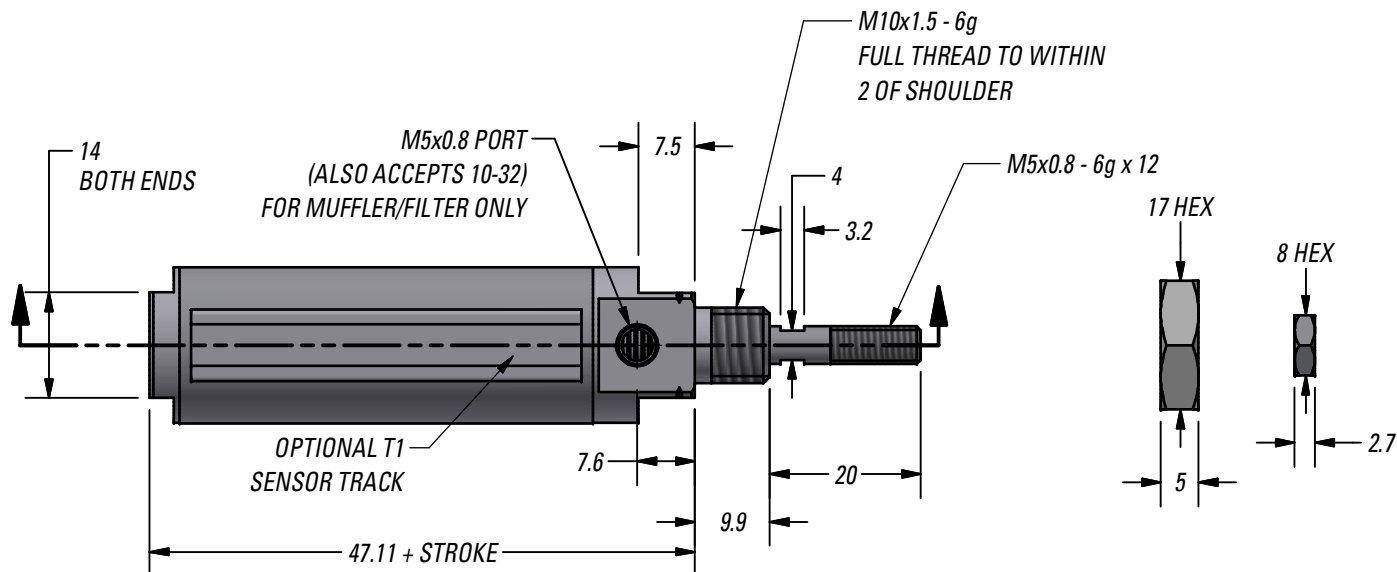
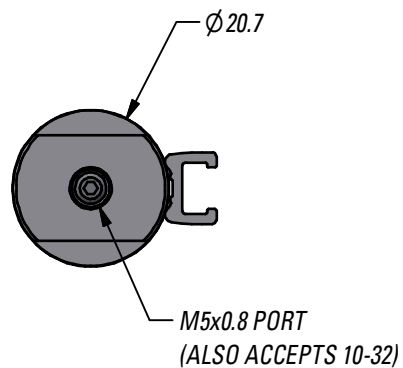
Total Mass (g) = 62.2 + (0.67 x stroke)

Moving Mass (g) = 16.6 + (0.16 x stroke)

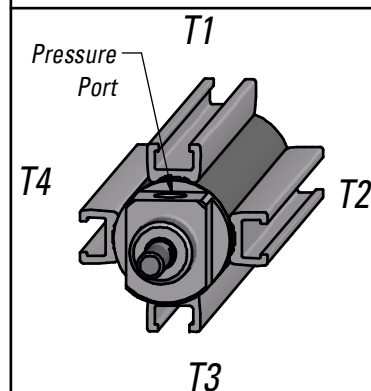
Sensors

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.



Sensor Track Locations



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: M16XD25.0NT1T3

OR

1b. Only want a magnet attached to the piston? Add "M" to the end of the part number

Example: M16XD25.0NM

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

STROKE	PART NUMBER	RETRACTED SPRING FORCE (N)	EXTENDED SPRING FORCE (N)
12.5	M 16 XD 12.5 N	1.0	1.1
25.0	M 16 XD 25.0 N	0.9	1.1
37.5	M 16 XD 37.5 N	0.8	1.1
50.0	M 16 XD 50.0 N	0.7	1.1

Airpot® 35 LOIS ST
NORWALK CT 06851
US

203-846-2021
www.airpot.com

PART

M16 XD - N

REV
1102AF

AIRPEL, METRIC MODEL 16

UNITS IN mm

