

MP 9 S [Stroke] [Mounting] [Rod End]

Available Strokes (mm): 10, 25, 40, 50, 80, 100, 160, 200, 250, 300

Mounting Options: (N) Nose Mount, (S) Front & Rear Stud Mount

Rod End Options: (F) Ball Joint, (V) Plain Thread

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

Dimensional

Bore Diameter: 9.3 mm

Piston Area: 67.7 mm²

Supply: Clean, Dry, Unlubricated Air

Pressure Range: 0.0015 to 0.7 MPa

Filtration: Coalescing filter required with particle filtration of one micron or less

A Particle filter upstream of the coalescing filter is recommended

Mounting

Rod End Option X: Misalignment handling is built into the rod design, so no separate misalignment coupling is needed. Rigidly mount the cylinder and then simply attach the rod end to a linearly guided load. Ensure that the rod does not rub against the inside of the rod clearance hole throughout the entire stroke.

Rod End Option V: A customer-supplied ball joint is required to prevent excess friction or binding due to misalignments. Rigidly mount the cylinder and then attach the rod end to a low friction ball joint of your choice, then connect to a linearly guided load. Ensure that the rod does not rub against the inside of the rod clearance hole throughout the entire stroke.

Cylinder Nut Torque: 2.3 to 3.4 Nm

Rod Nut Torque: 0.22 to 0.56 Nm

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

Output: Single acting (push only)

Push Force (N) = Supply pressure (MPa) x 67.7

0.1 N minimum at 0.0015 MPa

47.4 N maximum at 0.7 MPa

Piston Friction: <0.5% of Output Force with supply pressure above 0.2 MPa

Leak

Piston Leak: <1.7 standard L/min at 0.34 MPa

Environment

Temperature Range: -20 °C to +85 °C

Cycle Life

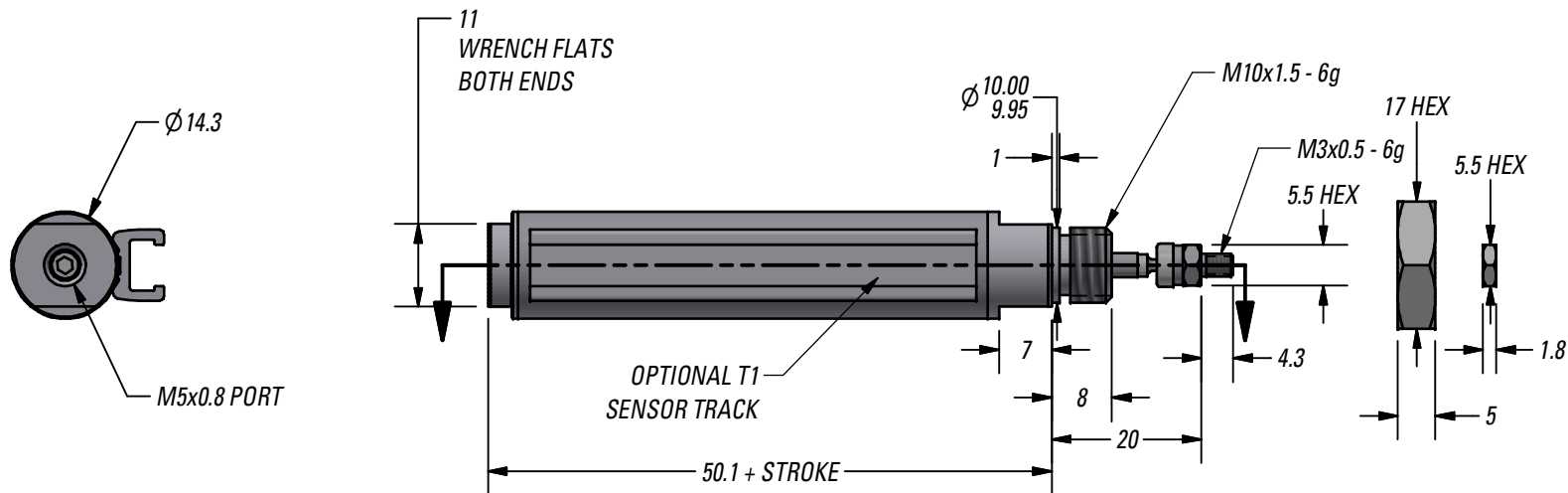
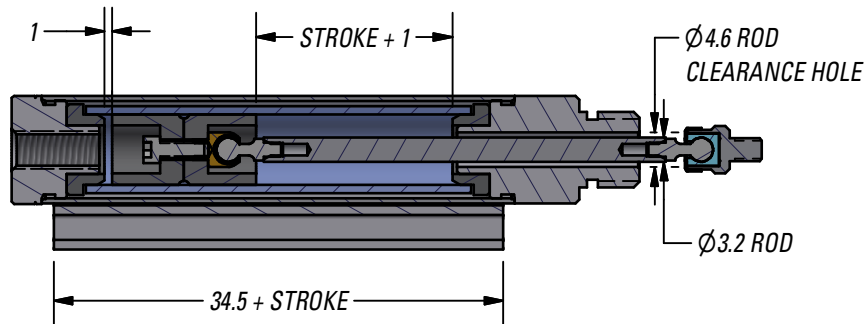
The very long cycle life of this product depends on how the cylinder is used as well as the requirements of your application. Leak will increase as the piston slowly wears with a high number of cycles. Typically, cylinders will last from 10 to 40 million cycles before they are replaced.

Mass

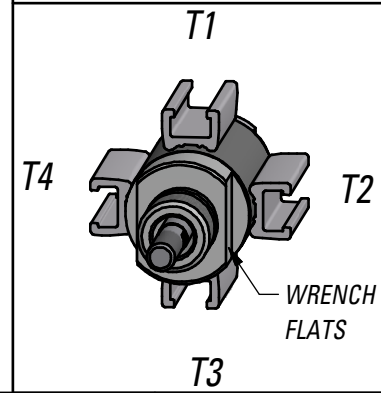
Total Mass (g) = 24.9 + (0.38 x stroke)

Moving Mass (g) = 5.4 + (0.06 x stroke)





Sensor Track Locations



STROKE	PART NUMBER
10.0	MP 9 S 10.0 NF
25.0	MP 9 S 25.0 NF
40.0	MP 9 S 40.0 NF
50.0	MP 9 S 50.0 NF
80.0	MP 9 S 80.0 NF
100.0	MP 9 S 100.0 NF
160.0	MP 9 S 160.0 NF
200.0	MP 9 S 200.0 NF
250.0	MP 9 S 250.0 NF
300.0	MP 9 S 300.0 NF

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: MP9 S 25.0 NF T1T3
 OR

1b. Only want a magnet attached to the piston? Add "M" to the end of the part number
 Example: MP9 S 25.0 NF M

Airpot® 35 LOIS ST NORWALK CT 06851 US		203-846-2021 www.airpot.com
PART MP 9 S - NF		REV 1102AF
AIRPEL PLUS, MODEL 9	UNITS IN mm	