

MP918A and B Pneumatic Damper Actuators

SPECIFICATION DATA



FEATURES

- Rolling Diaphragm operated
- Low friction shaft bearing
- Close tolerance on operating range and stroke
- Versatile mounting and connecting hardware
- Models available for use with UL classified leakage rated (smoke) dampers
- Cost efficient mounting to Honeywell dampers
- Nonoverlapping spring ranges for sequencing
- Reliable—long life

GENERAL

The MP918A and B Damper Actuators position damper blades, controlling the airflow through a particular portion of an HVAC system. The MP918A is the same as the MP918B with a positive positioner.



SPECIFICATIONS

- Models:**
- ❑ MP918A: Actuator with positive positioner
 - ❑ MP918B: Actuator without positive positioner

Maximum Safe Air Pressure:
MP918A: 25 psi (172 kPa)
MP918B: 29 psi (200 kPa)

Net Force Exerted and Stroke:

Model	Operating Range psi (kPa)	Stroke in (mm)	Net Force in Pounds (N) Exerted at Various Pressures	
			0 psi (0 kPa)	18 psi (124 kPa)
MP918B	3 to 7 (21 to 48)	3.5 (90)	52 (231)	244 (1086)
	3 to 13 (21 to 90)	3.5 (90)	50 (222)	89 (396)
	5 to 10 (34 to 69)	3.5 (90)	96 (427)	162 (721)
	8 to 13 (55 to 90)	3.5 (90)	160 (712)	83 (370)
MP918A	8 to 13 (55 to 90) ¹	3.5 (90)	160 (712)	83 (370)

¹Also see MP918A Operating Range and Startpoint Pressure.

Operating Range:
MP918A: 3, 5, or 10 psi (21, 34, or 69 kPa) nonadjustable.
Span factory adjusted for 10 psi; 5 psi feedback spring included; 3 psi feedback spring available.
See Accessories.
MP918B: See following table.

Startpoint Pressure (MP918A):
Adjustable 1.5 to 13 psi (10 to 90 kPa)

Ambient Temperature Range:
MP918A: -20 to 160F (-29 to 70C)
MP918B: -40 to 160F (-40 to 70C)

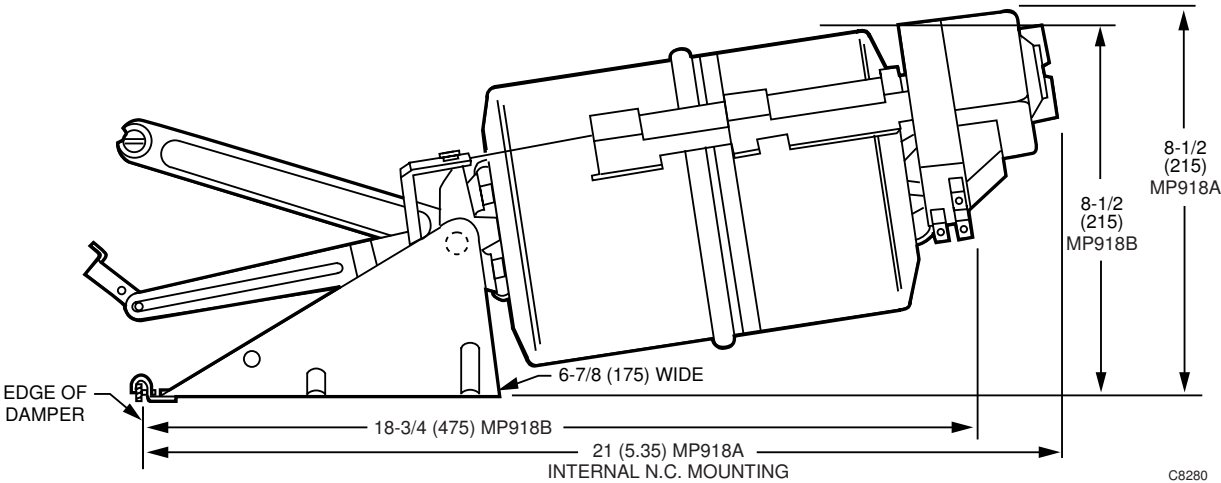
Air Connections:
MP918A: 5/32-in. (4 mm) push-on barb (pilot); 1/4-in. (6 mm) push-on barb (main and branch)
MP918B: 1/4-in. (6 mm) push-on barb
UL listed actuators: Special high temperature plastic tubing pigtails that allow connection to 1/4-in. (6 mm) O.D. copper tubing

Diaphragm:
Neoprene, rolling type
Effective area: 23.8 in² (154 cm²)

Body Material:
Deep Drawn Aluminum

Air Consumption:
MP918A: 0.021 scfm (9.9 ml/s) at 18 psi (124 kPa)
MP918B: Zero

Dimension in Inches (Millimeters):



UL Listed:

Models Available: MP918B: 8 to 13 psi (55 to 90 kPa)
 UL Restrictions: UL listing applies only when used with UL classified Honeywell SD series leakage rated dampers or other dampers with which actuators are listed
 Mainline Pressure Limits: 18 psi (124 kPa) minimum, one section per actuator; 20 psi (138 kPa) minimum, two sections per actuator; 25 psi (172 kPa) maximum
 Damper Limitations:
 D640SD, D641SD: See 77-5129
 D644SD, D645SD: See 77-5140

Accessories:

- ☐ Kit to convert MP918B (8 to 13 psi spring range) to MP918A: 14004264-002 (contains 10 psi feedback spring)
- ☐ Positioner Feedback Spring Kit: 14004210-001 (contains 3, 5, and 10 psi springs)
- ☐ Feedback Spring Kit for 3 psi span (MP918A): 14004509-001 (10 springs per kit)
- ☐ Hitch Pin Bag Assembly: 14004241-002 (contains six clevis pins)
- ☐ Mounting Screw Bag Assembly: 14004237-001 (conversion of internal mounting models to external)
- ☐ Push Rod Assembly: 14004106-001 (conversion of internal normally closed to external)
- ☐ Crank Arm Assembly: 14004107-001 (conversion of internal normally closed to external)
- ☐ Alternate Top Mount Bag Assembly: 14004324-001

EXAMPLE:

Damper Type: D640
 Duct Dimensions: 112 inches
 (A dimension) x 36 inches
 (B dimensions)
 Actuator: MP918B
 Operating Range: 3 to 13 psi (21 to 90 kPa)
 Type of Operation: Modulating Service
 Main Air Pressure: 18 psi (124 kPa)
 The 112-inch A dimension requires three damper sections. Multiplying the B dimension (36 inches) by three equals 108 inches of total B dimension. The MP918B Maximum Damper Load Rating Table shows that one MP918B will operate up to 123 inches of damper. Therefore, one MP918B Actuator is required for this example.

Damper Load Ratings (See following tables):

Damper load ratings for Honeywell Modulfow Dampers (non UL Listed models) are calculated by adding the B dimension of all sections.

Approvals:

MP918B (all models)
 UL Recognized Component
 Category EMKU2
 File No. R18118
 Mailing –25 psi maximum

MP918A maximum damper rating for B dimensions in inches (millimeters).

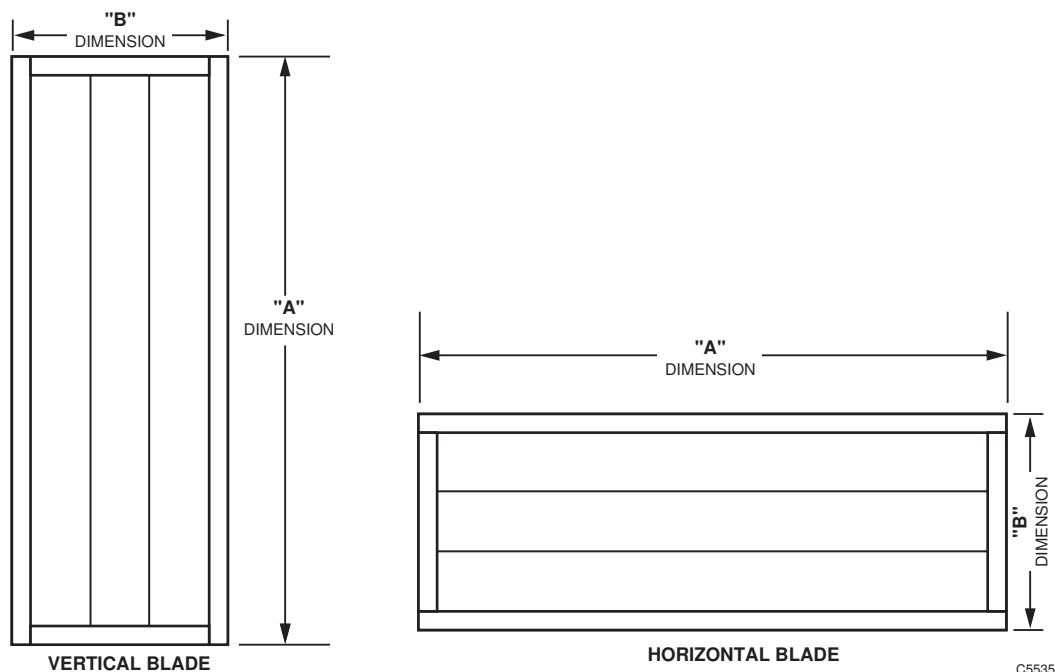
Damper Model	Operating Range psi (kPa)	Modulating Service		2-Position Service
		13 psi (90 kPa)	18 psi (124 kPa)	18 psi (124 kPa)
D640, D641	3 to 7 (21 to 48)	123 (848)	123 (848)	123 (848)
	3 to 13 (21 to 90)	N/A	123 (848)	123 (848)
	5 to 10 (34 to 69)	123 (848)	123 (848)	205 (1413)
	8 to 13 (55 to 90)	N/A	123 (848)	205 (1413)
D642, D643, D644, D645	3 to 7 (21 to 48)	101 (696)	101 (696)	101 (696)
	3 to 13 (21 to 90)	N/A	101 (696)	101 (696)
	5 to 10 (34 to 69)	101 (696)	101 (696)	169 (1165)
	8 to 13 (55 to 90)	N/A	101 (696)	169 (1165)

N/A = Not applicable.

MP918B maximum damper rating for B dimensions in inches (millimeters).

Damper Model	Operating Range psi (kPa)	Modulating Service		2-Position Service	
		18 psi (124 kPa)	20 psi (138 kPa)	18 psi (124 kPa)	20 psi (138 kPa)
D640, D641	8 to 13 55 to 90) ¹	205 (1415)	287 (1979)	205 (1415)	287 (1979)
D642, D643 D644, D645		169 (1165)	236 (1627)	169 (1165)	236 (1165)

¹With positive positioner (3, 5, or 120 psi span). Also applies to MP918B 8-13 psi (55 to 90 kPa) slaves used with MP918A.



Damper A and B dimensions.

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