

## 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) <sup>1</sup>	3.5 (90)	160 (712)	83 (370)

<sup>1</sup>Also 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 pigtailed that allow connection to 1/4-in. (6 mm) O.D. copper tubing

**Diaphragm:**

Neoprene, rolling type  
 Effective area: 23.8 in<sup>2</sup> (154 cm<sup>2</sup>)

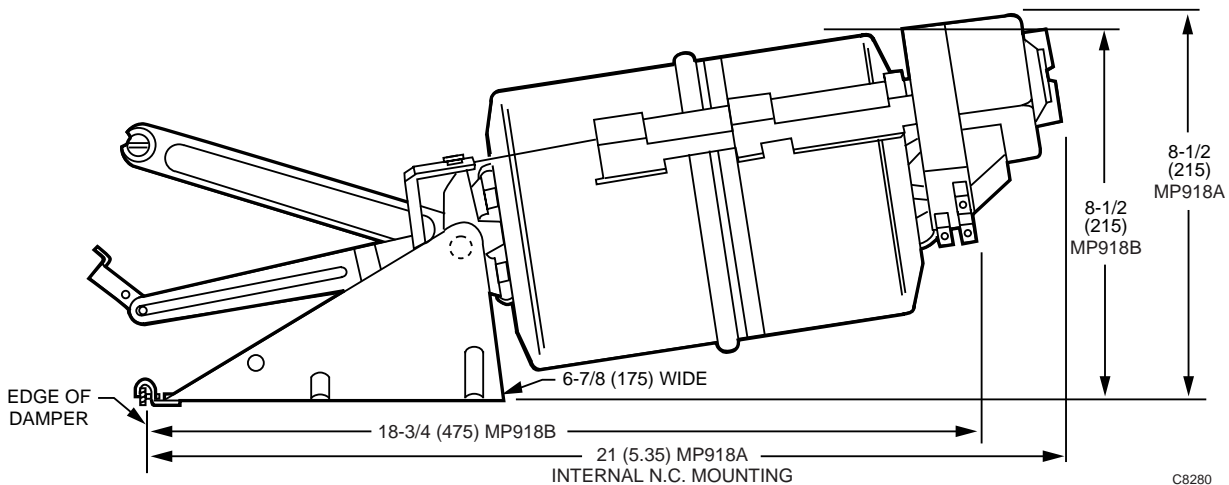
**Body Material:**

Deep Drawn Aluminum

**Air Consumption:**

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

**Dimension in Inches (Millimeters):**



C8280

**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

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  
 Mailine –25 psi maximum

**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.

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

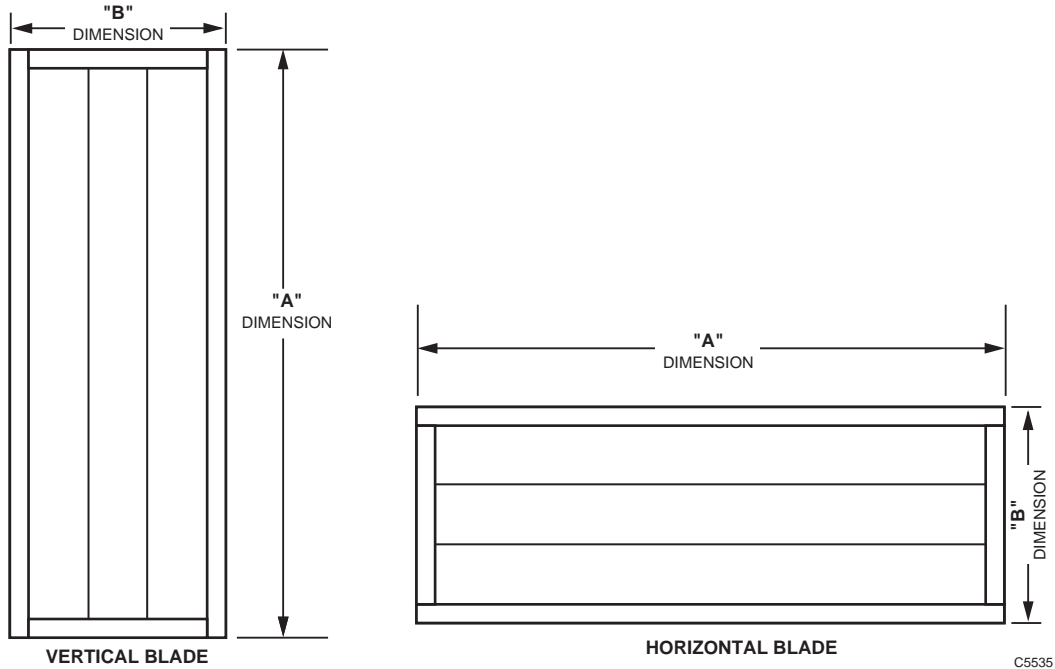
Damper Model	Operating Range psi (kPa)	Modulating Service		2-Position Service
		13 psi (90 kPa)	18 psi (124 kPa)	18 psi (124 kPa)
D640, D641	3 to 7 (21 to 48)	123 (848)	123 (848)	123 (848)
	3 to 13 (21 to 90)	N/A	123 (848)	123 (848)
	5 to 10 (34 to 69)	123 (848)	123 (848)	205 (1413)
	8 to 13 (55 to 90)	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) <sup>1</sup>	205 (1415)	287 (1979)	205 (1415)	287 (1979)
D642, D643 D644, D645		169 (1165)	236 (1627)	169 (1165)	236 (1165)

<sup>1</sup>With 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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