

Pneumatic Valves/Actuators

MP953 Pneumatic Coil Valve Actuators



Without Positioner



With Positioner

Pneumatic actuators provide proportional control of steam or hot or cold liquids in HVAC systems by operating V5011 and V5013 valve assemblies.

Replacement devices are available for older Honeywell actuators.

- Rolling diaphragm for long life and low hysteresis.
- Easily attached to valve.
- May be installed after piping valve.
- Slide lock feature permits simple engagement to valve stem.
- Direct- or reverse-action control.
- Models available with positive positioning relay.

DIMENSIONS, APPROXIMATE:

MP953C: 5 in. (127 mm) dia, 4-5/8 in. (117 mm) high; and either 8 in. (203 mm) dia, 6-1/2 in. (165 mm) high; or 13 in. (330 mm) dia, 10 in. (254 mm) high.

MP953D: 7-1/8 in. (181 mm) dia, 5-5/8 in. (143 mm) high.

MP953E: 5 in. (127 mm) dia, 9-1/4 in. (235 mm) high; and either 8 in. (203 mm) dia., 11-1/8 in. (283 mm) high; or 13 in. (330 mm) dia, 18-1/8 in. (460 mm) high.

MP953F: 7-1/8 in. (181 mm) dia, 10-1/2 in. (222 mm) high. 1/8 in. FPT.

CONNECTIONS: Barb type for 5/32 in. (4 mm) O.D. plastic tubing.

HUMIDITY RATINGS, Operating: 5 to 95% RH.

PRESSURE RATINGS:

Operating, Maximum Safe: 25 psi (172 kPa).

Operating: MP953E,F: Adjustable start point from 1-1/2 to 13 psi (10 to 90 kPa) in 1/4 psi increments; 3, 5, or 10 psi (31, 34, or 69 kPa) operating range, fixed by model.

Springs:

MP953C,D: Fixed by model, 2 to 7, 4 to 11, or 8 to 12 psi (12 to 50, 30 to 75, or 55 to 83 kPa).

MP953E,F: Fixed 8 to 12 psi (55 to 83 kPa) (operating range fixed by positioner).

Close off: Refer to V5011 and V5013 Valves.

TEMPERATURE RATINGS:

Operating: 0 F to 140 F (-18 C to +60 C).

Diaphragm, Maximum: 160 F (71 C) for standard actuators (neoprene diaphragm). 200 F (93 C) for MP953D,F (EPDM diaphragm).

Positive Positioner: 160 F (71 C).

VALVE/ACTUATOR COMPATIBILITY: Refer to V5011 and V5013

Valve/Actuator/Linkage Compatibility and Selection Overview.

REPLACEMENT PARTS:

MP953C,E-all models (also use on MP953A):

Size	Old Style ^a		New Style ^a	
	Neoprene	Silicone ^b	Neoprene	Silicone ^b
5 in.	310673	310668	312760	313745
8 in.	—	—	311750	314153
13 in.	—	—	312505	—

^a Old style 5 in. diaphragms have a flat edge around the circumference while new style diaphragms have a beaded roll edge. They are not interchangeable.

^b Silicone diaphragms are used in operators requiring higher temperature ratings. They are interchangeable with neoprene diaphragms of the same style and size.

MP953D,F—all models (also use on MP953B):

14002039-001 Seal.

14002040-002 Diaphragm.

14003124-002 Repair Kit (includes seal and diaphragm).

ACCESSORIES:

14004213-001 Feedback Spring Kit: includes 3 psi spring (white), 5 psi spring (bronze), 10 psi spring (violet).

Positive Positioner Retrofit or Repair Kits:

14004214-001 MP953A or E, 5 in., direct acting, 3/4 in. (19 mm) stroke (includes Positioner, O-ring, and Feedback Spring Kit 14004211-001). Refer to Replacement Data 85-0105).

14004139-001 MP953A or E, 8 & 13 in., direct acting 3/4 in. (19 mm) stroke (includes Positioner, O-ring, and Feedback Spring Kit 14004211-001). Refer to Replacement Data 85-0105).

14004140-001 MP953A or E, 8 & 13 in., direct acting, 1-1/2 in. (38 mm) stroke (includes Positioner, O-ring, and Feedback Spring Kit 14004212-001). Refer to Replacement Data 85-0105).

14004138-001 MP953B or F, reverse acting (includes Positioner, Bracket, Lever, Plate, Bias Spring, Tube, Mounting Screws, and Feedback Spring Kit 14004213-001). Refer to Replacement Data 85-0103).

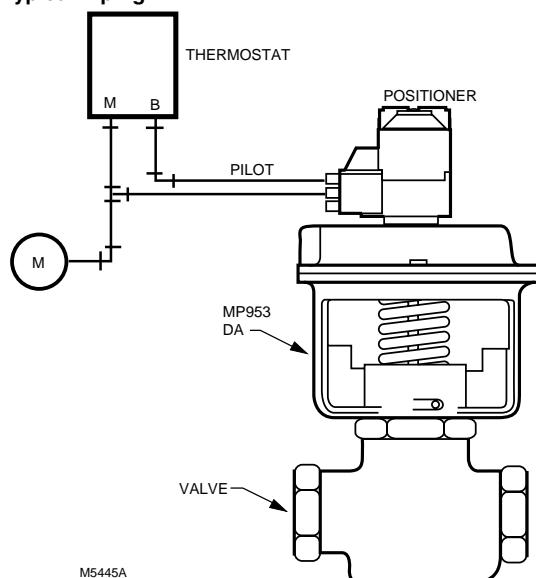
Stem extensions:

Part Number	Actuator Size	Stem Travel
311851-00062	8 in.	3/4 in.
14004697-001	13 in.	3/4 in.
312466-00605	13 in.	1-1/2 in.

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MP953 continued

MP953 Typical Piping.



Available only through Honeywell Authorized Distributors

ORDER NUMBER	Description	Spring Range	Travel	Includes	
MP953C1000	Valve Actuator, 5 in. diaphragm, DA	2 to 7 psi (14 to 48 kPa)	3/4 in. (19 mm)	Standard model.	
MP953C1018		8 to 12 psi (55 to 83 kPa)			
MP953C1026		4 to 11 psi (28 to 76 kPa)			
MP953C1067 ^a	Valve Actuator, 8 in. diaphragm, DA	2 to 7 psi (14 to 48 kPa)			
MP953C1075 ^a		8 to 12 psi (55 to 83 kPa)			
MP953C1083 ^a		4 to 11 psi (28 to 76 kPa)			
MP953C1471 ^a	Valve Actuator, 13 in. diaphragm, DA	2 to 7 psi (14 to 48 kPa)	1-1/2 in. (38 mm)		
MP953C1489 ^a		4 to 11 psi (28 to 76 kPa)			
MP953D1107	Valve Actuator, 7-1/8 in. diaphragm, RA	8 to 13 psi (55 to 90 kPa)	3/4 in. (19 mm)	EPDM diaphragm.	
MP953D1131		4 to 11 psi (28 to 76 kPa)			
MP953D1172		3 to 7 psi (21 to 48 kPa)			
MP953E1301	Valve Actuator, 5 in. diaphragm, DA	Actuators with positioners have 4 to 11 psi (28 to 76 kPa) springs	3/4 in. (19 mm)	Positive positioner, 3 psi (21 kPa) range.	
MP953E1319				Positive positioner, 5 psi (34 kPa) range.	
MP953E1327				Positive positioner, 10 psi (69 kPa) range.	
MP953E1368 ^a	Valve Actuator, 8 in. diaphragm, DA			Positive positioner, 3 psi (21 kPa) range.	
MP953E1376 ^a				Positive positioner, 5 psi (34 kPa) range.	
MP953E1384 ^a				Positive positioner, 10 psi (69 kPa) range.	
MP953E1400 ^a	Valve Actuator, 13 in. diaphragm, DA		1-1/2 in. (38 mm)	Positive positioner, 5 psi (34 kPa) range.	
MP953E1418 ^a				Positive positioner, 10 psi (69 kPa) range.	
MP953E1443 ^{a,b}			3/4 in. (19 mm)	Positive positioner, 10 psi (69 kPa) range	
MP953F1093	Valve Actuator, 7-1/8 in. diaphragm, RA		8 to 13 psi (55 to 90 kPa) springs	3/4 in. (19 mm)	Positive positioner, 3 psi (21 kPa) range, EPDM diaphragm.
MP953F1101					Positive positioner, 5 psi (34 kPa) range, EPDM diaphragm.
MP953F1119					Positive positioner, 10 psi (69 kPa) range, EPDM diaphragm.

^a Stem extension assembly furnished with device.

^b For 2-1/2 and 3 in. valves.

NOTE: Honeywell pneumatic actuators cannot be used on competitive valve bodies. The complete valve assembly must be replaced. Select actuator from the preceding table and refer to the V5011 and V5013 Valve pages in this catalog for valve selections. When replacing older Honeywell actuators (other than MO953), also replace the valve.