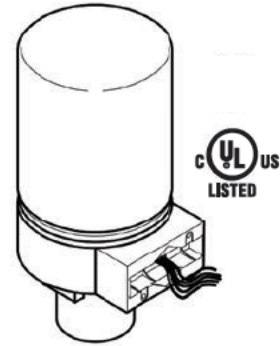


Application

These MP-54xx Series actuators provide electronic proportional control of valves requiring the return to normal position upon power interruption.

Features

- Proportional control by variable Vdc input signal.
- Compatibility with 2...15 Vdc System 8000 input signals.
- Spring return.
- Fixed 3 Vdc operating span.
- Adjustable 2...12 Vdc start point for paralleling or sequencing of actuators.
- 10,000 Ω or greater input impedance.
- 24 and 120 Vac models.
- Damper models with linkage or base models that require separate damper or valve linkage.
- Die cast lower housing with ½" conduit opening and painted steel upper housing.
- Hydraulic actuator with oil immersed motor, transducer, and pump.



MP-541x Series Positive Positioning

Model Table

Part Number	Actuator Power Input					Positive Positioner ^a	Timing in Seconds @ 72° F (22° C)			Linkage
	AC Voltage +10% -15%	60 Hz		50 Hz			No Load Stroke		Retract on Power Loss	
		Watts	Amps	Watts	Amps		To Extend	To Retract		
MP-5410	120	11.7	0.16	12.9	0.19	Yes	60	40	15	AV-600 AV-601 ^b AV-7600-1
MP-5413	24	12.0	0.80	13.2	0.97					

a - Internal feedback circuitry provides positive positioning of valve stem in relation to control signal.
b - May be required for steam or hot water.

Specifications

Inputs	Compatible with 2...15 Vdc from System 8000 controllers
Operating Span	Approx. 3 Vdc fixed.
Start Point	Adjustable 2...12 Vdc. Factory set at 6 Vdc. Impedance: 10,000 Ω or greater.
Connections	Color-coded 4 ft. (1.2 m) leads.
Outputs	
Electrical	Internal Power Supply: 20 Vdc, 25 mA.
Mechanical	Stroke, Valve: Approximately 9/16" (14.3 mm) over a nominal 6 Vdc (fully retracted) to 9 Vdc (fully extended) input range.
Environment	
Ambient Temperature Limits	Operating: -20...140° F (-29...60° C) For valve actuators: Refer to Pg. 29, 2. VB-7000 Series ½"...2" Globe Valves
Humidity	5...95% RH, non-condensing
Location	NEMA Type 1
Dimensions	6¼ x 3¼ Dia." (171 x 83 mm)
Regulatory Compliance	RoHS and REACH

Restrictions on the Maximum Ambient Temperature for Valve Actuator				
Maximum Temperature of Media in the Valve Body (Check Valve Ratings)	Maximum Ambient Temperature of MP-541x or MPR-5x1x		Maximum Ambient Temperature of MA-521x or MP-521x	
	AV-600 ^a or AV-7600 ^b Only for Chilled Water Applications Only	AV-600 ^a or AV-7600 ^b & AV-601	AV-600 ^a or AV-7600 ^b Only	AV-600 ^a or AV-7600 ^b & AV-601
366°F (180°C)	Do Not Use	88°F (31°C)	90°F (32°C)	90°F (32°C)
340°F (171°C)	Do Not Use	93°F (34°C)	100°F (38°C)	100°F (38°C)
281°F (138°C)	Do Not Use	103°F (39°C)	115°F (46°C)	140°F (60°C) ^c
181°F (83°C)	Do Not Use	120°F (48°C)	140°F (60°C) ^c	140°F (60°C) ^c
80°F (26°C)	140°F (60°C) ^c	140°F (60°C) ^c	140°F (60°C) ^c	140°F (60°C) ^c

a - For detailed valve linkage installation instructions, refer to AV-600 Hydraulic Actuator Valve Linkage Kit Installation Instructions, F-26279.
 b - For detailed valve linkage installation instructions, refer to AV-7600 Hydraulic Actuator Valve Linkage Kit Installation Instructions, F-26235.
 c - Maximum allowable ambient temperature of the actuator.

Accessories	
Valve Linkages	
AV-601	Valve linkage extension for hot water and steam applications; use with AV-7600.
AV-7600-1	Valve linkage for VB-7000.

Application

The AV-7600-1 valve linkage kit is used to field assemble MA-521x, MP-521x, MP-541x and MP-561x round hydraulic actuators to ½" through 2" VB-7000 series valve bodies.

Features

- Provides direct-couple interface between MA, MP and MPR-5xxx actuators and valve bodies.
- Kit fits all VB-7000 series valve bodies.
- Includes spring choices for higher 2-Way valve close off.

Specifications

- Actuator mounting: In any upright position above the center line of the valve body. For steam applications only, mount the actuator above the valve body at 45° from vertical.

AV-7600-1
Hydraulic Actuator Valve
Linkage Kit

