

Automatic Positioning Needle Valves, Ball Valves

- High Accuracy

- Compact

- High Torque



High reliability and precision control is no longer tied to big size and high cost. The MPA series of electric valve actuators provides precise valve positioning in a compact, simple to install package. Simple on/off control or incremental (proportional) control is possible. TTL inputs for 2, 3 or 4-way ball valve control with position feedback. Serial (RS485) or analog (1 - 5V, 4 - 20mA) inputs for proportional control of needle valves. Field selectable for operation on 12/24 VAC/VDC.

Specifications

Operating Voltage	12 or 24V AC/DC
Positioning Accuracy	Ball valves ($\pm 0.5^\circ$) / Needle Valves ($\pm 0.32^\circ$)
Operating Temperature	-20°C to +80°C
Housing	Anodized aluminum
IP Rating	IP65 (Nema 4x)
Dimensions	3.9" x 2.75" x 1.75" (without valve)
Weight	1.1 lbs. (without valve)

Performance Chart

Power Supply			Speed / Torque			Resolution (degrees)		
Volts	Amps		RPM (needle valves)	1/4 turn (seconds) (ball valves)	Torque (in-lbs.)	Analog (1 - 5V, 4-20mA)	Serial (RS485)	
	VDC	VAC					Full	Micro
12V AC/DC	1.0	1.5	3	5	24	3.75	3.75	0.076
	0.7	1.2	5	3	16	3.75	3.75	
	1.0	1.5	9	1.7	8	3.75	3.75	0.23
	0.7	1.2	14	1	5	3.75	3.75	
24 VDC	1.3	-	5	5	34	3.75	3.75	0.076
	1.1	-	7.5	2	27	3.75	3.75	
	1.0	-	9	1.7	24	3.75	3.75	
	1.3	-	15	1	11	3.75	3.75	0.23
	1.1	-	22	0.7	9	3.75	3.75	
	1.0	-	26	0.6	8	3.75	3.75	
24 VAC	-	2.1	6	2.5	33	3.75	3.75	0.076
	-	1.8	9	1.7	30	3.75	3.75	
	-	1.6	12	1.3	20	3.75	3.75	
	-	2.1	18	0.8	11	3.75	3.75	0.23
	-	1.8	29	0.5	10	3.75	3.75	

TTL Discreet Positioning of Ball Valves

INPUT		Command to Actuator
Low	Low	(4 way ball valves) Moves to or remains in position opposite to center position
High	Low	(2, 3 or 4 way ball valves) Moves to or remains in left position
Low	High	(2, 3 or 4 way ball valves) Moves to or remains in right position
High	High	(2, 3 or 4 way ball valves) Moves to or remains in center position
OUTPUT		Feedback from Actuator
Low	Low	Actuator is in the position as requested by input
High	Low	Actuator is in motion to requested position
Low	Low	Actuator has failed to reach requested position (25 second time-out)

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