

General Description: Parker 70 and 80 Series Electric Actuators are designed for electric actuation of Parker's B Series, MB Series, HB Series, and SWB Series Ball Valves. They provide reliable, cost effective, remote valve actuation. The simplicity of design provides accessible and easy wiring installation. The convenience and accuracy of advanced modular electronics gives the user the ability to wire in accessories without all the hard wiring hassles. The master PC ("mother") board accepts plug-in modular ("daughter") boards to allow for a variety of accessory functions. Other than connecting a power source, there is no internal wiring to tangle with, ever. With a variety of accessories as well as superior actuator design, Parker's Ball Valves with the 70 or 80 Series actuators are the obvious choice.

Features:

- Bi-directional actuation
- Mother/daughter board, modular electronics technology
- Circuit board readily accepts plug-in connectors
- Variety of plug-in accessory boards are available
- Easy installation, no hard-wiring required
- NEMA 4 (weatherproof), 4X (weatherproof with corrosion resistance), NEMA 7 (explosion proof, gases) & 9 (explosion proof, dust) - Class I, Div. I, Group C&D; Class II, Div. I, Group E, F, and G; Class III
- Highly efficient spur gear power train
- Lubrication: Permanently lubricated gear train and bearings
- Manual override
- Visual position indicator
- Available for the B Series, MB Series, HB Series and SWB Series ball valves
- Available for 2-way (90°) and 3-way (180°) configurations
- Approximate weight: 17 lb
- CSA certified (Option)
- Two Limit Switches: Single pole, double throw, rated for 1/3 HP, 10 amps @ 125/230 VAC, CSA certified

ELECTRIC ACTUATORS**80 SERIES****SPECIFICATIONS**

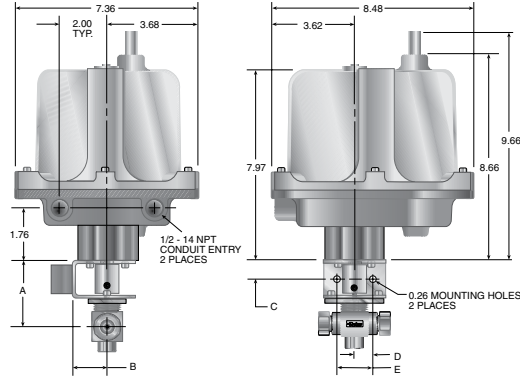
- Voltage: 24, 115 or 230 VAC (50/60 Hz); 12 or 24 VDC
- Torque: 150, 300, 600, 1000 in lb
- Enclosure: Epoxy coated cast aluminum
- Duty cycle: 75%; 100% (VDC models)
- Actuator bolt pattern: ISO standard (5211)
- Conduit connection: 1/2" NPT (2 places)
- Output drive: ISO compatible female drive output
- Temperature limits (all models): 32° F to 150° F; (-40° F minimum with heater and thermostat)

STANDARD OPTIONS

- Additional limit switches and cams (specify up to 2)
- Heater and thermostat (For operation to -40° F)
- Modulating control package with position re-transmit (4-20mA, 0-10 VDC, includes potentiometer)
- CE (European Conformity) marking available
- CSA Certified

ELECTRIC ACTUATORS

80 SERIES



Valve Type	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)
B2	2.23	1.61	0.80	0.75	1.50
B6	2.49				
B8	2.91				
MB2	2.33				
MB4	2.33				
MB6	2.48				
HB4	2.70				
SWB4	2.57	1.25	0.82		
SWB8	2.79				
SWB12	2.95				
SWB16	3.14				

Actuator Model	Breakaway Torque (in. lb.)	AC				DC			
		Cycle Time (sec)	Voltage	Duty Cycle	Amp** Draw (@115 VAC)	Cycle Time (sec)	Voltage	Duty Cycle	Amp** Draw (@12 VDC)
81	150	10	115	75%	0.3	5	12 VDC	100%	1.1
82	300	15	230		0.3	10	OR		1.1
83	600	30	OR		0.3	15	24 VDC†		1.1
84‡	1000	25‡	24 VAC		0.5	15‡			2.6

NOTE: Cycle times reflect 90° rotation. For 180° rotation, double the cycle time.
 **Amps rated at full running torque. Amp draws shown are for 115 VAC and 12VDC only. For other voltages, consult the factory.
 †24 VDC cycle time and amp draw are half of 12 VDC.
 ‡Large 80 Series enclosure must be ordered (consult factory).

Duty Cycle: The percentage of time an electric actuator may operate in relation to the time it must rest. It equals “on time” divided by total elapsed time, multiplied by 100. For example, an actuator with a duty cycle of 25% and a cycle time of five seconds must rest for 15 seconds before operating again.

HOW TO ORDER

Electric Actuators for Field Assembly

The correct part number is easily derived by following the circled number sequence.

Example: 71 - T
 ① ② ③ ④

Describes a Model 71, 2-Way electric actuator unit with a NEMA 4 and 4X rating, a 115 VAC motor with optional heater and thermostat.

① Actuator Model	② Flow Pattern	③ Voltage	④ Options
71 72 73 71R 72R 73R 81 82 83 84	Blank - 2-Way X - 3-Way	Blank - 115 VAC A - 230 VAC B - 24 VAC C - 12 VDC D - 24 VDC	T - Heater and Thermostat S# - Additional Limit Switch; # = number of limit switches required C - Modulating Control Package with position re-transmit (4-20mA, 0-10 VDC includes potentiometer) [‡] F - Position Indicator (70R Series only) CE - European Conformity Marking *CSA - Canadian Standard

NOTE: Mounting bracket kits are required when ordering actuators for field assembly.
 *CSA - Standard on 70 series (optional on 80 series)

Electric Actuators Factory Assembled

The correct part number is easily derived by following the circled number sequence.

Example: 4Z-MB6XPFA-SS - 81 X A -
 ① ② ③ ④ ⑤

Describes a Model 81, 3-Way electric actuator unit with a NEMA 4, 4X, 7 and 9 rating, a 230 VAC motor and no options, mounted on a MB Series ball valve.

① Valve Part Number	② Actuator Model	③ Flow Pattern	④ Voltage	⑤ Options
See the "How to Order" Section for the desired valve series	71 72 81 73 82 71R 83 72R 84 73R	Blank - 2-Way X - 3-Way	Blank - 115 VAC A - 230 VAC B - 24 VAC C - 12 VDC D - 24 VDC	T - Heater and Thermostat S# - Additional Limit Switch; # = number of limit switches required C - Modulating Control Package with position re-transmit (4-20mA, 0-10 VDC includes potentiometer) [‡] F - Position Indicator (70R Series only) CE - European Conformity Marking

NOTE: Parker electrically actuated, B Series Ball Valves should be ordered with elastometric stem packing and seals or the optional live loaded PTFE packing. This reduces the need for any further packing adjustment after receipt from the factory.

[‡] For 80 Series electric actuators only.