

Electromni® Electric Actuators

for ball valves up to 2"

SERIES: EO – Standard
EL – With Lights

VOLTAGES: 12, 24, 115 or 220 VAC, 12 or 24 VDC

ENCLOSURE: High Impact ABS Plastic Cover & PVC Base
NEMA 4X



Electromni® on Compact Ball Valve

The Electromni® Actuator is a high quality yet economical electric actuator for mounting onto all Compact, Type 21 True Union and Type 23 Multi Port ball valves up to 2". The actuator is compact and light weight – well suited for plastic and also metal ball valves.

We normally mount Electromni's to ball valves in-house. The units are assembled, adjusted and bench tested prior to shipment.

Features

Multiple Operation/Control Options

- 3-wire (standard)
- 2-wire (optional)

Multiple Feedback Options

- Visual (integrated lights – optional)
- Feedback Switch (optional)

Approved by CSA¹

(Canadian Standards Association)

NEMA 4X Enclosure

- Waterproof, corrosion proof with high impact ABS cover, PVC base and stainless steel fasteners

No Maintenance

- Permanently lubricated gear train
- Designed for 250,000 + cycles

Thermal Overload Protection

- Thermal switch embedded into motor windings

Extended Operating Temperature Range

- -10 to 60°C (15 to 140°F)

Standard Mounting Dimensions

- ISO-5211 mounting bolt circle

technical

Operating Voltage

- 115 VAC (standard)
- 220 VAC, 12 or 24 VAC or VDC (optional)

Electrical Conduit Entry

- 1 x 1/2" NPT

Motor Direction

- Unidirectional (115/220 VAC)
- Reversing (12/24 VAC/VDC)

Motor Cycle Time

- Fixed (standard)

¹Special inspection labelled.



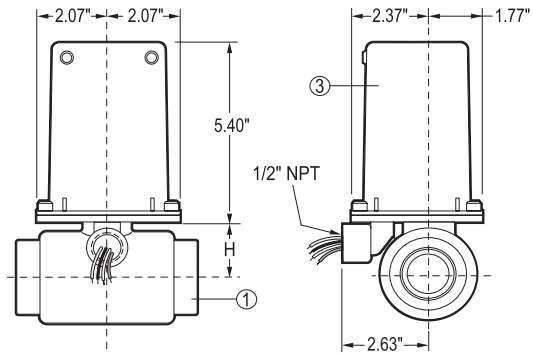
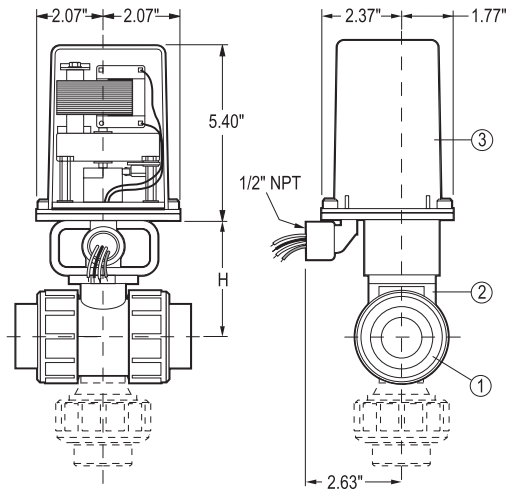
JJ DOWNS INDUSTRIAL PLASTICS INC.

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Electromni® Electric Actuators



Compact Ball Valves
with optional position indication lights

Type 21 True Union and Type 23 Multi Port Ball Valves

MAJOR PARTS

No.	Component	Pcs.	Materials
1	Valve	1	PVC, CPVC PP or PVDF
2	Mounting Bracket ¹	1	PVC or Anodized Aluminum
3	Actuator	1	ABS Cover, PVC Base

¹ Electromni Actuator direct mounts to Compact Ball Valves requiring no mounting bracket or socket screws. For Type 21 TU ball valves and Type 23 Multi Port ball valves, mounting hardware is PPG bracket and 304 SS coupling.

DIMENSION "H" INCHES

Valve Size	Ball Valve Type		
	Type 21	Compact	Type 23
1/2"	2.76	0.8	2.76
3/4"	3.01	0.1	3.01
1"	3.29	1.2	3.29
1-1/4"	3.64	1.4	3.64
1-1/2"	3.98	1.5	3.98
2"	4.43	1.9	4.43

For valve dimensions and parts refer to separate valve data sheets.

SPECIFICATIONS

- **Output Torque** – 120 in-lb.
- **Enclosure** – NEMA Type 4X
- **Weight** – 3.4 lb. (excluding valve)
- **Limit Switches** – Standard unit has 1 SPDT switch rated 5 amps at 120 volts
- **Conduit Entry** – 1 x 1/2" NPT
- **Lubrication** – Not necessary. Gear train is permanently lubricated
- **Ambient Temperature Range** – -10 to 60°C (15 to 140°F)
- **Failure Mode** – In case of power failure actuator stops in last position. If manual override or failsafe functions are required, another actuator series will have to be used.

SPECIFICATIONS

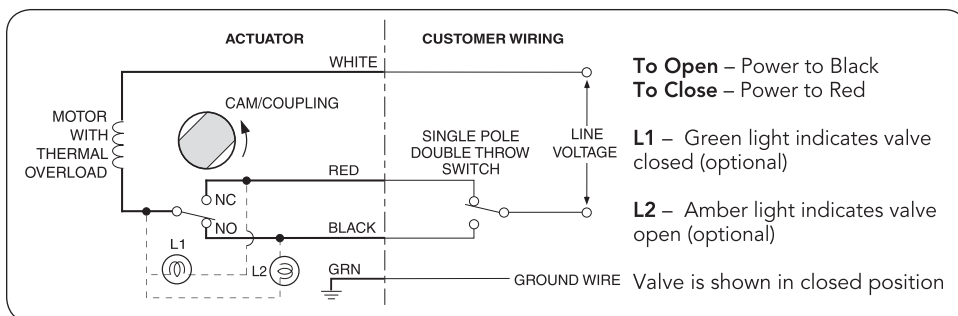
Model Number		Volts	Hz	Speed sec/90°	Duty Motor ⁴	Cycle	Current Draw (amp) ²
no Lights	with Lights ³						
EO1	EL1	120 VAC	60/50	5	Uni	25%	2.2
EO2	EL2	220 VAC	60/50	5	Uni	25%	0.6
EO3	EL3	12 VDC	–	5	Rev	75%	1.0
EO4	EL4	24 VDC	–	5	Rev	75%	1.0
EO5	EL5	12 VAC	60/50	5	Rev	75%	2.25
EO6	EL6	24 VAC	60/50	5	Rev	75%	4.0

² Current draw values are maximum, ie. for locked rotor position. Running current draw will be less.

³ "Lights" are optional Position Indication Lights built into actuator cover.

⁴ Uni = Unidirectional motor; Rev = Reversible motor.

AC WIRING DIAGRAM



OPTIONS

- **Position Indication Lights** – Built into ABS cover. Lights signal when valve is fully open (amber) or closed (green).
- **Extra Limit Switch** – Only one extra SPDT switch is required for both open and closed position feedback. This is for remote indicating lights, the process controller or for sequencing other equipment with the valve actuation⁵.
- **Two-Wire Control or Momentary Contact Actuation** – For retrofitting solenoid or for direct-wiring timers, level switches, etc.

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⁵ Special switching may be required. See **JJD** for details.

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