

ERS Series Electric Actuators

for ball valves up to 2"

SERIES: ERS20 – 180 in.lb.

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

ENCLOSURE: Polyamide 6.6
NEMA 4X



ERS Series on Type 21
True Union Ball Valve

The ERS Series Electric Actuator is a reversible rotary unit with output torques up to 180 in.-lb. These units are ideal for all ball valves up to 2". The ERS Series is compact, light weight and has a plastic housing. A large black handle provides manual override and position indicator.

JJD also offers complete actuated ball, butterfly and diaphragm valves, assembled and bench tested. Actuation service is also available for all quarter-turn metal valves.

Features

Multiple Operation/Control Options

- 2 & 3-wire (standard)
- Adjustable Travel (standard)
- Manual Override (standard)

Multiple Feedback Options

- Visual (standard)
- Feedback Switches (standard)
- Extra Feedback Switches (optional)
- Feedback Potentiometer (optional)
- Feedback Transmitter (optional)

Special Inspection Labelled by CSA

(Canadian Standards Association)

NEMA 4X Enclosure

- Waterproof, corrosion proof with high impact Polyamide 6.6 housing and stainless steel fasteners

No Maintenance

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

Thermal Overload Protection

- Thermal switch embedded onto control board

Standard Mounting Dimensions

- ISO-5211 mounting bolt circle and drive

technical

Operating Voltage

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

Electrical Conduit Entry

- 2 x 1/2" NPT

Motor Direction

- Reversing

Motor Cycle Time

- Fixed (standard)



JJ DOWNS INDUSTRIAL PLASTICS INC.

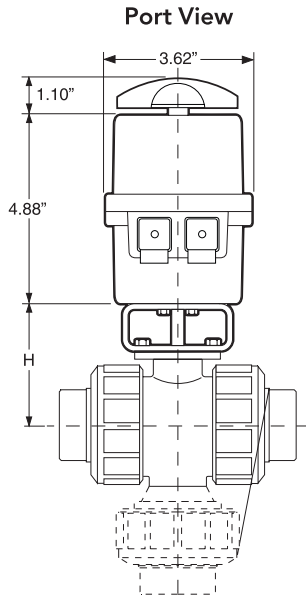
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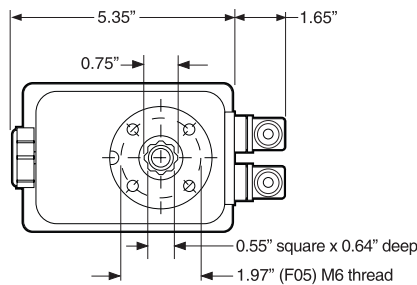
ERS Series Electric Actuators

DIMENSIONS INCHES



Type 21 True Union and
Type 23 Multi Port Ball Valves

Bottom View



DIMENSION "H" INCHES

Valve Size	Valve Type	
	Type 21 Ball/Type 23 Multiport Ball	
1/2	2.76	
3/4	3.01	
1	3.29	
1-1/4	3.64	
1-1/2	3.98	
2	4.43	

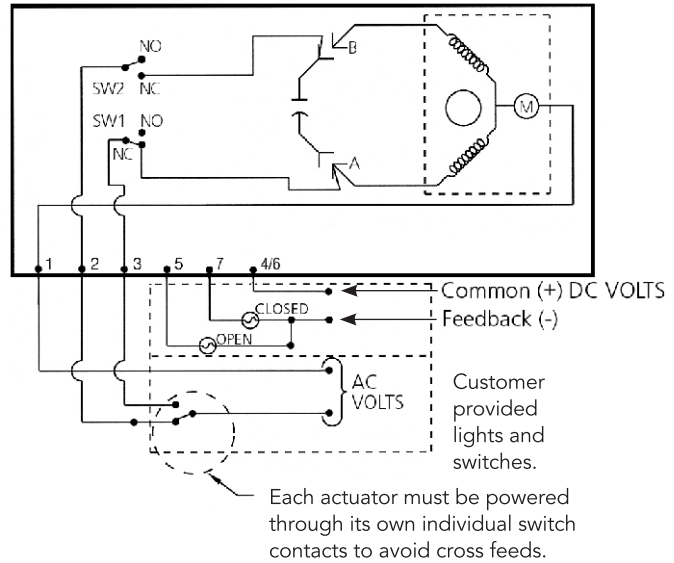
Valves not to scale. For valve dimensions and parts refer to separate valve data sheets.

SPECIFICATIONS

Model	Running Torques		115 VAC / 220 VAC (x=12)		12 to 24 VDC & 24 VAC (x=346)		Cycle Time/90° (sec.)	Weight (lbs.)
	(in.-lbs.)	Nm	Power Draw (Watts) ¹	Duty Cycle	Power Draw (Watts) ¹	Duty Cycle		
ERS20	180	20	15W	50%	15W	50%	12	3.0

¹Power draw values are for actuators with locked rotors.

AC WIRING 115 VAC/220 VAC



NOTES

1. Actuator shown in counter clockwise extreme of travel, or 'open' position.
2. Motor has a thermal protector as shown by (M) in the diagram.

VALVE OPERATION

- Neutral** – To Terminal 1
To Open – Power to Terminal 2
To Close – Power to Terminal 3



FEEDBACK OPTIONS

- **Extra Feedback Switches** – For extra end-of-travel position feedback
- **Feedback Potentiometer** – To feedback the precise valve position to a remote location, or to allow "jogging" control
- **Feedback Transmitter** – A circuit board coupled with a feedback potentiometer provides 4 to 20 mA output used by other equipment (PLC, data logger, etc.)