

Series EIS Electric Actuators

For All Sizes of Ball Valves and Butterfly Valves up to 24"



Application Versatility

Hayward Series EIS electric actuators have been designed to satisfy the requirements of virtually any automated ball or butterfly valve application. Many features have been incorporated into the design of the EIS actuators to ensure their optimal performance in the most demanding of applications. These actuators are a particularly good choice for cost sensitive applications – providing all of the most wanted electric actuator features at a very reasonable cost.

Rugged, Reliable Design Features

Series EIS actuators can be expected to provide years of reliable service. A variety of automated valve applications from many different industries were examined to determine which actuator features were most often specified. These features were then incorporated into the standard EIS actuator design. For example, the EIS features a thermally-bonded polyester-coated housing – not an epoxy-coated housing like that of most other actuators. This housing will stand up to the most aggressive environments. Further, for more accurate stopping and positioning of the valve, all EIS actuators feature a motor brake as standard, not as an extra-cost option. The heavy duty gear drive train is designed to withstand stalled conditions without gear failure. A manual override, position indicator, auxiliary limit contacts and a stainless steel output shaft are among the other standard features.

ELECTRIC ACTUATORS & OPTIONS

Features

- Manual Override
- Position Indicator
- Nema 4 Housing
- Motor Brake
- Permanent Lubrication
- Corrosion-Resistant Housing
- Auxiliary Limit Contacts

Options

- Limit Switches
- Positioners
- Voltages
- Spring Return Failsafe
- Extended Duty Motor
- Heater & Thermostat
- Nema 4X or 7 Housing
- Timer Board
- 180° Center Off
- Cycle Time Regulator
- Control Stations

Options for Unique Applications

For those applications that require them, the Series EIS actuators can be ordered with an extensive array of options to handle the most complex of applications. Whether it is positioners for modulating valve control, extended duty motors, cycle time regulators or failsafe spring return, there is an EIS option available to fit virtually any automated valve application.

Technical Information

Actuator Specifications

Model	EIS2	EIS3	EIS6	EIS10	EIS20	EIS35	EIS120	EIS140
Torque - lbs	200	300	675	1000	2000	3840	11,500	14,040
Housing	Cast Aluminum with Thermally Bonded Polyester Powder Coating							
Conduit Size - inches	1/2				3/4			
Duty Cycle	25%				100%			
Thermal Overload Protection	Standard							
Cycle Time 90° - seconds	5		17		14		68	
Motor Voltage	115 VAC, 60 Hz, 1 Phase, PSC							
Max. Current - amperes	0.75	0.99	0.75	1.1	1.5	2.9	7.1	
Enclosure	Nema 4							
Brake	Mechanical Standard for Butterfly Valves, Friction Standard for Ball Valves							
Manual Override	Standard							
Operation	Reversing							
Weight - lbs	7		13		30		100	

EIS Series Dimensions / Wiring Diagram

EIS2, EIS3
 Dimensions: 4.25" (width), 5.38" (height), 2.43" (offset), 6.88" (total width).
 1/2" NPT Conduit

EIS6, EIS10
 Dimensions: 7.00" (width), 6.74" (height), 2.38" (offset), 7.00" SQ (width), 2.63" (offset).

EIS20, EIS35
 Dimensions: 9.25" (width), 11.63" (height), 3.40" (offset), 3/4" NPT CONDUIT ENTRY.

Wiring Diagram
 Components: AC SUPPLY (POWER) N, HOT, DPDT CONTROL SWITCH, CAPACITOR, PSC MOTOR, OPTIONAL BRAKE, OPTIONAL HEATER & THERMOSTAT, SW #1, SW #2, SW #3, SW #4, GROUND SCREW.
 Terminals: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.

SWITCH LAYOUT
 SW #4 OPEN AUXILIARY
 SW #3 CLOSE AUXILIARY
 SW #2 OPEN LIMIT
 SW #1 CLOSE LIMIT

NOTES:
 1. POWER TO TERMINALS 1 & 2 OPENS THE VALVE (CCW ROTATION)
 2. POWER TO TERMINALS 1 & 3 CLOSSES THE VALVE (CW ROTATION)
 3. TERMINALS 4 THROUGH 9 FOR AUXILIARY SWITCH CONNECTIONS
 4. WIRING DIAGRAM ILLUSTRATES THE ACTUATOR IN THE OPEN POSITION

For EIS120 and EIS140, Consult Factory

Ball Valve Selection Chart*

Valve Size	True Union Ball Valve	Three Way Ball Valve
1/2" to 2"	EIS2	EIS2
2-1/2" to 6"	EIS3	EIS6

* Actuator size selections based on clear water @ 70°F.

Butterfly Valve Selection Chart

Valve Size	Butterfly Valve
1-1/2", 2", 3"	EIS3K
4"	EIS6K
6", 8"	EIS10K
10"	EIS20K
12"	EIS35K
14", 16"	EIS120K
18", 20", 24"	EIS140K



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