

Electric Actuators and Accessories

ELQ - Series



ELQ-MATIC™


EMERSON™
Process Management

Modularity... the key word that can best be used to describe EL-O-MATIC's ELQ Series electric actuators for quarter turn rotary valves

Unique Features with Highly Cost-Effective Installation, Operation, and Upgrade Benefits

Numerous "Plug-In" Options to Simplify Installation and Meet Most In-Field Operating Requirements

Modularity of Design for Maximum Operating Versatility

From on/off applications to full control or use from one valve to another, ELQ Series Electric Actuators provide maximum operating versatility through easily changed "plug-in" modules designed to accommodate varying operating requirements and "splined" drive inserts for direct mounting to a wide range of valves.

Available in five models from 100Nm to 800Nm (885 to 7080 lbf-in), ELQ Series Actuators feature a highly efficient flex-spline gear system for tight positioning control. Standard features include a manual override, mechanical travel stops, dome position indicator, and IP65 / NEMA 4 housings.

A built-in, multi-voltage capability allows use of the ELQ with most common supply voltages such as 24 VDC, 110 VAC, 220 VAC or 380 VAC 3 Phase. Analog, digital, and bus communications facilitate simple integration into any process automation system.

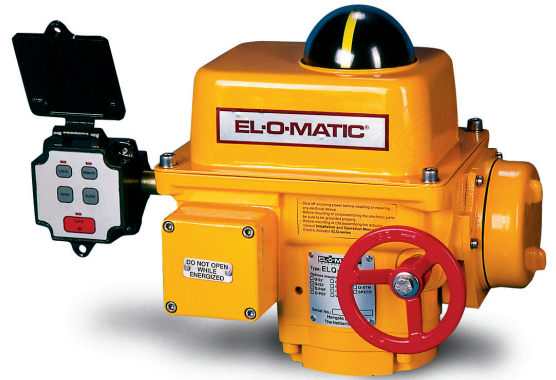
Operation Ideally Suited for On/Off to Numerous Full Control Applications

While ideally suited for on/off and modulating applications, the flexibility offered by the ELQ's numerous operating features and "plug-in" options makes it highly suitable for wide range of control functions.

Depending upon the desired operating features or application, the ELQ's optional modules can be simply plugged into the electronic control board—no tools are required. External control signals are sent to the control board via the actuator's modular terminal compartment.

Terminal compartment

Should the application parameters change, the terminal compartment along with the plug can be quickly removed and plugged into another ELQ—totally eliminating the time and cost associated with hard-wiring the control signals.



Unique Features with Highly Cost-Effective Installation, Operation, and Upgrade Benefits

- 100% duty cycle motor for continuous operation
- Built-in, multi-voltage capability for direct connection to most common supply voltages
- Electronic motor control for precise, highly reliable operation
- "Splined" drive inserts for direct mounting to a wide range of valves
- Easy-to-set mechanical travel stop and limit switches
- Constant engaged manual override for manual valve operation
- Highly visible, domed valve position indicator
- Compact, lightweight durable construction through use of IP65 / NEMA 4 rated aluminium alloy housings

Soft-start principle

The electronic motor utilizes a soft-start principle to avoid high peak loads during starting and ensures smooth running. The actuator has two mechanical stops at 0° and 90° with adjustment bolts that allow adjustment of the setting $\pm 10^\circ$. Factory preset torque is 100% with available torque settings of approximately 50%, 75% or 100% using a jumper.

The limit switch unit is mounted on the control board containing the motor switches and auxiliary limit switches. These switches provide stepless setting with a conical blocking system to prevent drift and are easily set by using slotted screwdriver.

The ELQ's high ratio gearing and very high reduction ratio result in a compact, lightweight actuator with very low noise level and virtually no play. The hand-wheel allows for manual or emergency operation and automatically disengages if the motor is running.

Numerous "Plug-In" Options to Simplify Installation and Meet Most In-Field Operating Requirements

- **Positioner:** Controllable via a 4-20 mA or 0-10 VDC signal
- **Position Transmitter:** Provides continuous position indication through a 4-20 mA signal
- **Speed Control:** To reduce the output shaft speed of the ELQ actuator.
- **Local Control Station:** Allows operation of the actuator locally or from a remote location.
- **Status Information:** Provides feedback information on actuator operating modes including motor status, local/remote indication, and power supply connections.
- **High Power Limit Switches:** For use when switch voltage is higher than 24 V (i.e. 110 or 220 V).

Available Models and Sizing Data

ELQ Series Electric Actuators are available in five models: ELQ100, ELQ200, ELQ300, ELQ500, and ELQ800.

Complete sizing data for all major valve manufacturers is on file and available from EL-O-MATIC's in-house database to ensure proper selection of the right actuator for the right valve.

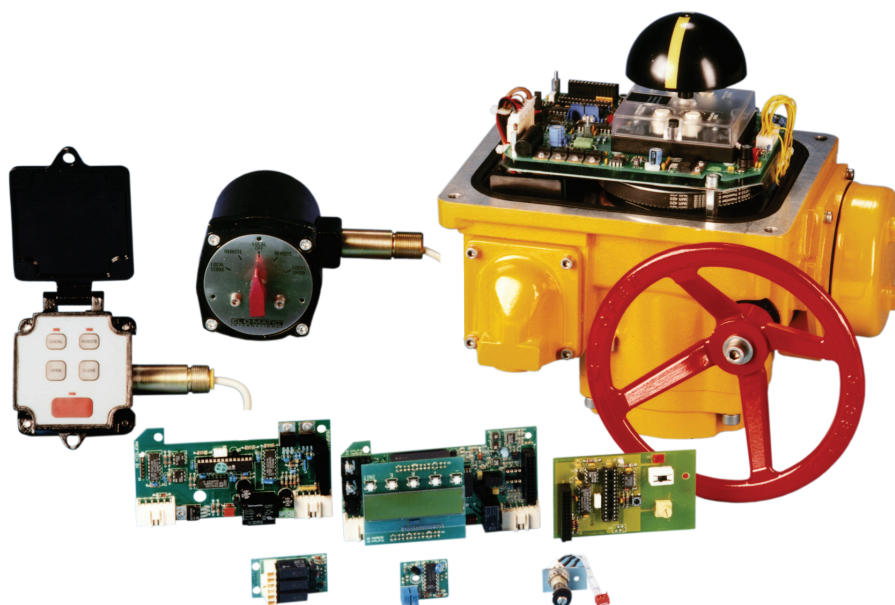
Hazardous area versions

ELQ actuators are available with ATEX Ex d or FM approval (XP, Class I, Div. 1).

- EU ATEX Directive, Flame proof version.
Marking: II 2 G Ex d IIB T4 according EN60079-0 and EN60079-1 for use in Zone 1 and 2.
- FM Explosion Proof version
Marking XP, Class I, Div.1, Groups C/D

Typical Applications

The new ELQ Series has been engineered to bridge the gap between electric actuators and today's challenging process automation applications.



EL-O-MATIC actuators are manufactured to these worldwide standards as follows;

Safety Standards



Product Interface Standards

ISO – 5211

Company Operations Standards

ISO – 9001 Quality Assurance

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