

ELECTRIC ACTUATORS



El-O-Matic Electric Rotary Actuators produce upto 2500 Nm of torque. They are available in three series, namely:

- EL SERIES:
- ELS SERIES:
- ELQ SERIES:

EL SERIES ACTUATORS :

EL actuators use worm and worm-wheel reduction gearing to provide tight positioning control and the self locking feature necessary for controlling larger valves, particularly butterfly types.

The housing is of aluminium castings, it contains the drive motor and worm gear assembly, together with the anti-condensation heater and main terminal strip.

EL actuator takes the full range of control options, it has mechanical end position stops and torque switches. Visual position indication is by a window in the top cover.

A geared manual override is fitted as standard, it is engaged by means of a declutching lever. When the motor is energised the unit automatically returns to motor operation, thus ensuring operator safety.

These actuators are available for ON / OFF and modulating applications.

ELS SERIES ACTUATORS :

A compact, robust range of Electric Actuators.

Especially designed for small two and three way ball valves and similar drives requiring 90° or 180° of rotation from a single phase or DC, electrical supply.

The water tight, aluminium alloy housing with steel cover, contains the drive motor and spur gear box assembly together with anti-condensation heater and main terminal strip. Two limit switches provide for position limiting remote

position indication, space is allowed for two extra switches or a potentiometer for additional position feedback.

ELQ SERIES ACTUATORS :

Series ELQ electric Actuators are powerful, quarter turn units with five sizes covering the torque range from 100Nm to 800Nm. They incorporate High Ratio Drive (HRD) gearing which provides a compact backlash free reduction gear ideally suited for both tight positional control and long trouble free ON / OFF operation. Universal power control allows direct connection to all the usual voltages.

The aluminium alloy housing contains the motor, gear reduction and the Electronic control unit (ECU) - Electronic control enables precise control of the Actuators internal functions and a ready interface to a wide range of control options. Electronic torque control is included as a standard feature. Modular construction is used throughout and allows for a wide range of "kit" and "factory" options.

The manual override handwheel is constantly engaged, it is non-rotating and arranged so that at no time can be back driven by the motor. The handwheel is removable for shipment, also to prevent local operation when this is a requirement. The mounting / drive is to ISO 5211.

ELECTRIC ACTUATOR - TECHNICAL DATA

Actuator Model	Torque (Nm)		Voltage Rating Availability/ Power Consumption (W)								Weight (kg)	
	Break	Run	24VDC		110 V/50hz 120 V/60hz		220-240V/50hz 240-280V/60hz		380-415V/50hz 415-460V/60hz		W-proof	Ex-proof
EL-20	20	7	✓	16	✓	90	✓	80	✗	-	3	-
EL-55	55	20	✓	45	✓	100	✓	72	✓	80/77	6	8
EL-100	100	35	✓	118	✓	225	✓	200	✓	145/180	11	13
EL-150	150	53	✓	118	✓	225	✓	200	✓	145/180	11	13
EL-200	200	70	✓	118	✓	225	✓	200	✓	145/180	16.5	18.5
EL-350	350	123	✓	118	✓	225	✓	200	✓	145/180	17	20
EL-500	500	175	✓	118	✓	225	✓	200	✓	145/180	25.5	28.5
EL-800	800	280	✗	-	✓	315	✓	305	✓	165/200	26.4	30
EL-1200	1200	420	✗	-	✓	535	✓	450	✓	220/266	37	37
EL-1600	1600	560	✗	-	✓	535	✓	450	✓	220/266	37	37
EL-2500	2500	875	✗	-	✓	720	✓	792	✓	560/600	75	75

NOTES:

- Enclosure
 - IP65 as standard IP67, Optional EEx d IIB, T4 to EN 50018, IP67, available for EL-55 To EL-2500 with suffix Exd.
- Stall protection
 - Thermostat for EL-20 & EL-55
 - Thermostat & torque switches EL-100 to EL-2500
 - (4nos.), heater, manual override and local position indicator are available as standard
- Limit Switches
- Duty rating 30% for EL series actuators.
- Rotation $90^{\circ} \pm 10^{\circ}$ as standard and adjustable 10° to 320° by limit switches.

Actuator Model	Torque (Nm)		Voltage Rating Availability/ Power Consumption (W)								Weight (kg)	
	Break	Run	24VDC		110 V/50hz 120 V/60hz		220-240V/50hz 240-280V/60hz		380-415V/50hz 415-460V/60hz		W-proof	Ex-proof
ELS-18	18	14	✓	4.8	✓	45	✓	40	✗	-	2.2	-
ELS-25	25	20	✓	2.4	✓	25		65	✗	-	2.8	-

Actual or Model	Torque (Nm)		Voltage Rating Availability / Power Consumption (W)				Power Consumption (W)	Weight (kg)	
	Break	Run	24VDC	110V/50hz 120V/60hz	220-240V/50hz 240-280V/60hz	380-415V/50hz 415-460V/60hz		W-proof	Ex-proof
ELQ-100	100	100	For ELQ series universal power control allows direct connection to all the usual Voltages				98	13	Optional
ELQ-200	200	200					102	14	
ELQ-300	300	300					96	14.5	
ELQ-500	500	500					130	28	
ELQ-800	800	800					125	30	

NOTES:

- Enclosure - IP67 as standard.
- Stall protection through electronic torque switches - (2 nos.), heater, manual override and position indicator are available as standard for all models.
- Limit Switches
- Duty rating 100% for actuator model ELQ.
- Rotation 90° adjustable from 10° to 100° of stroke.

CONTROL OPTIONS:

(Control options to be confirmed for specific model)

• Extra switches	• Position transmitter
• Potentiometer	• Modulation
• Speed control	• Local control

Enclosure MOC - Cast A1. Alloy 24 VAC & 110 VDC- optional.

✓- AVAILABLE ✕- NOT AVAILABLE
