

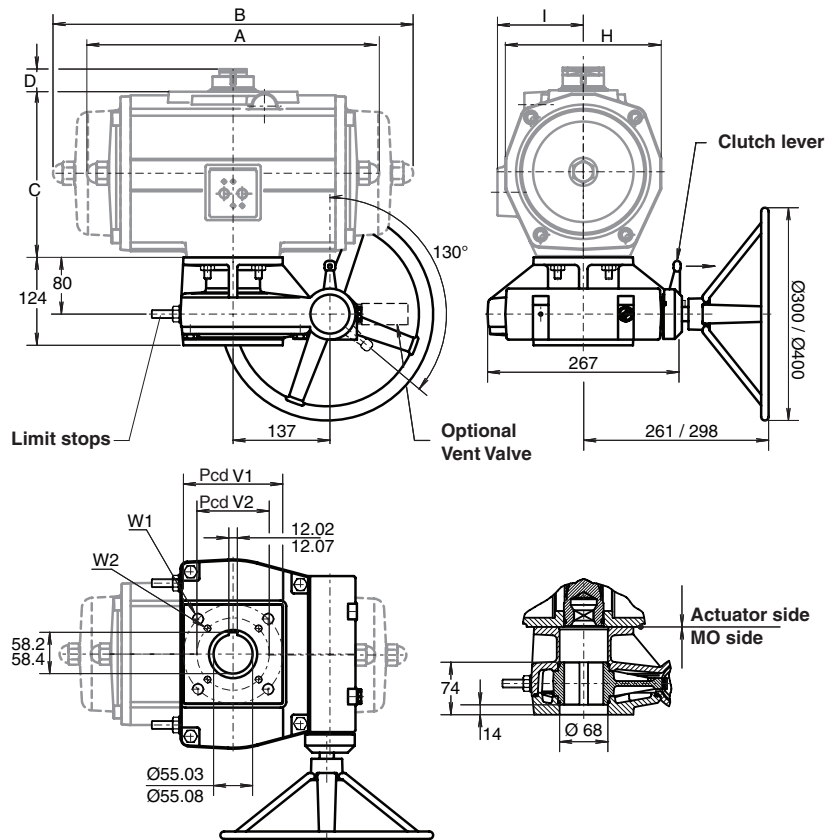
# Data sheet

Sheet No.: 3.402.3 Rev. B

Date: September 2017

## EL-O-MATIC ACTUATOR WITH MANUAL OVERRIDE

MO-160



Dim. in mm.	E350	E600	E950		E350	E600	E950
<b>A (ED)</b>	305	390	440	<b>Pcd V1</b>	140	125	140
<b>B (ES)</b>	387	480	532	<b>Pcd V2</b>	102	-	102
<b>C</b>	181	220	259	<b>W1</b>	M16x15.5	M12x15	M16x15.5
<b>D</b>	20	30	30	<b>W2</b>	M10x13.5	-	M10x13.5
<b>H</b>	173	207	231	<b>Handwheel dia.</b>	300	400	400
<b>I</b>	94.3	113	126				

### Description

The El-O-Matic MO Series declutchable gear operators offer simple and reliable manual positioning of valves, dampers and other quarter-turn devices when overriding, existing pneumatic or hydraulic rotary actuators. All El-O-Matic MO-units are suitable for indoor and outdoor use and combine rugged construction, light weight and modular design to provide the most efficient and cost effective solution to a full range of manual override requirements.

The self-locking worm gear design means safe and easy operation, positive manual positioning and extremely long life.

The El-O-Matic override can be adapted to any quarter-turn actuator and may even be installed in the field on existing valves.

### Operation

To engage manual operation, first pull out the spring loaded clutch lever, then rotate the clutch lever clockwise until engagement takes place. Anticlockwise lever movement disengages manual operation and returns the system to automatic operation.

**Note:** When under manual control, the valve remains locked in the last set position.

### Stroke adjustment

The MO gearbox is equipped with two stroke adjustment bolts. These must be set for accurate valve positioning and to avoid damage to the actuator or valve spindle during manual operation. The limit stops on actuators are redundant in combination with MO-gearboxes. For stroke angle less than 80° please consult our engineering department.

### Identification

For basic override : MO-160 and indication of actuator size, e.g. : MO-160 for E350

For complete assemblies : E600+MO-160

### Assembly codes

A - Standard

B - Reversed operation: handwheel on the other side (factory option)

### Specification

Body	: Cast aluminium	Movement	: 0° - 90°
Gear quadrant	: Aluminium bronze	Finish	: Two part polyurethane coating
Worm shaft	: High grade aluminium / hard anodized	Weight	: 10.2 kg
Temperature	: -20°C to +80°C	Fasteners	: Stainless steel
Stroke adjustment	: +5° and -5° at each end		

### Input / Output

At rim	No. of turns	: 20
	Max. input force	: 400 N
At output shaft	Max. output torque	: 1600 Nm

### Optional

Electric position indication and vent valves (see data sheet 3.403)

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