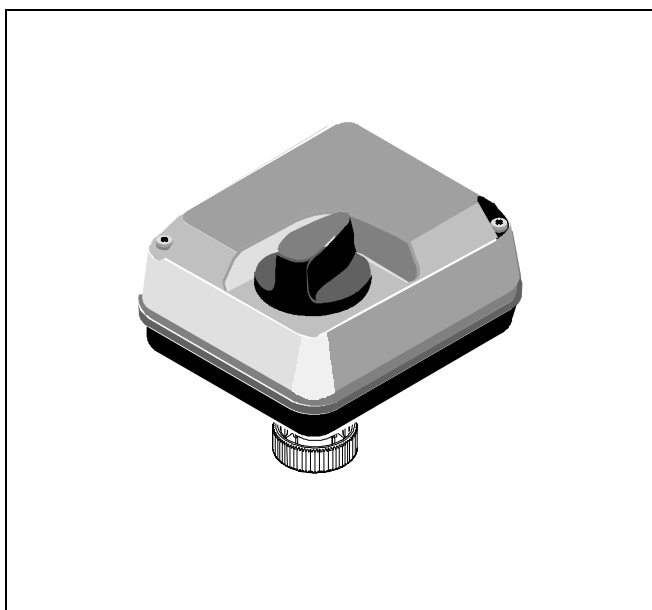


ML7430E/ML7435E

Electric Linear Actuators for Modulating Control

SPECIFICATION DATA



FEATURES

- 0...10 Vdc / 2...10 Vdc signal input
- Fast run time
- Low power consumption
- Easy and quick installation
- No separate linkage required
- No calibration
- Force limiting end switches
- Spring return (ML7435E)
- Manual operator
- Synchronous motor
- Direct / reverse action adjustable
- Maintenance free

SPECIFICATIONS

Temperature Limits

Ambient operating limits	0... +50 °C @ 5 to 95% rh
Ambient storage limits	-40... +70 °C @ 5 to 95% rh
Medium valve temperature	max. +130 °C

Signals

Input voltage range	Y = 0...10 Vdc or 2...10 Vdc
Input resistor	R _i = 100 kΩ
Signal source output resistor	max. 1 kΩ

Safety

Protection standard	IP54 in acc. with EN60529
Protection class	II in acc. with EN60730-1
Flame retardant	V0 in acc. with UL94 (optional with metal cable gland)

Wiring

Wiring terminals	1.5 mm ²
Cable entry	PG13.5 and cutout ring

Weight

0.37 kg / 0.5 kg

Dimensions

see Fig. 2

Material

Cover	ABS-FR
Base	glass fibre reinforced plastic

GENERAL

The actuators ML7430E/ML7435E are designed to provide modulating control together with the small linear valves V5832B/V5833A (DN25...DN40) and V5872B/V5872D for high differential pressure.

These valve-actuator combinations are suitable especially for integration into compact or conventional stations for direct or indirect district heating connections, air handling units and roof top units for zone control and domestic hot water applications.

The actuators are microprocessor controlled for exact positioning. The direction of movement is reversible.

The valve-actuator combination V5872/ML7435E provides safety close-off function and is approved according to DIN32730.

OS-Number	ML7430E1005	ML7435E1004
Supply Voltage	24 Vac -15/+20% 50/60 Hz	
Power Consumption	5 VA	10 VA
Signal Input 0(2) Vdc *	Actuator stem retracts	
Signal Input 10 Vdc *	Actuator stem extends	
Nominal Stroke	6.5 mm	
Run Time @ 50 Hz	15 s	60 s
Nominal Stem Force	≥400 N	
Spring Return Time	-	≈15 s
Spring Return Direction	-	Actuator stem retracts at power failure

* = Factory setting

OPERATION

General

The drive of a synchronous motor is converted into linear motion of the actuator stem by using a spur gear transmission. Actuator and valve are directly connected by a nut.

An integrated mechanism limits the stem force. Installed microswitches switch off the actuator precisely when the specified stem force is reached.

Manual Operation for ML7430E

The actuators are equipped with a manual operator. Manual operation is only possible after the power supply is switched off or disconnected. It has to be used only to check the valve operation. To operate turn the manual operator knob clockwise to move the stem downward and counter-clockwise to move the stem upward.

Manual Operation for ML7435E

The actuators are equipped with a manual operator (for 8mm Hex Key). Manual operation is only possible after the power supply is switched off or disconnected. It disables the actuators safety function and has to be used only to check the valve operation.

The manual operator is located under the cover.

Electrical Installation

NOTE: To avoid the voltage drop influence of the cabling it is recommended, to wire control signal Y and 24V⊥ separately from power supply wiring.

Input Signal Range

The range of the analog input signal Y (0 to 10 Vdc or 2 to 10 Vdc) can be selected by changing the position of jumper plug W2 (see Fig. 1). The factory set is at 0 to 10 Vdc.

Direction of Action

The direction of action (direct or reverse) can be selected by changing the position of jumper plug W1 (see Fig. 1). It is set by the factory such that the stem extends at increasing signal and retracts at decreasing signal (direct action).

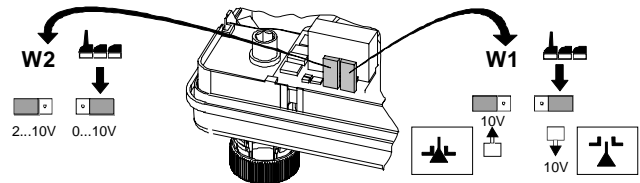


Fig. 1 Jumper plugs W1 and W2

NOTE: Jumper plugs W1 and W2 are accessible after the cover has been removed (see Fig. 1).

Y-Signal Override

To override the Y-signal and force the actuator in 0% or 100% stroke position, inputs 1 and 2 (see Fig. 3) has to be connected as follows:

- 0% stroke position (stem fully retracted):
24V⊥ applied to input Y
- 100% stroke position (stem fully extended):
24V~ applied to input Y
or vice versa if reverse action is selected

Y-Signal break

In case of wire break at Y-signal input, the actuator is moved into the 0V signal position (safety position).

Suitable Valves

	DN15	DN25	DN32	DN40	Order No.
Close-Off Pressure in kPa	1600	1600	-	-	V5872B
	1600	1600	-	-	V5872D
	-	120	60	30	V5832B
	-	120	60	30	V5833A

Spare Parts

Actuator	Spare Parts	
	Name	Order No.
ML7430E1005	Motor Assy	43196492-001
	Circuit Board	43196493-001
	Cover Assy	43196491-001
ML7435E1004	Motor Assy	43196492-001
	Circuit Board	43196493-002
	Cover Assy	43196490-001

APPROVALS

NOTE: Actuator ML7435E1004 in combination with the following valves is approved according to DIN 32730:

Valve OS-No.	DIN Registration No.
V5872B	in preparation
V5872D	in preparation

DIMENSIONS

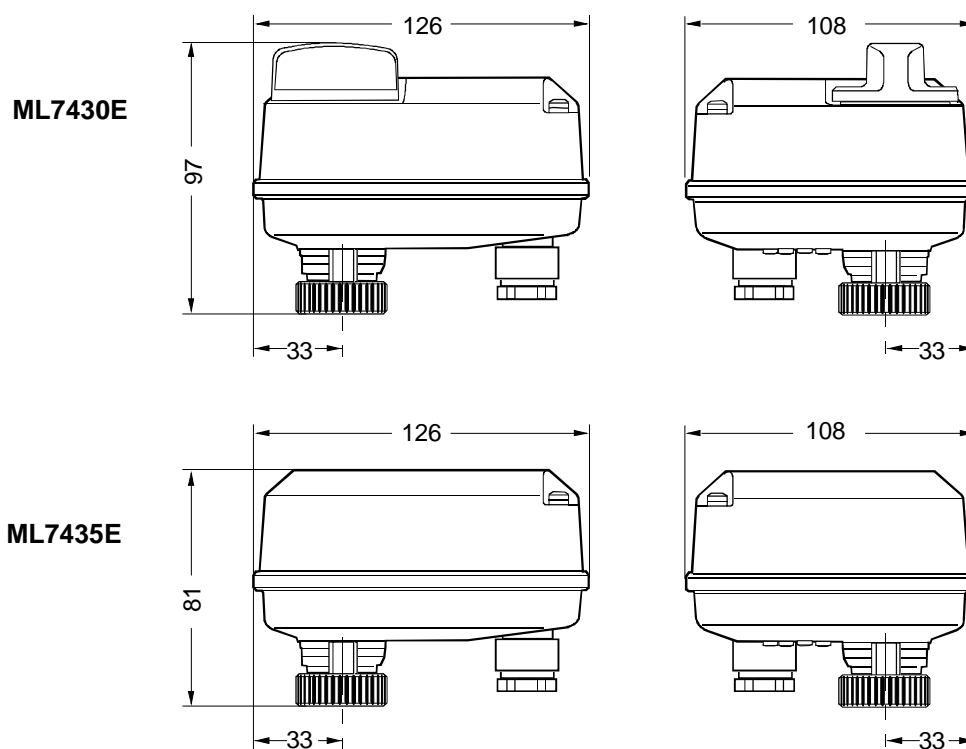


Fig. 2 Dimensions in mm

WIRING

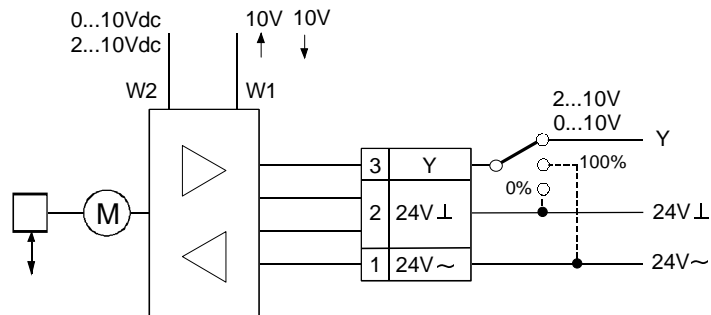


Fig. 3 Wiring

Honeywell

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Manufacturing location is certified according to **DIN**
EN ISO 9001