



The Oventrop Quality Management System is certified to DIN-EN-ISO 9001

Tender specification:

Oventrop electromotive actuator for a steady control. Available as three point or proportional actuator (0-10 V) with connection thread M 30 x 1.5. The jumper of the model with 0-10 V-drive allows the adjustment of the input signal, of the mode of operation and of an anti-blocking function opening and closing the valve completely every 24 hours. Moreover this model possesses an automatic recognition of neutral point.

Item no.	Models
101 27 00	24 V, proportional actuator (0-10 V), adjustable input signal, mode of operation and anti-blocking function
101 27 01	24 V, three point actuator, without anti-blocking function

Performance data:

Operating current:	24 V AC \pm 15%
Power consumption:	2 W active power, 2.7 VA apparent power
Drive:	Item no. 101 27 00 0-10 V DC, 0-5 V DC or 5-10 V DC adjustable input impedance : 80 k Ω Item no. 101 27 01 reversible for three point control

Max. piston stroke:	5 mm
Operating power:	> 90 N
Floating time:	about 15 s/mm
Protection:	IP 40 according to EN 60529
Max. fluid temperature:	+95 °C
Ambient temperature:	0°C up to +50°C, not condensing
Storage temperature:	-20°C up to +65°C, not condensing
Connecting cable:	Item no. 101 27 00 4-core cable, 1.5 m long Item no. 101 27 01 3-core cable, 1.5 m long

Installation and fitting:

The connecting cable must not come into contact with the hot radiator or pipe as excessive heat will accelerate the ageing of the cable insulation.

Electrical connections must be carried out in accordance with the requirements of the local Electricity Board.

Oventrop electromotive actuators can be installed in any position, except for vertical downward position.

Application:

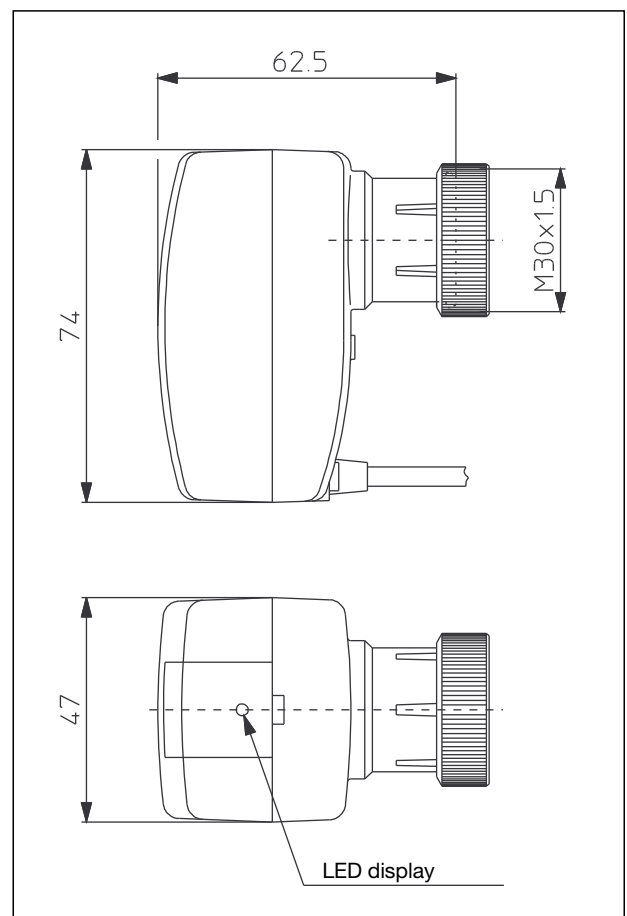
Oventrop electromotive actuators are used for heating, ventilation and air conditioning. The actuators can be used for room temperature control, e.g. with conventional radiators, radiators with integrated distributor, with distributors/collectors for surface heating systems, radiant ceiling panels, chilled ceiling systems and induction air systems.

The actuators can be combined with the following Oventrop valves with connection thread M 30 x 1.5:

- Thermostatic radiator valves, all series (except for "Series ADV 6")
- Valves "Series PTB" with linear flow characteristic line
- Three-way conversion valves
- Distributors/collectors for surface heating systems (please observe ambient temperature within the cabinet)
- Regulating valves "Cocon" for chilled ceilings systems
- Three-way diverting and mixing valves
- Regulating valves "Hycococon ETZ/HTZ"



Dimensions:



Function:

When used in conjunction with the Oventrop thermostatic radiator valves and the Oventrop electronic room thermostat with proportional outlet, item no. 115 21 51 (can only be used in conjunction with the actuator item no. 101 27 00) or the Oventrop electronic room thermostat Heating/Cooling, item no. 115 22 51 (can only be used in conjunction with the actuator item no. 101 27 01), the Oventrop electromotive actuators with steady control allow an individual room temperature control with high precision. When installing the pipework correspondingly, several radiators (zones) may be controlled with one valve only.

The actuators are silent in operation and have a low power consumption.

With the actuator (only item no. 101 27 01) being in the upper or lower final position with a constant voltage, the actuator is switched off after about 80 seconds.

With a constant maximum or minimum input signal (item no. 101 27 00) or with an uninterrupted voltage in the same piston stroke direction (item no. 101 27 01), the actuator is switched on every 2 hours for at least 2 minutes, so that this position is maintained.

The anti-blocking function (only item no. 101 27 00) will avoid sticking of the valve stem. To do so, the actuator opens and closes completely once every 24 hours and returns to the set position.

The actuator item no. 101 27 00 has an automatic recognition of neutral point. Each time the operating current is switched on, the actuator closes the valve completely and returns to the position set at the room thermostat.

For a reversed mode of operation, the jumper on position "6" just has to be moved to position "5".

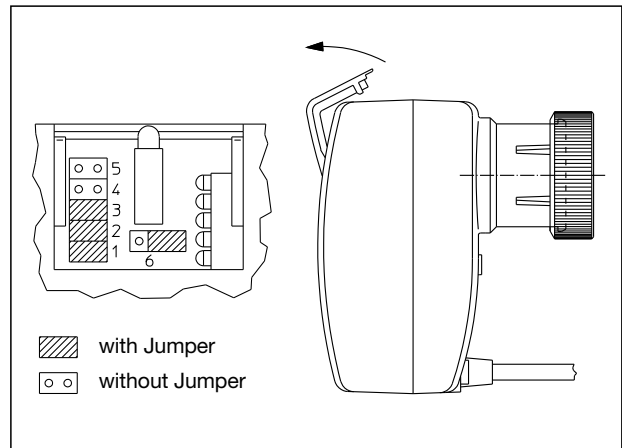
Mode of operation	Control signal	Stem	
		Actuator	Valve
direct	falling (10 → 0 V)	opens up	closes
	rising (0 → 10 V)	closes down	opens
reversed	falling (10 → 0 V)	closes down	opens
	rising (0 → 10 V)	opens up	closes

LED display:

- ☉ On Power supply available, actuator not in operation
- ⦿ Single blinking Actuator in operation
- ⦿⦿ Double blinking Confirmation of final position or anti-blocking function
- Off No power supply

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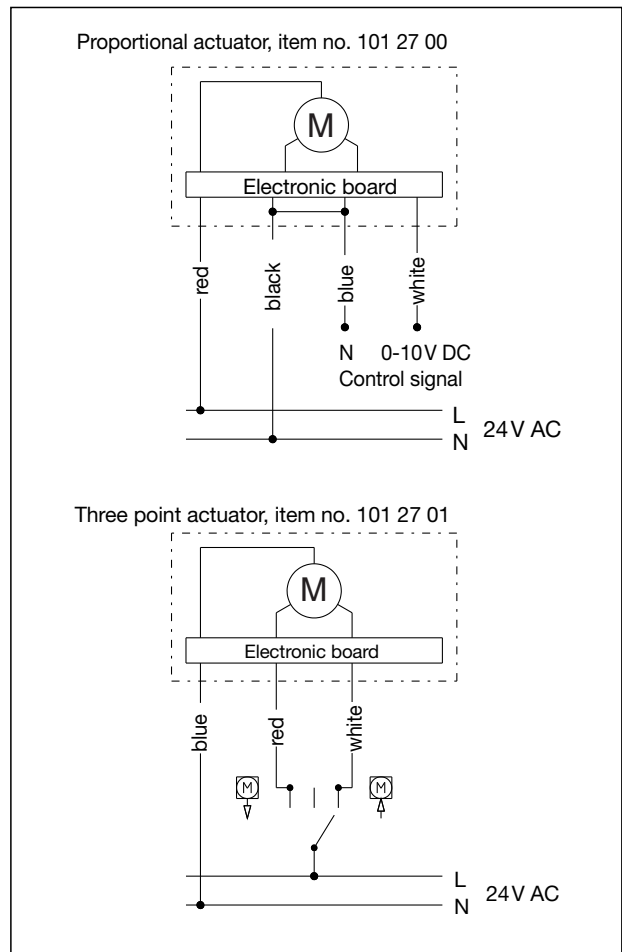
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Cover and position of jumper (only item no. 101 27 00)

Function	Jumper	Factory-setting	Further settings
Anti-blocking function	1	▨ On	○● Off
Inputsignal	2	▨ 0-10V	▨ 5-10V ○● 0-5V
	3	▨	○● ○●
Mode of operation	5	○● direct	▨ reversed

Different settings (Jumper)



Wiring diagrams

Subject to technical modification without notice.