

Tender specification:

Oventrop electrothermal actuator as two point actuator, with “First-Open” function and stroke index, closed with current “off”. The actuator can be installed in any position. Simple plug-in connection to valve adapter.

Model 120 V:

Connection thread M 30 x 1.5
“M NC” closed with current “off”

Item no.:

1012420

Technical data:

| | |
|-----------------------|--|
| Operating current: | 120 V AC, ± 15 %, 50/60 Hz |
| Start up load: | < 450 mA for a max. of 100 ms |
| Continuous current: | 8.5 mA |
| Closing/opening time: | about 5 min. |
| Piston stroke: | 5 mm |
| Operating power: | > 90 N |
| Protection: | IP 54 in any position |
| Protective system: | II according to EN 60730 |
| Fluid temperature: | 0... + 100 °C |
| Ambient temperature: | 0... + 60 °C |
| Storage temperature: | -25... +60 °C |
| Connecting cable: | 2 x AWG 18, 1 m long |
| Approval: | NRTL approval according to UL specification. May only be installed in approved countries outside the EU. |

Installation and fitting:

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

It is recommended to fuse the electric circuit. The connecting cable must not come into contact with hot pipes or similar as excessive heat will accelerate the ageing of the cable insulation.

When choosing the switching contacts or network fuses, the start up load of the heating element has to be taken into consideration. The loss of potential must not exceed 15 % so that the indicated operating time is kept.

Max. length of cable for 1 actuator, with given wire cross sections (indication with a voltage drop of about 5 %, with 120 V voltage drop 6 V).

| Wire cross section [mm ²] | 120 V max. length [m] |
|---------------------------------------|-----------------------|
| 2 x 0,75 | 671 |
| 2 x 1,00 | 894 |
| 2 x 1,50 | 1340 |
| 2 x 2,50 | 2334 |

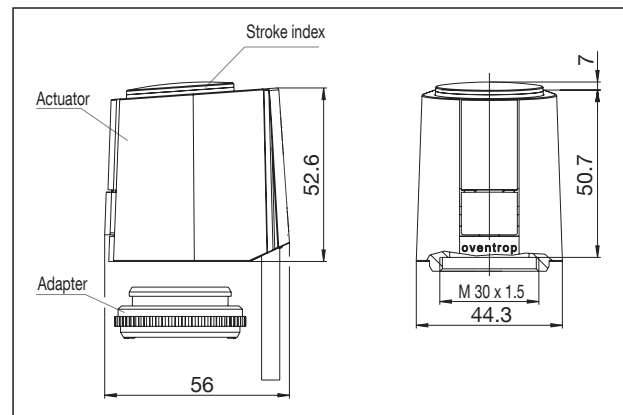
When installing several actuators, the indicated length of cable must be divided by the number of connected actuators.

The actuator is mounted with the help of the valve adapter, no tools are required. The valve adapter is manually screwed onto the valve and the actuator is fixed to the adapter by use of the plug-in connection.

Oventrop electrothermal actuators can be installed in any position but a vertical (stroke index pointing upwards) or horizontal installation is preferable. In case of vertical downward installation, special circumstances (e.g. dirt water) may reduce the service life.



“Aktor T 2P”



Dimensions of actuator

Application:

The Oventrop electrothermal actuator with two point control is used for heating, ventilation and air-conditioning. In combination with the Oventrop thermostatic radiator valves or distributors/collectors for surface heating systems and the Oventrop room thermostats, the actuator allows for an individual room temperature control. The actuator is activated through controls with two point output or pulse-width modulation and can be combined with the following Oventrop valves with connection thread M 30 x 1.5:

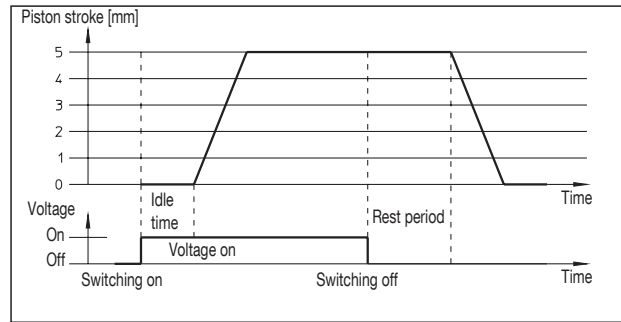
- All thermostatic radiator valves (except for valves “ADV 9/ADV 6” and “KTB” with actuators closed with current “off”)
- Three-way conversion valves
- Distributors/collector for surface heating systems (please observe ambient temperature within the cabinet)
- Regulating valves “Cocon 2TZ”
- Pressure independent control valves “Cocon QTZ”
- Regulating valves “Hycoccon ETZ/HTZ”
- Three-way diverting and mixing valves

Function:

The Oventrop actuator works with an expansion type working element which is heated electrically by a PTC heating element. A silent operation and low power consumption are thus guaranteed. The valve is opened constantly by the lift of the push rod each time the operating current is switched on - after termination of the idle time (stroke index in extended position). By switching off the operating current and after termination of the rest period, the valve is closed constantly by the closing pressure of the pressure spring (stroke index in retracted position). Due to the First-Open function, the actuator is supplied open with current “off”. This allows for the operation of the heating system during construction work even if the electric wiring of the individual room temperature control has not yet been terminated. During commissioning, the First-Open function is released automatically by switching the operating current on (more than 6 min.) and the actuator is ready for operation.

If the Oventrop actuator is used for room temperature control, it is recommended to carry out the room temperature setback via the room thermostat.

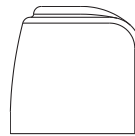
If for some reason a setback of the flow temperature is required during night hours or at other times, a setback of the room temperature via the room thermostat should be carried out additionally.



Characteristic line, closed with current “off”

Accessories:

| | Item no.: |
|---|------------------|
| Valve adapter, connection thread M 30 x 1.0 | 1012890 |
| Reinforcing cap | 1012450 |
| Valve adapter, high model (+ 11 mm), connection thread M 30 x 1.5 | 1012462 |



Reinforcing cap
to protect the electrothermal actuators against vandalism.

Subject to technical modifications without notice.

Product range 1
ti 231-EN/10/MW
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