

Job Name: _____

Submitted by: _____

Date: _____

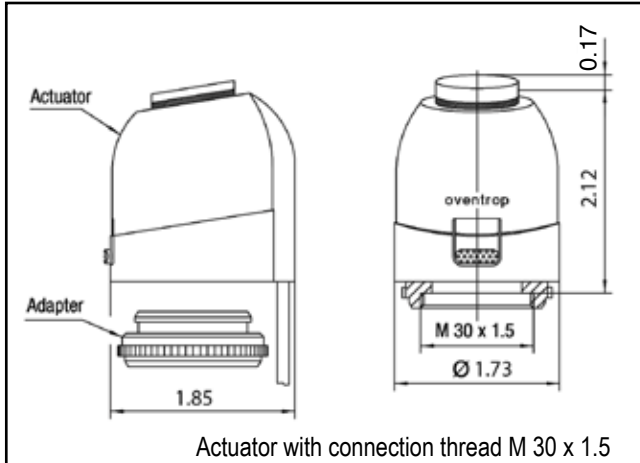
Spec Section: _____

Job Location: _____

Engineer/Architect: _____

Approval: _____

Date: _____



Dimensions in inches



Specifications

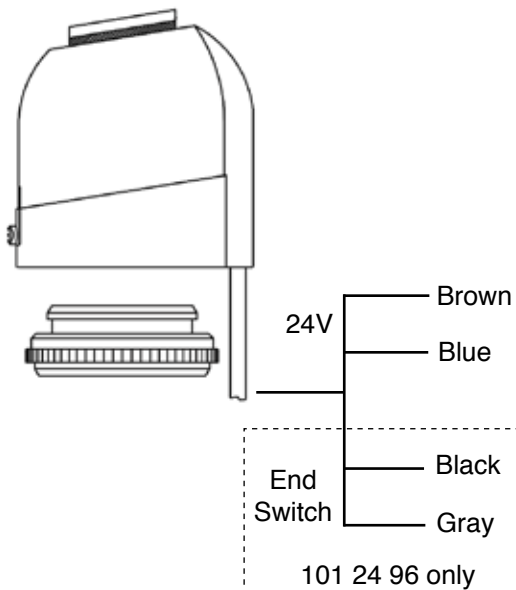
The Oventrop actuators operate with an expansion type low-power element which is electrically heated for silent operation. Available as 2- and 4-wire models “normally closed,” and 2-wire model “normally open.” The actuator can be installed in any position. No tools are necessary for installing the actuator. The normally closed actuators contain a “first-open” function and are supplied from the factory open with current “off.” This allows the operation of the heating system during construction work even if the wiring to the actuator has not been installed. During initial operation, the “first-open” function is released automatically by switching the operating current on for more than 6 minutes. Once the “first-open” function has been completed, the valve will be closed with the current off.

Actuator connection thread: M 30 x 1.5

Operating current:	24V AC/DC
Start up load:	250 mA [6 W] for a maximum of 2 min.
Current:	75 mA
Maximum end switch current:	24V AC 5A 24V DC 3A
Closing/opening time:	about 3 min.
Piston stroke:	4.5 mm (0.17 in.)
Operating power:	> 90 N (20.2 lbs.)
Fluid temperature:	32 °F - 212 °F
Max. Steam Pressure:	14 Psi
Ambient temperature:	32 °F - 140 °F
Connecting cable:	18 AWG / 3 ft.

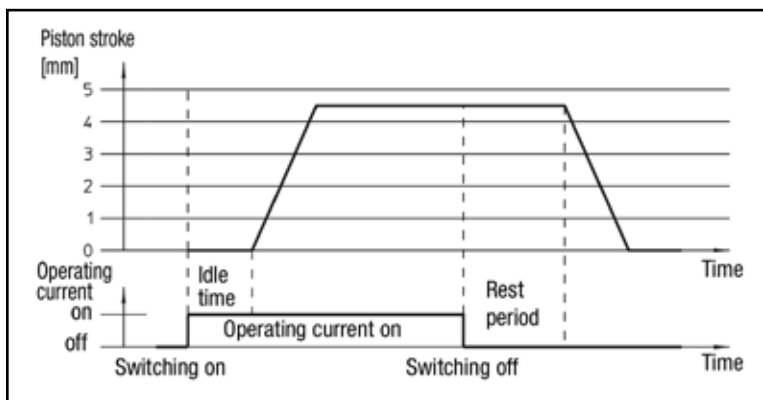
Models:

Closed with current “off” / 4-wire with auxilliary end switch	101 24 96
Closed with current “off” / 2-wire	101 28 16
Open with current “off” / 2-wire	101 28 26

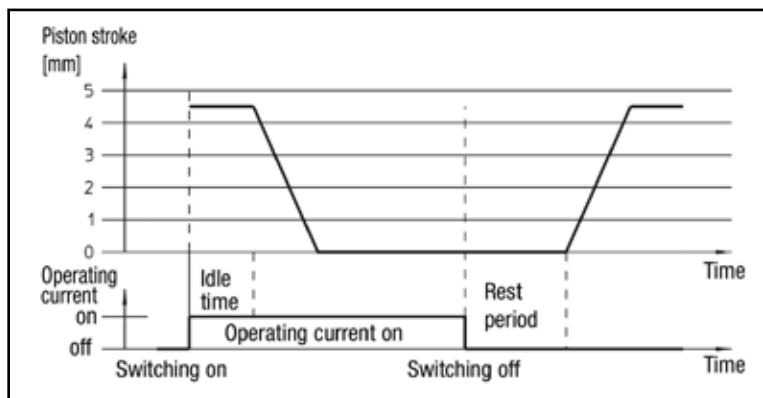


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Wire Cross Section AWG	24V Wiring Maximum Length [Feet]
2 x 18 AWG	550
2 x 16 AWG	1100
2 x 14 AWG	1800



Characteristic line, closed with current “off”



Characteristic line, open with current “off”

Max. length of cable for 1 actuator, with given wire cross sections (indication with a voltage drop of about 5%, for 24 V voltage drop about 1 V).

When installing several actuators, the indicated length of cable must be divided by the number of connected actuators. A class II FCC safety transformer must always be used with the 24V actuators.

Selection of the transformer is determined by the start up power of the actuators.

Rule-of-thumb: $P_{\text{Transformer}} [\text{W}] = 6 [\text{W}] \times n$
n = Number of 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 attached to the adapter by use of the snap-on connection.

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

Installation and fitting

Electrical connection must be carried out in accordance with the requirements of all applicable codes. It is recommended that the circuit be protected from excessive current. Connecting cables must be installed away from hot pipework as excessive heat will accelerate the ageing of the cable insulation. When choosing other electrical components, the start up load must be taken into consideration. The voltage loss must not exceed 10% so that the indicated operating time is kept.