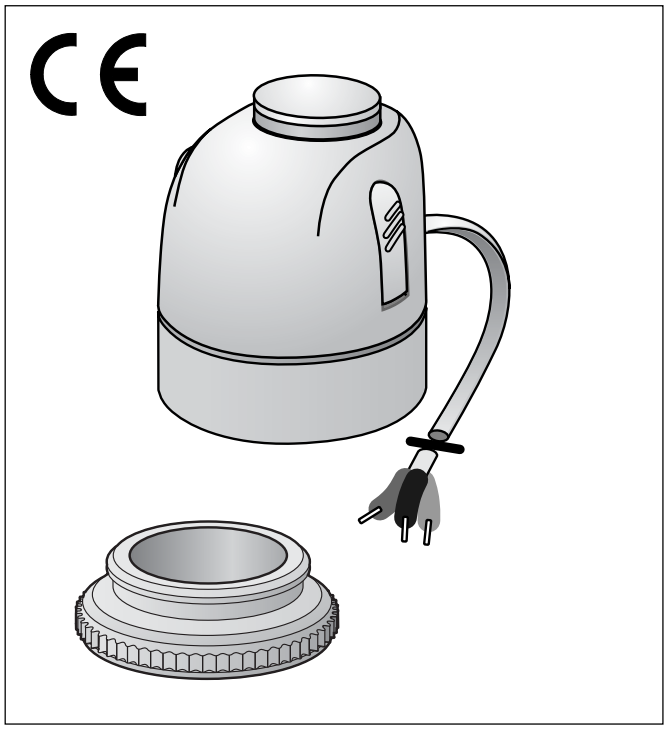
Honeywell

MT010

SMALL LINEAR THERMOELECTRIC ACTUATOR

PRODUCT DATA



Application

MT010 small linear actuators are used with Honeywell room-temperature controllers for time-controlled modulating regulation of heating and cooling systems. A microprocessor based positioner guarantees accurate control. The MT010 is designed for applications where space is limited. Suitable valves are the 2-way V5822 and V5832 series of small linear valves with 2.5 mm stroke as well as the Honeywell TRV series with 2.5 – 3 mm stroke.

Features

- **Small size allows limited space installation**
- **Reliable longtime operation**
- **No mounting tools required**
- **Noiseless operation**
- **Ready-to-wire connection cable**
- **Visual valve position indicator furnished with actuator**
- **M30 x 1,5 connection (other connections available on request)**
- **Fits on specified Honeywell and Heimeier thermostatic radiator and zone valves and valve inserts for manifolds and compact radiators**

Specifications

Avg. runtime	30 s/mm
Maximum stroke	3,5 mm
Stem force	90 N
Ambient temperature	max. 50°C
Power supply	24V ≅ ; 50/60 Hz –10 % +20 %
Control signal	modulating 0...10V DC
Input resistance	100 kΩ
Initial current	250 mA
Permanent current	63 mA
Power Consumption	1,5 W
Protection standard	IP40
Cable length	1 m
Cable wires	3 x 0,22 mm^2 PVC
Suitable valves	2-way V5822/32 with 2.5mm stroke TRV´s with 2.5-3mm stroke

NOTE: Opening and closing times depend on ambient temperature.

Dimensions

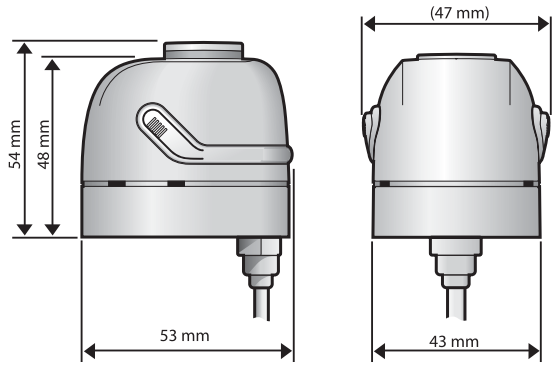
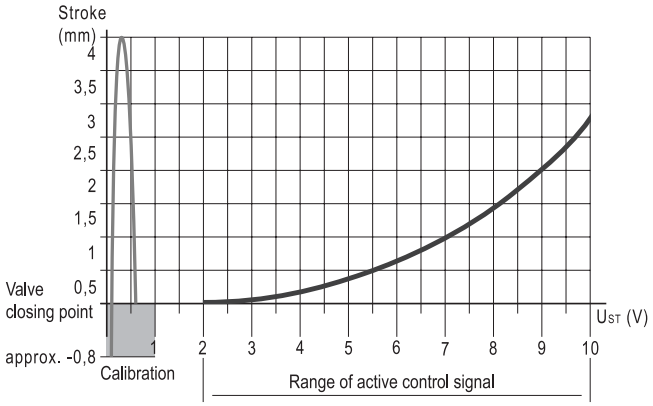


Fig. 1. Dimensions

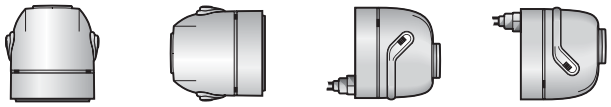
Characteristic



Ordering information

Order number	Power supply	Control signal	Actuator action
MT010	24V	0...10V DC	At 0V and power loss actuator extends (2-way valve closes)

Installation positions

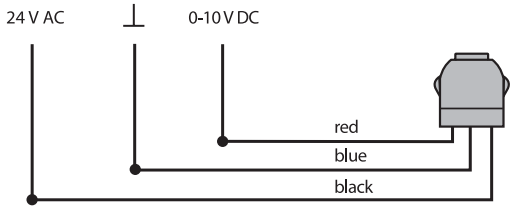


NOTE: Connection leads must not touch the piping (heat transfer)

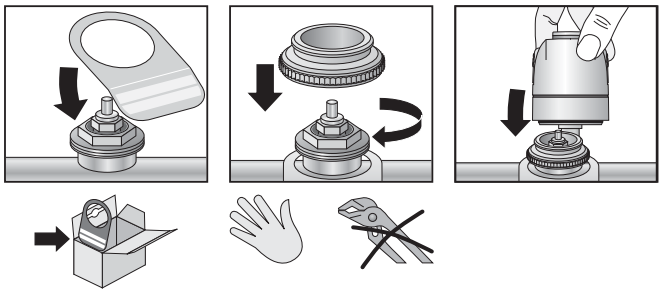
Only a safety-isolating transformer in accordance with EN 60335 may be used. The rated capacity of the transformer is based on the initial current of the actuators.

Rule of thumb: P_{Trafo} = n x 6 W (n = number of drives)

Wiring diagram

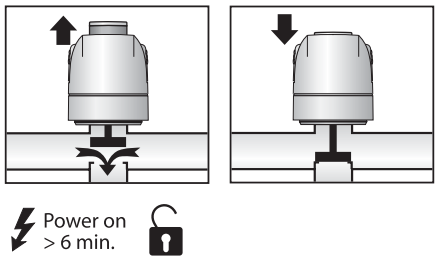


Assembly



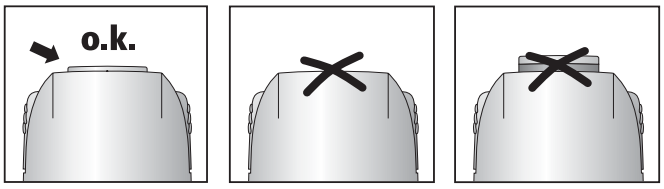
Screw the valve adapter onto the existing valve; hand-tighten. Plug the actuator into the valve adapter until it clicks into place.

"First open"-function



A calibration process is carried out to optimally adjust the actuator to the existing valve **each time** the operating voltage is applied. During this process, the actuator completely opens and closes the valve. Prominent points are stored in the process. The control signal is ignored during this time. After the calibration process the actuator is ready for use and converts the applied control signal into a proportional stroke.

Adaption check



After the calibration process (drive is stopped), and if no control signal is applied, you can check whether the correct valve adapter is mounted. The stroke cap must be slightly elevated and you should not see any of the white area.

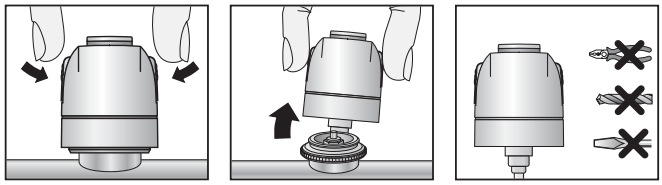
Auto calibration

The closing point (drive closed) is checked twice daily in active status (U_{ST} > 2V). If there is deviation, then the calibration process is executed again.

Hash (disturb signals)

The actuator only reacts to a control signal > 2V in order to ignore interference voltage and hum voltage.

Disassembly



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