

EMO T

**Thermal actuator
for heating, ventilation, and
air conditioning systems**



To be precise.



EMO T

Description



The EMO T thermal actuator is a VDE-tested two-point actuator for connecting to room temperature controllers with a two point output, e.g. HEIMEIER roomthermostats or Thermostat P.

Models with 230 V (with built-in overvoltage protection 4 kV) and 24 V operating voltage, each currentless closed (NC) or opened (NO), enable a versatile application in heating, ventilation, and air conditioning systems.

EMO T has an electrically heated expansion system which is secured against overtravel.

The pressure power within the closed range is adapted for thermostatic valve

bodies with soft valve discs.

It is maintenance-free and functions without noise.

Depending on the model, in a currentless status, EMO T holds the valve closed (NC model) or open (NO model).

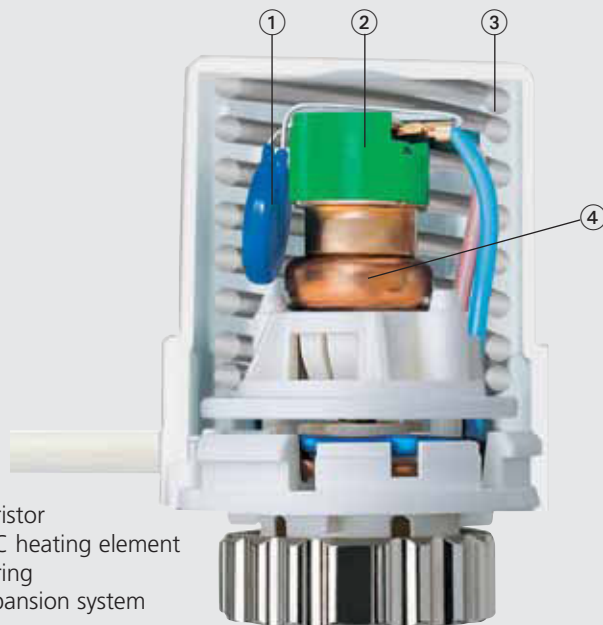
The attractively designed body of the EMO T is constructed of a white (RAL 9016), heat-resistant, shock-proof plastic.

The EMO T is designed to be installed on all HEIMEIER thermostatic valve bodies and three-way valves.

Its compactness also makes it suited to installations in manifolds cabinets.

Assembly

EMO T 230 V model (NC)



- ① Varistor
- ② PTC heating element
- ③ Spring
- ④ Expansion system

- **Wide range of uses due to versatility of available models**
- **Functional dimensions**
- **Built-in overvoltage protection guarantees security of operation (with 230 V model)**
- **Reliable, silent and maintenance-free**
- **Elegant design**

Function

Closed when currentless (NC model)

Initiating operating voltage heats up the expansion system of the actuator. After the time lag, a uniform opening process ensues.

If the voltage is cutoff, the actuator closes via the cooling of the expansion system after the time lag.

Open when currentless (NO model)

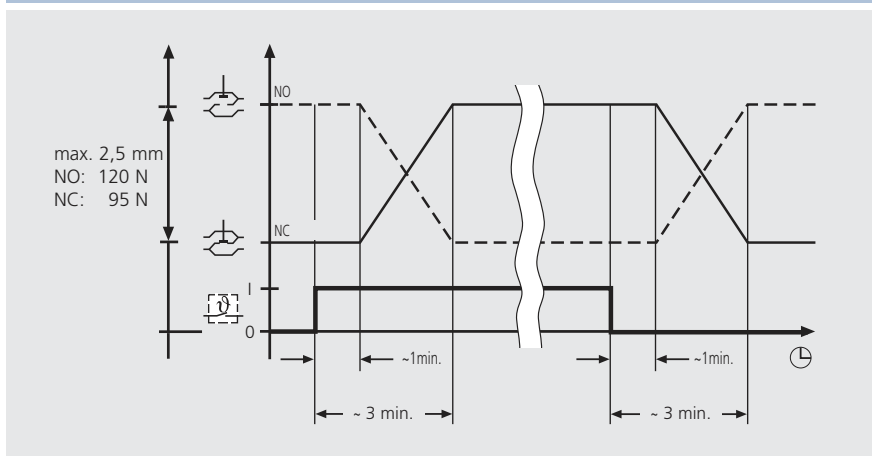
Initiating operating voltage heats up the expansion system of the actuator. After the time lag, a uniform closing process ensues.

If the voltage is cutoff, the actuator opens via the cooling of the expansion system after the time lag.

Note

When conducting a performance test, be sure to check the time response (time lag)!
Opening and closing times are dependent on the ambient temperature.

Action chart



Application

The EMO T thermal actuator can be installed in temperature and/or time-related 2-point control systems in, for example:

Heating installations

For floor, ceil, and radiator heating systems for individual room temperature control or group control in:

- apartments, conference rooms, storage rooms, schools, etc.
- For reverse switching, mass flow control, etc.

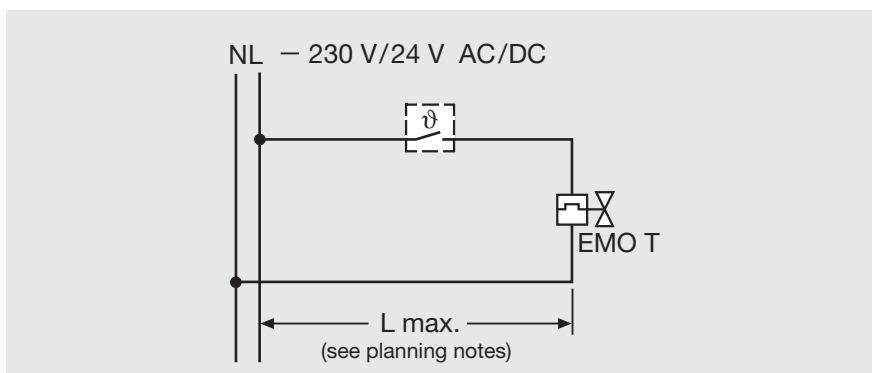
Ventilation installations

For room temperature control, e.g. controlling the flow of hot water through the air heaters.

Air conditioning systems

For room temperature control, e.g. regulating the flow of cold water from fan-coil units, ceil cooling systems, etc.

Connection diagram



Technical data

EMO T	230 V model	24 V model
Operating voltage: - frequency	230 V AC/DC (+10% / -15%) 0 to 60 Hz	24 V AC/DC (+25% / -10%) 0 to 60 Hz
Power draw: - when operating	3 W (VA) continuous operation 90 W (VA)	3 W (VA) continuous operation 9 W (VA)
Stroke:	2,5 mm	2,5 mm
Pressure power:	model NO 120 N / model NC 95 N	model NO 120 N / model NC 95 N
Close and open time:	ca. 3 min.	ca. 3 min.
Type of protection: - horizontal installation - vertical standing installation	based on EN 60529 IP 42 IP 43	based on EN 60529 IP 42 IP 43
Protection class:	II based on EN 60335	II based on EN 60335
Overvoltage protection:	Varistor	-
Body, color:	PC (shock-resistant), white RAL 9016	PC (shock-resistant), white RAL 9016
Connection cable:	1 m fixed, 2 x 0.75 mm ² (custom lengths upon request)	1 m fixed, 2 x 0.75 mm ² (custom lengths upon request)
CE certification (EMV / NS):	EN 55014 / EN 60730 and EN 60335	EN 55014 / EN 60730 and EN 60335
Ambient temperature:	0°C to 50°C in operation	0°C to 50°C in operation
Medium temperature:	max. 100°C (212°F)	max. 100°C (212°F)
Storage temperature:	-20°C to +70°C (-4°F to +158°F)	-20°C to +70°C (-4°F to +158°F)
Mounting:	fits all HEIMEIER thermostatic valve bodies and three-way valves	

Max. permissible differential pressure with closed valve: See prospectus for thermostatic valve body; three-way reversing valve; three-way mixing valve; control valves for floor heating systems

Article numbers

Currentless closed (NC)
1831-00.500

Currentless open (NO)
1835-00.500

Currentless closed (NC)
1841-00.500

Currentless open (NO)
1845-00.500

Dimensions

