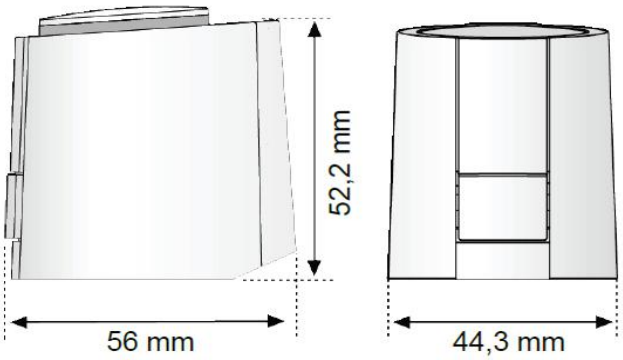
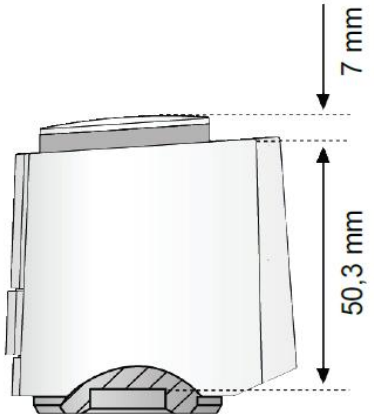
HERZ Actuator 7708

Data sheet for 7708 , Issue 0916

Dimensions



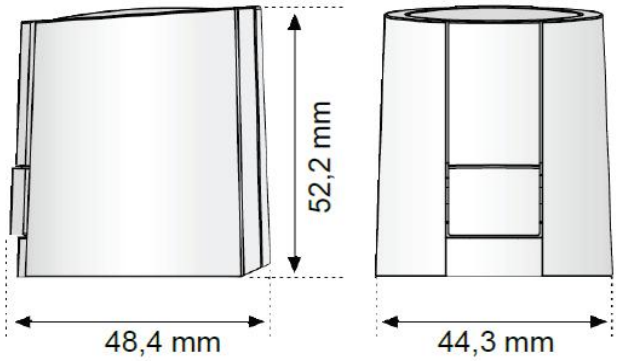
Dimensions



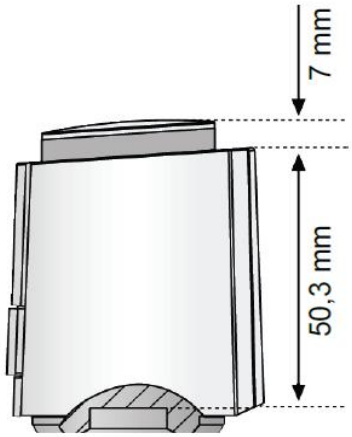
1 **7708** 37

Installation height

1 **7708** 37	**HERZ Actuator 2-point with end switch, M28 x 1.5, 230 V, 50 Hz** normally closed, closing force 100 N, operating voltage 230 V ~, threaded connection M28 x 1.5, blue adapter 1 **7708** 85 is included, max. stroke 5 mm



Dimensions



1 **7708** 31
1 **7708** 38
1 **7708** 39
1 **7708** 52
1 **7708** 53

Installation height

1 **7708** 31	**HERZ Actuator 2-point, M28 x 1.5, 230 V, 50 Hz** normally open, closing force 100 N, operating voltage 230 V ~, threaded connection M28 x 1.5, blue adapter 1 **7708** 85 is included, max. stroke 5 mm
1 **7708** 38	**HERZ Actuator 2-point, M28 x 1.5, 24 V, 50 Hz** normally closed, closing force 100 N, operating voltage 24 V ~, threaded connection M28 x 1.5, blue adapter 1 **7708** 85 is included, max. stroke 5 mm
1 **7708** 39	**HERZ Actuator 2-point, M28 x 1.5, 230 V, 50 Hz** normally closed, closing force 100 N, operating voltage 230 V ~, threaded connection M28 x 1.5, blue adapter 1 **7708** 85 is included, max. stroke 5 mm
1 **7708** 52	**HERZ Actuator 2-point, M28 x 1.5, 24 V, 50 Hz** normally closed, closing force 100 N, operating voltage 24 V ~, threaded connection M28 x 1.5, red adapter 1 **7708** 90 is included, max. stroke 5 mm
1 **7708** 53	**HERZ Actuator 2-point, M28 x 1.5, 230 V, 50 Hz** normally closed, closing force 100 N, operating voltage 230 V ~, threaded connection M28 x 1.5, red adapter 1 **7708** 90 is included, max. stroke 5 mm

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☑ **Application 1 7708** 37

The HERZ-Actuator 230 V with end switch is a thermoelectric valve drive for opening and closing valves and small valves used in the scope of HVAC technology. The integrated micro switch with floating contact allows direct operation of a pump or fan control unit. The HERZ Actuator 230 V with end switch is controlled by a 230 V room thermostat with two-point output or pulse-width modulation.

☑ **Application** 1 **7708** 31, 1 **7708** 38, 1 **7708** 39, 1 **7708** 52, 1 **7708** 53

The HERZ-Actuator 230 V / 24 V is a thermoelectric valve drive for opening and closing valves on heating circuit distributors of concealed floor heating and cooling systems. The main field of application is the energy-efficient individual room temperature control in the range of building management systems and home automation. The HERZ-Actuator 230 V / 24 V is controlled by a 230 V / 24 V room thermostat with two-point output or pulse-width modulation.

☑ **Operation**

The actuating drive is switched on via an electrical contact, e.g. from a room thermostat, and starts opening or closing the thermostatic valve. The actuating movement is accomplished by an electrically-heated expansion element. When the heating current is switched off, the valve closes or opens respectively. The HERZ actuating drive is maintenance-free and offers silent operation.

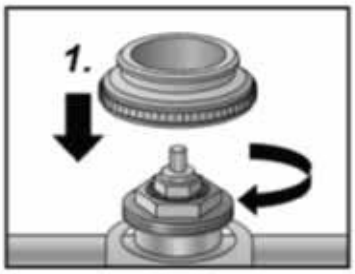
☑ **Emergency function**

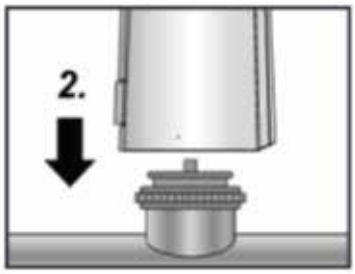
With factory setting “normally closed” the valve can be opened by removing the drive in case of a power failure.

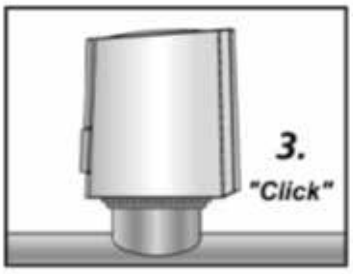
☑ **Installation** 1 **7708** 31, 1 **7708** 37, 1 **7708** 38, 1 **7708** 39, 1 **7708** 52, 1 **7708** 53

The wide selection of valve adapters guarantees a perfect match of the HERZ-Actuator to almost any valve bottom or manifold available on the market. Simply Snap-On the HERZ-Actuator to the manually pre-installed valve adapter.

- First the valve adapter is screwed on the valve manually.
- The HERZ-Actuator is placed vertically on the valve adapter.





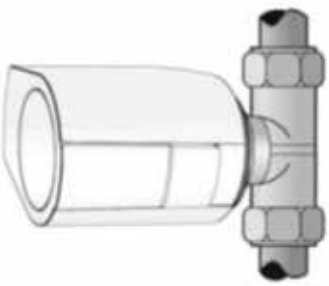


☑ **Installation position**

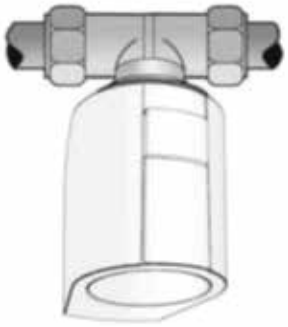
The HERZ-Actuator must be installed preferably in vertical or horizontal installation position. For “upside down” installation special circumstances (e. g. drain water) can reduce the lifetime of the actuator.



Vertical



Horizontal



Upside down

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Technical data 1 **7708** 31, 1 **7708** 39, 1 **7708** 53

Operating voltage	230 V AC, +10%...–10%, 50/60 Hz
Max. inrush current	< 550 mA during 100 ms max.
Operating power	1 W [1)]
Stroke (actuator travel)	5.0 mm
Actuating force	100 N ±5%
Fluid temperature	0 to +100°C [2)]
Storage temperature	-25°C to +60°C
Ambient temperature	0 to +60°C
Type of protection	IP 54 3) / II
CE conformity according to	EN 60730
Housing material/housing colour	Polyamide / light grey (RAL 7035)
Connecting cable/colour	2 x 0.75 mm2 PVC / light grey (RAL 7035)
Cable length	1 m
Weight with connecting cable (1 meter)	100 g
Surge protection according to EN 60730-1	min. 2.5 kV

1) measured with precision reference instrument LMG95. 2) in dependence of the adapter even higher. 3) in all installation positions.

Technical data 1 **7708** 38, 1 **7708** 52

Operating voltage	24 V AC/DC, +20%...-10%
Max. inrush current	< 300 mA during 2 min. max.
Operating power	1 W [1)]
Stroke (actuator travel)	5.0 mm
Actuating force	100 N ±5%
Fluid temperature	0 to +100°C [2)]
Storage temperature	–25°C to +60°C
Ambient temperature	0 to +60°C
Type of protection	IP 54 3) / III
CE conformity according to	EN 60730
Housing material/housing colour	Polyamide / light grey (RAL 7035)
Connecting cable/colour	2 x 0.75 mm2 PVC / light grey (RAL 7035)
Cable length	1 m
Weight with connecting cable (1 meter)	100 g
Surge protection according to EN 60730-1	min. 2.5 kV

1) measured with precision reference instrument LMG95. 2) in dependence of the adapter even higher. 3) in all installation positions.

Technical data 1 **7708** 37

Operating voltage	230 V AC, -10%...+10%, 50/60 Hz
Max. inrush current	< 550 mA during max. 100 ms
Operating power	1 W [1)]
Stroke (actuator travel)	5.0 mm
Actuating force	100 N ±5%
Switching current for micro switch	230 V AC: 5 A resistive load, 1 A inductive load
Switching point of micro switch NC	approx. 2 mm
Fluid temperature	0 - +100°C [2)]
Storage temperature	-25 °C to +60°C
Ambient temperature	0 to +60°C
Degree / class of protection	IP 54 3) / II
CE conformity according to	EN 60730
Casing material / colour	Polyamide / light grey (RAL 7035)
Connection line / colour	4 x 0.75 mm² PVC / light gray (RAL 7035)
Cable length	1 m
Weight with connecting cable (1 m)	approx. 150 g
Surge protection according to EN 60730-1	min. 2.5 kV

1) measured with precision reference instrument LMG95. 2) in dependence of the adapter even higher. 3) in all installation positions.

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Room thermostat

Standard room thermostats equipped with a thermal feedback loop can be used for pilo ng the HERZ actua ng drive. If required, several drives can be connected in parallel taking the maximum admissible electrical load of the switch contact into account.

Design and planning notes

When selec ng the switch contacts and mains fuses, the inrush current of the hea ng element must be taken into account. The voltage loss in the electric lines must not exceed 10 %, ensuring that the indicated run me is guaranteed.

Max. cable length for an actua ng drive with given cable cross-sec ons (informa on with voltage drop approx. 5 %; at 230 V voltage drop is 10 V, at 24 V voltage drop is 1 V).

When using several actua ng drives, the indicated cable length must be divided by the number of actua ng drives connected.

Cable cross-section(mm^2)	**230 V**, max. length (m)	**24 V**, max. length(m)
2 x 0.75	1500	168
2 x 1.0	2000	224
2 x 1.5	3000	340
2 x 2.5	5000	560

Resistance values

Please refer to the HERZ standard diagrams contained in the relevant standard sheets with regard to resistance values when opera ng HERZ valves with HERZ actua ng drives. The curves "Valve fully open" or "max." apply.

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