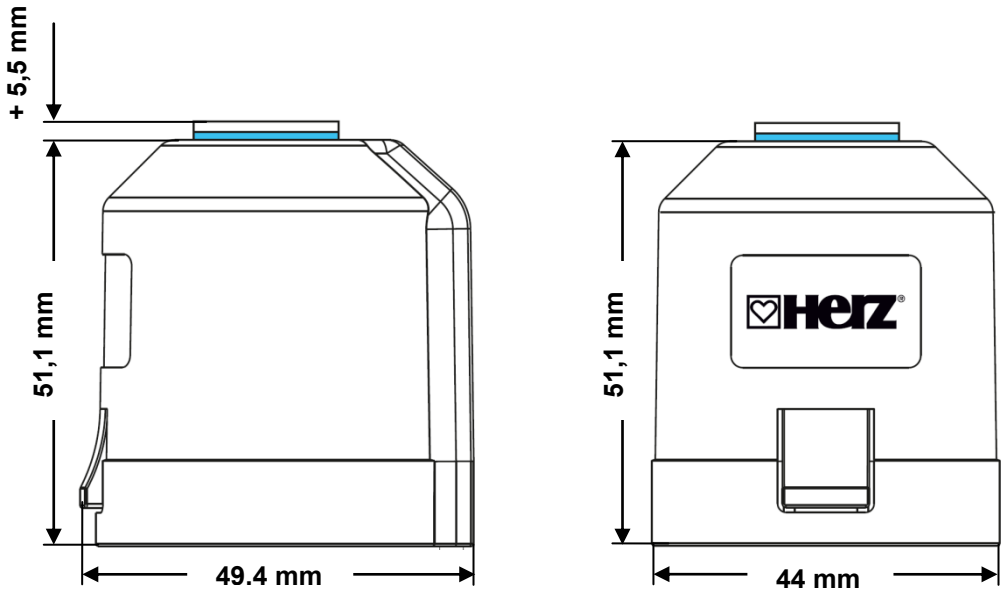
HERZ Actuator Project 7708

Data sheet for 1 **7708** 6X, Issue **0823**

Dimensions



Models

1 **7708** 66 **HERZ Actuator 2-point, M28 x 1.5, 230 V, 50 Hz, NC**
normally closed, actuating force 100 N ± 5%, operating voltage 230 V / AC, threaded connection M28 x 1.5, blue adapter 1 **7708** 85 is included, max. stroke 4 mm

1 **7708** 67 **HERZ Actuator 2-point, M28 x 1.5, 230 V, 50 Hz, NC**
normally closed, actuating force 100 N ± 5%, operating voltage 230 V / AC, threaded connection M28 x 1.5, red adapter 1 **7708** 90 is included, max. stroke 4 mm

1 **7708** 68 **HERZ Actuator 2-point, M28 x 1.5, 24 V AC/DC, 0-60 Hz, NC**
normally closed, closing force 100 N ± 5%, operating voltage 24 V / AC/DC, threaded connection M28 x 1.5, blue adapter 1 **7708** 85 is included, max. stroke 4 mm

1 **7708** 69 **HERZ Actuator 2-point, M28 x 1.5, 24 V AC/DC, 0-60 Hz, NC**
normally closed, closing force 100 N ± 5%, operating voltage 24 V / AC/DC, threaded connection M28 x 1.5, red adapter 1 **7708** 90 is included, max. stroke 4 mm

Features

- compact design, small dimensions
- normally closed - version (NC)
- all-round function display
- with First Open-feature
- maintenance free
- noiseless
- high operational safety and life expectancy
- high overvoltage resistance
- low power consumption
- 360° assembly position
- plug-in assembly
- valve-adapter-concept
- adaptation monitoring on valve

Application 1 **7708** 6X

The HERZ actuator Project **7708** 230 V / 24 V is used for an optimum control of valves and heating manifolds. The HERZ actuator Project 230 V / 24 V is controlled by a 230 V / 24 V room thermostat with two point output or pulse-width modulation.

Operation

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

Valve-adapter-assortment

The valve adapter assortment guarantees a perfect match of the actuator to almost all valve inserts and heating circuit distributors available on the market. The selection table for adapters can be found on page 4 and 5. The HERZ Actuator Project **7708** is simply plugged on to the valve adapter previously installed manually.

Function indicator

The function indicator (all-round indicator) of the HERZ actuator Project **7708** shows at a glance whether the valve is open or closed.

Normally Closed (NC)

At the version “normally closed”, when the operating voltage is switched on - after the end of the delay time - the closed valve is steadily opened by the pin movement. By switching off the operating voltage and reaching the end of the setting time, the valve is closed steadily by the actuating force of the tongue. The actuating force of the tongue is matched to the actuating force of commercially available valves and keeps the valve closed when currentless.

“First-Open” function (only for NC)

The HERZ actuator Project is delivered in a normally open state because of the First-Open function. By means of this feature it is possible to open the heating or cooling system even before an electrical wiring stage is completed. When the operating voltage is applied longer than six minutes to the actuator, then it will be unlocked and ready-for-use. Once the “First-Open”-function has been activated a bigger force is required to mount the actuator.

HERZ Transformer 230/24 V

The overload-proof HERZ safety transformer 230/24 V 1 **7796** 04 is designed for the connection of HERZ room thermostats and HERZ actuator Project and suitable for the operation of a maximum of 8 HERZ actuating drives.

Technical data 1 **7708** 66, 1 **7708** 67

Model	normally closed (NC)
Operating voltage	230 V AC, +10%...–10%, 50/60 Hz
Max. start up current	300 mA for max. 200 ms
Operating power	2 W
Closing and opening times	approx. 3 min
Stroke (actuator travel)	4 mm
Actuating force	100 N ±5%
Fluid temperature	0 to +100 °C (depending on adapter also higher)
Storage temperature	-25 °C to +60 °C
Ambient temperature	0 to +60 °C
Type of protection	IP54 (in all assembly positions) / II
CE conformity according to	EN 60730
Housing material/housing colour	Polyamide / grey
Connecting cable/colour	2 x 0.75 mm^2 PVC / grey
Cable length	1 m
Weight with connecting cable (1 metre)	100 g
Surge protection according to EN 60730-1	min. 2.5 kV

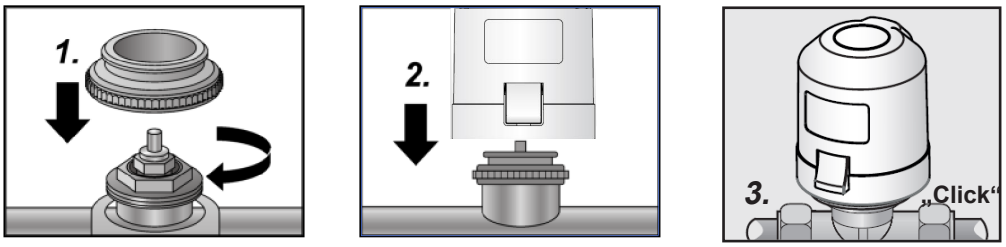
Technical data 1 **7708** 68, 1 **7708** 69

Model	normally closed (NC)
Operating voltage	24 V AC/DC, +20 %...–10 %, 0-60 Hz
Max. start up current	250 mA for max. 2 min
Operating current	75 mA
Operating power	2 W
Closing and opening times	approx. 3 min
Stroke (actuator travel)	4 mm
Actuating force	100 N ± 5%
Fluid temperature	0 to +100 °C (depending on adapter also higher)
Storage temperature	-25 °C to +60 °C
Ambient temperature	0 to +60 °C
Type of protection	IP 54 (in all assembly positions) / III
CE conformity according to	EN 60730
Housing material/housing colour	Polyamide / grey
Connecting cable/colour	2 x 0.75 mm² PVC / grey
Cable length	1 m
Weight with connecting cable (1 meter)	100 g

Installation 1 **7708** 6X

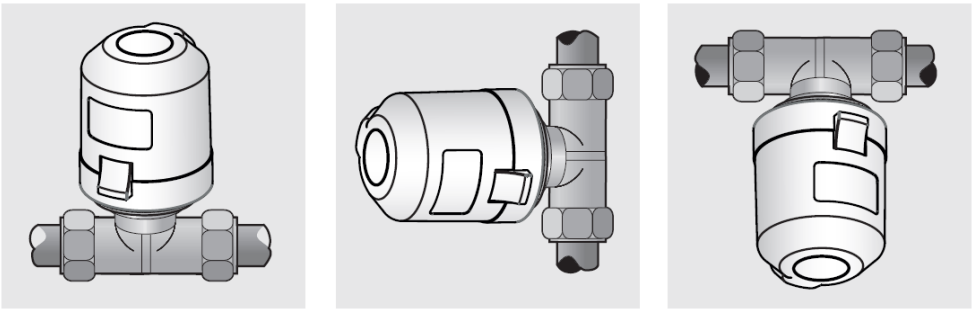
The wide selection of valve adapters guarantees a perfect match of the HERZ actuator Project to almost any valve insert or manifold available on the market. Simply snap-on the HERZ actuator Project to the manually pre-installed valve adapter.

- First the valve adapter is screwed on the valve manually.
- The HERZ actuator Project is placed vertically on the valve adapter.
- The HERZ actuator Project snaps onto the valve adapter with a “click” when pressed down vertically by hand.



Mounting position

The HERZ actuator Project should be installed in a vertical or horizontal mounting position. With „overhead“ mounting, certain circumstances (e.g., dirty water) can reduce the lifetime.



vertical **horizontal** **overhead**

Adapter for the actuator Project

1 **7708** 90	Colour red, adapter M28 x 1,5 for the use with HERZ- heating circuit distributor and HERZ valves in combination with 2-point-actuators.
1 **7708** 85	Colour blue, adapter M28 x 1,5 for HERZ 4002, 4006 SMART and 7217 GV in combination with 2-point-actuators.
1 **7708** 80	Colour grey, tappet red, adapter M 28 x 1.5, for use with 7217-98-V, 7217-99-V in combination with 2-point-actuators.
1 **7708** 98	Colour whitish-grey, adapter M 30 x 1.5 for use with HERZ valves with M 30 x 1.5. Threaded connection, HERZ control valves 7760, 7762 and 7763 and for Heimeier valves with M 30 x 1.5.

Adapter-Valve-Diagram

			Valve types										
			TS-90-DE LUXE	TS-98-V DE LUXE	DE LUXE TS-3000	DE LUXE VUA	TS-98-V (M28 x 1,5)	TS-90-V (M28 x 1,5)	TS-99-FV (M28 x 1,5)	TS-90-KV (M28 x 1,5)	TS-90 (M28 x 1,5)	TS-90-E (M28 x 1,5)	TS-E (M28 x 1,5)
Adapters and actuators	red	2-Point-Regulation 1 **7708** 67 1 **7708** 69	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑

Adapter-Valve-Diagram

			Valve types										
			TS-90 DIN (M28 x 1,5)	TS-90-V DIN (M28 x 1,5)	TS-98-V DIN (M28 x 1,5)	TS-99-FV DIN (M28 x 1,5)	TS-98-VH (M30 x 1,5)	TS-90-H (M30 x 1,5)	TS-98-VH (M30 x 1,5)	TS-3000 (M28 x 1,5)	TS-3000 (M30 x 1,5)	TS-90 (M28 x 1,5)	Calis-TS (M28 x 1,5)
Adapters and actuators	red	2-Point-Regulation 1 **7708** 67 1 **7708** 69	☑	☑	☑	☑	☑**	☑**	☑**	☑	☑**	☑	☑
	blue	2-Point-Regulation 1 **7708** 66 1 **7708** 68					☑**	☑**	☑**		☑**		
		**	Adapter 1 **7708** 98 has to be ordered separately										

Adapter-Valve-Diagram

			Valve types										
			Calis-TS-E (M28 x 1,5)	VTA-40 (M28 x 1,5)	VTA-50 (M30 x 1,5)	VUA-AHA (M28 x 1,5)	VUA-40 (M28 x 1,5)	VUA-50 (M30 x 1,5)	4002 (M28 x 1,5)	4006 SMART (M28 x 1,5)	7217 V (M28 x 1,5)	7217 GV (M28 x 1,5)	7217-98-V (M28 x 1,5)
Adapters and actuators	red	2-Point-Regulation 1 **7708** 67 1 **7708** 69	☑	☑	☑**	☑	☑	☑**			☑		☑*
	blue	2-Point-Regulation 1 **7708** 66 1 **7708** 68			☑**			☑**	☑	☑		☑	☑*
		*	Adapter 1 **7708** 80 has to be ordered separately										
		**	Adapter 1 **7708** 98 has to be ordered separately										

Adapter-Valve-Diagram

			Valve types						
			7217-99-FV (M28 x 1,5)	7723 zone valve (M28 x 1,5)	7760 RD (M28 x 1,5)	7761 RD (M28 x 1,5)	7760 (M30 x 1,5)	7762 (M30 x 1,5)	7763 (M30 x 1,5)
Adapters and actuators	red	2-Point-Regulation 1 **7708** 67 1 **7708** 69	☑*	☑	☑	☑	☑**	☑**	☑**
	blue	2-Point-Regulation 1 **7708** 66 1 **7708** 68	☑*				☑**	☑**	☑**
		*	Adapter 1 **7708** 80 has to be ordered separately						
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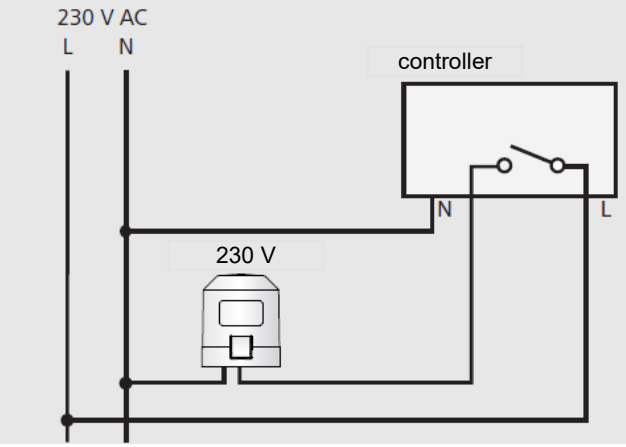
Electrical connections 1 **7708** 66, 1 **7708** 67

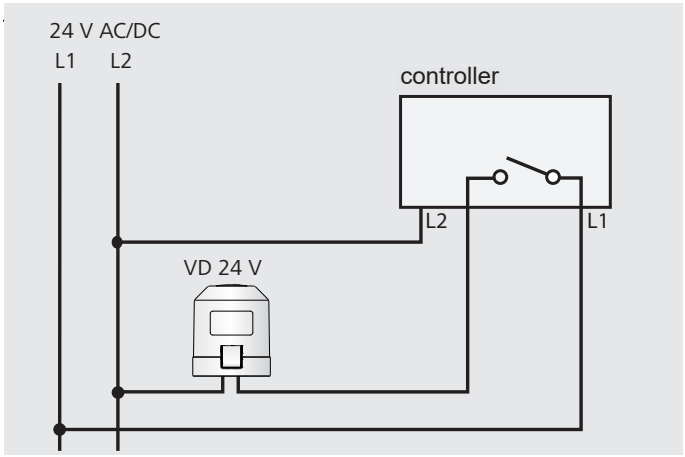


We recommend usage of the following lines for installing a 230 V system:

Light plastic-sheathed cable NYM 1.5 mm² or

flat webbed building wire NYIF 1.5 mm²

Electrical connections 1 **7708** 68, 1 **7708** 69



We recommend usage of the following lines for installing a 24 V system:

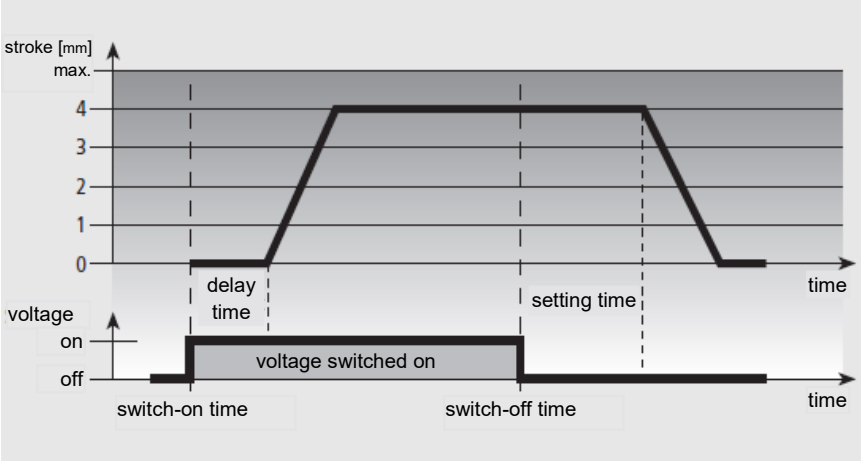
Light plastic-sheathed cable NYM 1.5 mm² (max. 136 m), flat webbed building wire NYIF 1.5 mm² (max. 136 m) or a telecommunications cable J-Y(ST)Y 0.8 mm² (max. 45 m).

Transformer/power supply unit

A safety transformer according to EN 61558-2-6 (for AC version) or a switched-mode power supply according to EN 61558-2-16 (for DC version) must always be used. The dimensioning of the safety transformer or the switching power supply results from the switch-on power of the actuators Project. Rule of thumb: PTransformer = 6 W x n n = number of actuators Project.

Operating behaviour

Normally Closed (NC)



Disposal notice

The disposal of HERZ actuator Project must not endanger the health or the enviroment. National legal regulations for proper disposal of the HERZ actuator Project have to be followed.