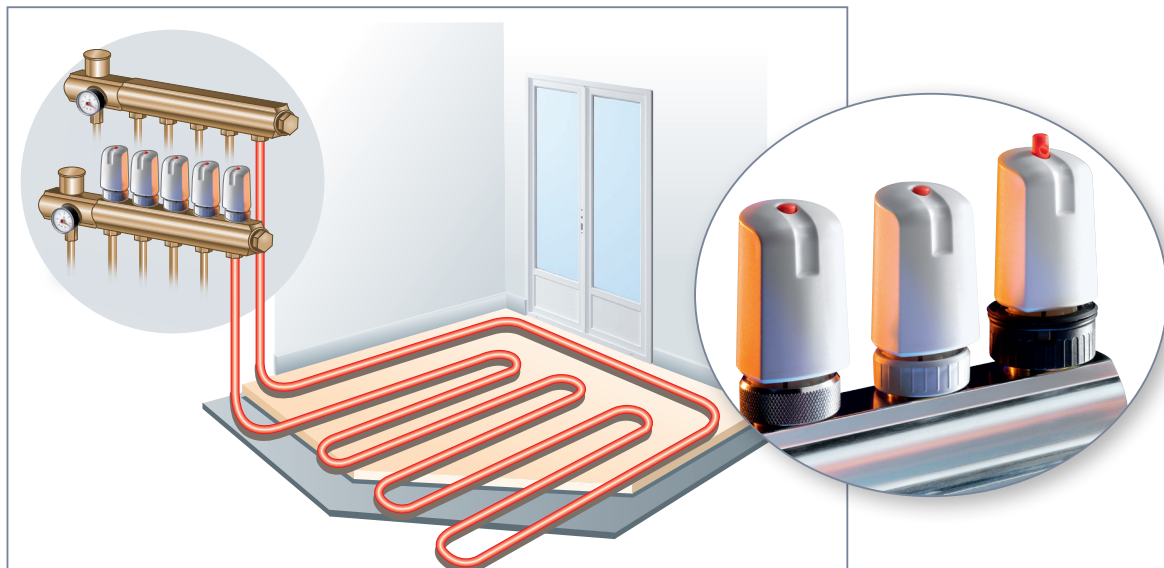


THERMAQUA® Actuators

Precise and reliable temperature control

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Precise and reliable temperature control



■ TECHNOLOGY AND FEATURES

The THERMAQUA® Actuators guarantee precise and reliable temperature control with many advantageous features:

Easy to assemble



With the 'First-Open' and 'Click' functions

The integrated 'First-Open' function allows easy assembly of the THERMAQUA® actuator. The lock maintains the actuator in an open position, allowing mounting to the valve with minimal effort. Upon commissioning, the lock is removed leaving the actuator ready for operation

Actuators can be optionally fitted with the click feature where upon assembly; the adapter is screwed onto the valve leaving the actuator locked in place

Silent operation
Easy to service
Tailored design
Functionality testing
Protection
Variable voltage
Optimized features
Energy saving
Long service life
Direct Digital Control

Feature of thermo-electric actuators
Visual function check device
Valve adjustment to customer specifications
Certification to VDE standards
According to EN60529 standard (for both IP40 and IP44)
230/240V or 24V availability
Available with / without auxiliary switch
Low power consumption
Manufactured precision and quality control
DDC 0-10 V version (documentation upon request)

■ APPLICATIONS

- Underfloor, wall and ceiling heating / cooling systems
- Radiators
- Convectors
- Valve controls

■ VERNET QUALITY ACCREDITATIONS

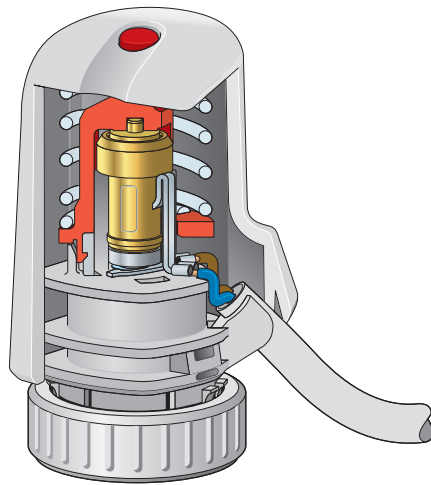
- ISO 9001 : 2008
- VDE

THERMAQUA®
Actuators



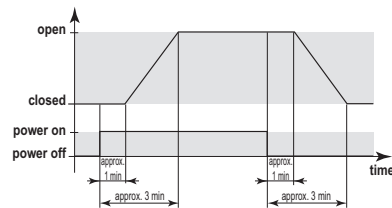
TECHNICAL DATA

PRINCIPLES OF OPERATION



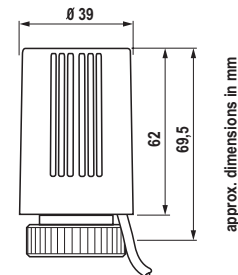
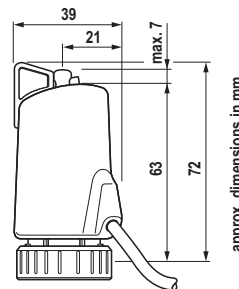
Designed for normally closed control valves, THERMAQUA® actuators perform various control and regulation tasks as a two-step actuator (open/close). The wax element is heated electrically by the applied operating voltage and silently opens the valve.

Without any operating voltage the wax element is no longer heated and the actuator closes (see time-stroke diagram). THERMAQUA® actuators also allow for instant functionality checks of the device.



THERMAQUA® ACTUATOR FAMILY

- * In the version with auxiliary switch it is possible to switch e.g.
- operating hour meters,
 - circulation pumps,
 - control lamps and
 - fan blower convectors on and off.



Equipment	THERMAQUA® Actuator		THERMAQUA® Actuator with switch	
Volts	230V	24V	230V	24V
Drawing no.	X7.565._	X7.565._024	X7.592._	X7.592._024
Inrush current short term	195 mA	740 mA	320 mA	270 mA
Constant current/power	9 mA/2 W	60 mA/2 W	7 mA/2 W	70 mA/2 W
Closing and opening times	approx. 3 min	approx. 3 min	approx. 3 min	approx. 3 min
Stroke	approx. 3,5 mm	approx. 3,5 mm	approx. 3,5 mm	approx. 3,5 mm
Spring force	90 N +20/-10%	90 N +20/-10%	90 N +20/-10%	90 N +20/-10%
Ambient temperature	max. 60°C	max. 60°C	max. 45°C	max. 45°C
Auxiliary switch switch current			0,5 (0,5) A	0,5 (0,5) A
Design				
Protection type according to EN60529	IP40	IP40	IP44 Vertical and horizontal assembly	IP44 Vertical and horizontal assembly
Housing	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate
Connector	Polyamide	Polyamide	Polyamide	Polyamide
Weight (without union nut/adaptor)	approx. 86g	approx. 86g	approx. 105g	approx. 105g
Connecting cable	2 x 0,75 mm² HO5V V-F white length 600mm	2 x 0,75 mm² HO5V V-F white length 600mm	4 x 0,35 mm² PVC white length 600mm	4 x 0,35 mm² PVC white length 600mm
Humidity	from 10 to 90% non condensing	from 10 to 90% non condensing	from 10 to 90% non condensing	from 10 to 90% non condensing