

Temperature monitor TW

For monitoring temperatures in heating water systems, hot water systems and other applications in heating, ventilation and air conditioning systems. When the setpoint temperature is reached, the 1-pin changeover contact (SPDT) is switched. Four different mounting types are possible.

- Pipe contact mounting
- Thermowell mounting
- Wall mounting with probe in flange
- Wall mounting with probe in thermowell



Type Overview

Type	Output signal temperature switch	Additional features	Capillary
01HT-101CA	Changeover	Auto reset	1 m

Technical data

	Electrical data	Electrical connection	Spring loaded terminal max. 2.5 mm ²
		Cable entry	Cable gland with strain relief M20x1.5 mm, for cable ø6...12 mm
	Functional data	Medium	Air Water
		Output signal temperature switch note	AC 230 V 16 (2.5) A @ Switch position 1-2 AC 230 V 6.3 (2.5) A @ Switch position 1-4 DC 230 V 0.25 A
		Switching reliability	Min. switching current 100 mA @ AC / DC 24 V
	Measuring data	Measured values	Temperature
Specification temperature passive		Adjustment range	30...90
		Switching differential	Typ. 4.2 K
		Accuracy temperature	±1.8 K (upper third of measuring range) ±3.6 K (at scale beginning of measuring range)
	Safety data	Degree of protection IEC/EN	IP54 IP protection with mounted sealing elements
		EU Conformity	CE Marking
		Certification IEC/EN	DIN EN 60730-1 and DIN EN 14597
		Quality Standard	ISO 9001
		Type of action	Type 2 BL
		Ambient humidity	Max. 95% RH, non-condensing
		Ambient temperature	0...80°C [32...175°F] On temperature probe max. setpoint +25 K, on switch head max. 80°C [175°F]
		Fluid temperature	Up to max. 115°C
		Storage temperature	-30...80°C [-22...176°F]
	Materials	Housing	Bottom: PA (RAL 7001, silver grey) Cover: ABS with inspection glass (PMMA) Seal: NBR
		Cable gland	PA6, black
		Capillary	Copper

Safety notes



This device has been designed for use in stationary heating, ventilation and air-conditioning systems and must not be used outside the specified field of application. Unauthorised modifications are prohibited. The product must not be used in relation with any equipment that in case of a failure may threaten humans, animals or assets.

Ensure all power is disconnected before installing. Do not connect to live/operating equipment.

Only authorised specialists may carry out installation. All applicable legal or institutional installation regulations must be complied with during installation.

The device contains electrical and electronic components and must not be disposed of as household refuse. All locally valid regulations and requirements must be observed.



During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

Remarks

Remark surface measurements

When measuring temperature, humidity or condensation on a surface, both the temperature of the surface and that of the ambient air influence the measurement result. When measuring on a pipe surface, the influence of the ambient air can be minimised by using thermal contact fluid.

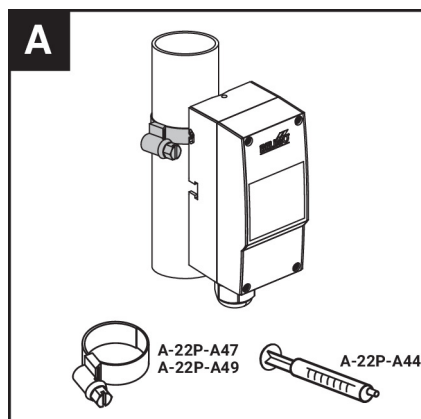
Switching function

If the temperature on the sensor exceeds the setpoint value, the changeover is activated by the transmission mechanics and the electrical circuit is opened resp. closed. If the temperature falls (cooling down), the changeover is reset to its initial position.

Installation notes

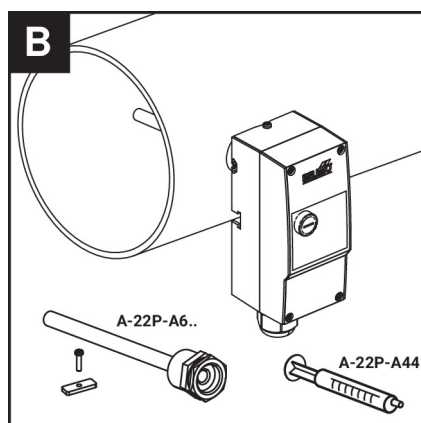
Installation situation The temperature monitors can be installed in four different ways.

Pipe contact mounting



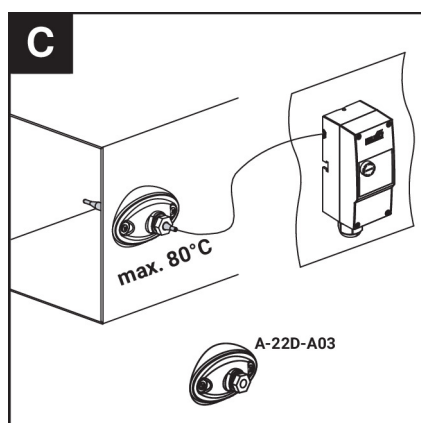
The tightening strap is included in the scope of delivery

Thermowell mounting



The thermowell A-22P-A6... is available as an optional accessory

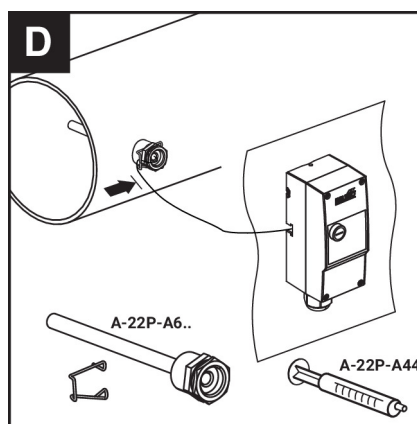
Wall mounting with probe in flange



The A-22D-A03 flange is available as an optional accessory

Installation notes

Wall mounting with probe in immersion sleeve



The thermowell A-22P-A6... is available as an optional accessory

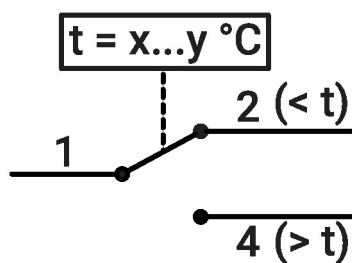
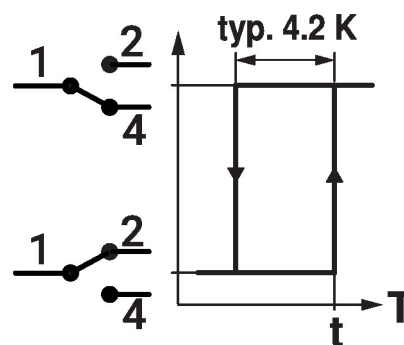
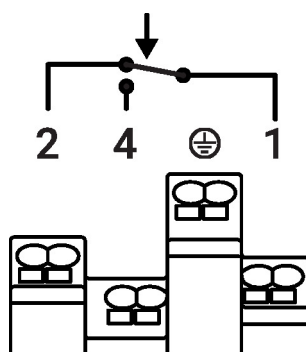
Parts included

Fixing strap for pipes from ø15...100 mm

Accessories

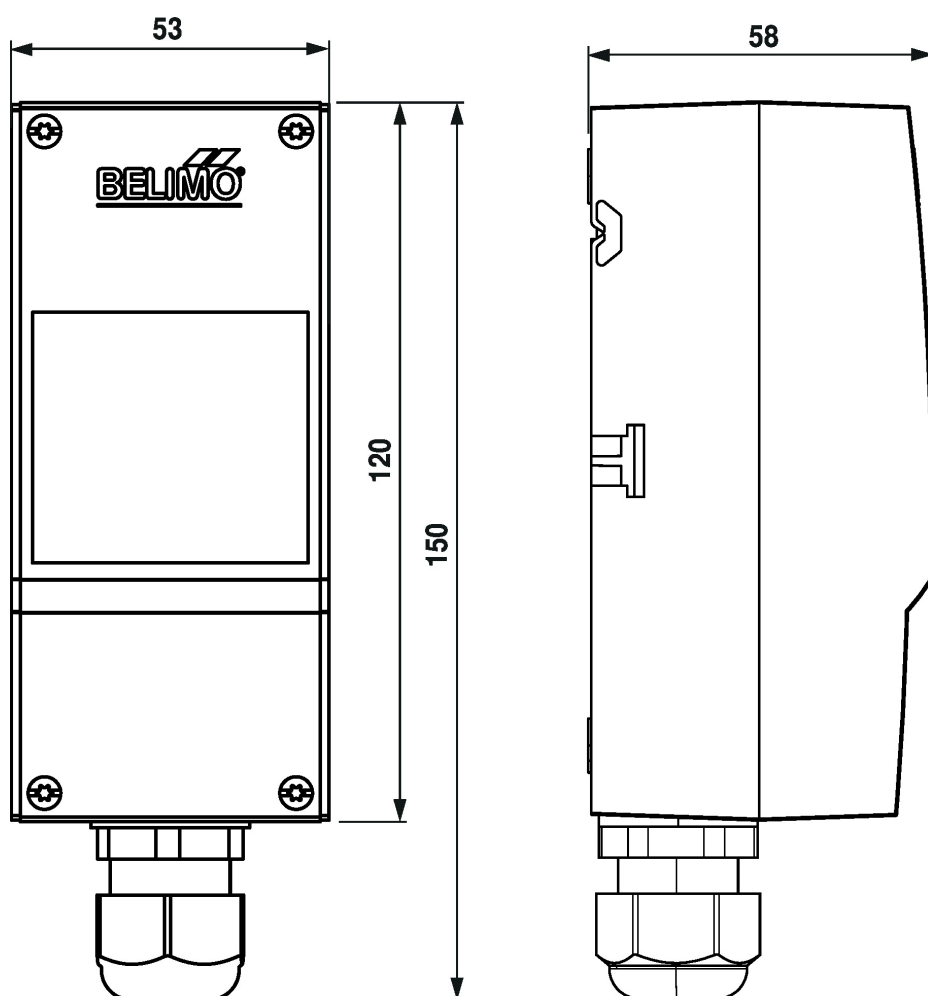
Optional accessories	Description	Type
	Thermal contact fluid	A-22P-A44
	Fixing strap, for pipes ø20...110 mm [0.8...4.3"]	A-22P-A47
	Fixing strap, for pipes ø20...250 mm [0.8...9.8"]	A-22P-A49
	Mounting flange for sensor probe 6 mm, up to max. 120°C [248°F], Plastic	A-22D-A03
Recommended accessories water	Description	Type
	Thermowell kit (fabricated) Brass nickel-plated, 100 mm, G 1/2", SW22	A-22P-A61
	Thermowell kit (fabricated) Brass nickel-plated, 150 mm, G 1/2", SW22	A-22P-A62
	Thermowell kit (fabricated) Brass nickel-plated, 200 mm, G 1/2", SW22	A-22P-A63
	Thermowell kit (fabricated) Stainless steel, 100 mm, G 1/2", SW22	A-22P-A64
	Thermowell kit (fabricated) Stainless steel, 150 mm, G 1/2", SW22	A-22P-A65
	Thermowell kit (fabricated) Stainless steel, 200 mm, G 1/2", SW22	A-22P-A66

Wiring diagram



If the capillary leaks, the electrical circuit 1-2 remains permanently closed.

Dimensions



Type

01HT-101CA

Weight

0.25 kg

Further documentation

- Installation instructions