Technical data sheet 01PT-1..

Immersion temperature sensor with fast response characteristics

For temperature measurement of liquid fluids. With 50/100/200 mm stainless steel probe and connection R 1/2". IP65 / NEMA 4 rated enclosure.

5 YEAR WARRANTY

Type Overview

Type	Output signal	Probe length	Probe diameter
01PT-1BH	Pt1000	50 mm	6/4 mm
01PT-1BL	Pt1000	100 mm	6/4 mm
01PT-1BP	Pt1000	200 mm	6/4 mm
01PT-1DH	Ni1000TK5000	50 mm	6/4 mm
01PT-1DL	Ni1000TK5000	100 mm	6/4 mm
01PT-1DP	Ni1000TK5000	200 mm	6/4 mm
01PT-1LH	NTC10k (10k2)	50 mm	6/4 mm
01PT-1LL	NTC10k (10k2)	100 mm	6/4 mm
01PT-1LP	NTC10k (10k2)	200 mm	6/4 mm

Technical Data

Electrical data	Electrical connection	Removable spring loaded terminal block max. 2.5 mm²
	Cable entry	Cable gland with strain relief Ø6...8 mm
Functional data	Output signal passive temperature	Pt1000 Ni1000TK5000 NTC10k (10k2)
	Application	Air Water
Measuring data	Measuring values	Temperature
	Measuring range temperature	Pt.., Ni.. : -50...160°C [-60...320°F] NTC.. : -50...150°C [-60...300°F]
	Accuracy temperature passive	Passive Sensors depending on used type Pt.. : Class B, ±0.3°C @ 0°C [±0.5°F @ 32°F] Ni.. : ±0.4°C @ 0°C [±0.7°F @ 32°F] NTC.. : ±0.2°C @ 25°C [±0.35°F @ 77°F]
	Measuring current	Pt1000: <0.3 mA @ 0°C [32°F] Ni1000TK5000: <0.3 mA @ 0°C [32°F] NTC10k (10k2): <2 mA @ 25°C [77°F]
	Time constant τ (63%) in water pipe	typical 2.5 s

Materials	Cable gland	Plug Adapter: PA66, black Nut: PA6, black
	Housing	Cover: Lexan, orange Bottom: Lexan, orange Seal: 0467 NBR70, black UV resistant
	Sensor probe	Stainless steel V4A (1.4404, 1.4571, 1.4301) Thread R 1/2" Nominal pressure PN10
Safety data	Ambient humidity	Max. 95% r.H., non-condensing
	Ambient temperature	-35...50°C [-30...120°F]
	Fluid temperature	Pt.., Ni.. : -50...160°C [-60...320°F] NTC.. : -50...150°C [-60...300°F]
	Housing surface temperature	Max. 90°C [195°F]
	Protection class IEC/EN	III Safety Extra-Low Voltage (SELV)
	Protection class UL	UL Class 2 Supply
	EU Conformity	CE Marking
	Certification IEC/EN	IEC/EN 60730-1
	Certification UL	cULus acc. to UL60730-1A/-2-9, CAN/CSA E60730-1:02/-2-9
	Degree of protection IEC/EN	IP65
	Degree of protection NEMA/UL	NEMA 4X
	Quality Standard	ISO 9001

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 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.

Remarks

General remarks concerning sensors

Due to self-heating with 2 wire passive sensors, the supply wire current affects the measurement accuracy. So the supply current should not be higher than the measuring current values specified in this data sheet.

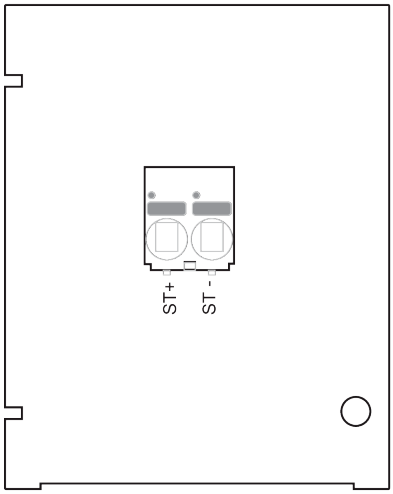
When using lengthy connecting cables (depending on the cross section used), the cable resistance must be taken into account. The lower the impedance of the sensor used, the greater the effect of the line resistance on the measurement, because it generates an offset.

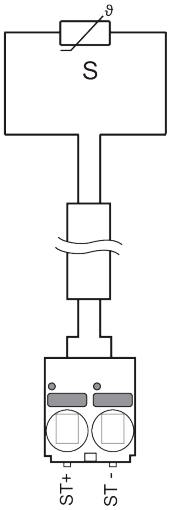
Accessories

Optional accessories

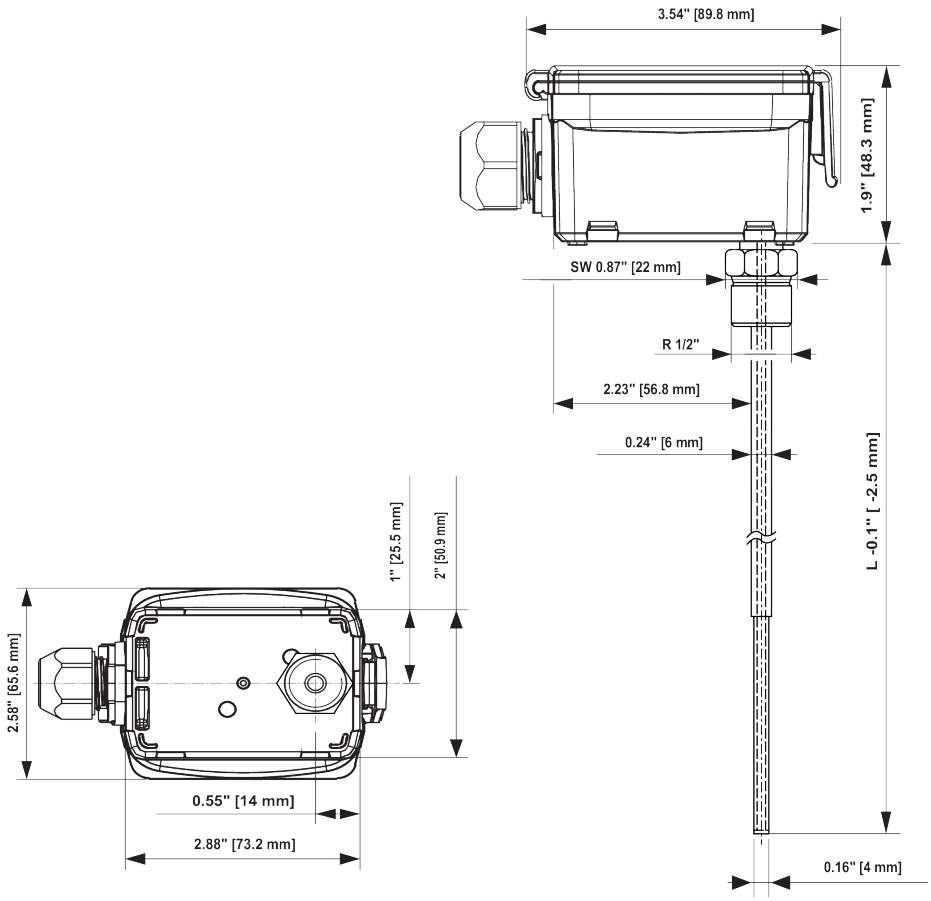
Description	Type
Connection adapter, M20x1.5, for cable 1x6 mm,	A-22G-A01.1

Wiring diagram





Dimensions



Type	Probe length	Weight
01PT-1BH	50 mm	0.17 kg
01PT-1BL	100 mm	0.17 kg
01PT-1BP	200 mm	0.19 kg
01PT-1DH	50 mm	0.17 kg
01PT-1DL	100 mm	0.17 kg
01PT-1DP	200 mm	0.19 kg
01PT-1LH	50 mm	0.17 kg
01PT-1LL	100 mm	0.17 kg
01PT-1LP	200 mm	0.19 kg