

Cable temperature sensor with mounting flange

For temperature measurement in air ducts.
With 100/200 mm stainless steel probe and PVC cable.



Type Overview

Type	Output signal	Probe length	Probe diameter
01CT-1ALF	Pt100	100 mm	6 mm
01CT-1APF	Pt100	200 mm	6 mm
01CT-1BLF	Pt1000	100 mm	6 mm
01CT-1BPF	Pt1000	200 mm	6 mm
01CT-1CLF	Ni1000	100 mm	6 mm
01CT-1CPF	Ni1000	200 mm	6 mm
01CT-1DLF	Ni1000TK5000	100 mm	6 mm
01CT-1DPF	Ni1000TK5000	200 mm	6 mm
01CT-1LLF	NTC10k (10k2)	100 mm	6 mm
01CT-1LPF	NTC10k (10k2)	200 mm	6 mm
01CT-1QLF	NTC20k	100 mm	6 mm
01CT-1QPF	NTC20k	200 mm	6 mm

Technical Data

Electrical data	Electrical connection	Cable 2 m, 2-wire
Functional data	Application	Air
	Output signal passive temperature	Pt100 Pt1000 Ni1000 Ni1000TK5000 NTC10k (10k2) NTC20k
Measuring data	Measured values	Temperature
	Measuring range temperature	-35...100°C [-30...210°F]
	Accuracy temperature passive	Passive sensors depending on used type Pt.. : Class B, $\pm 0.3^{\circ}\text{C}$ @ 0°C [$\pm 0.5^{\circ}\text{F}$ @ 32°F] Ni.. : $\pm 0.4^{\circ}\text{C}$ @ 0°C [$\pm 0.7^{\circ}\text{F}$ @ 32°F] NTC.. : $\pm 0.2^{\circ}\text{C}$ @ 25°C [$\pm 0.35^{\circ}\text{F}$ @ 77°F]
	Measuring current	Pt100: $< 1\text{ mA}$ @ 0°C [32°F] Pt1000: $< 0.3\text{ mA}$ @ 0°C [32°F] Ni1000: $< 0.3\text{ mA}$ @ 0°C [32°F] Ni1000TK5000: $< 0.3\text{ mA}$ @ 0°C [32°F] NTC10k (10k2): $< 2\text{ mA}$ @ 25°C [77°F] NTC20k: $< 0.5\text{ mA}$ @ 25°C [77°F]
	Time constant τ (63%) in air duct	Typical 155 s @ 0 m/s Typical 35 s @ 3 m/s

Measuring data	Time constant τ (63%) in water pipe	With thermowell A-22P-A.. and thermal contact fluid Typical 7 s with thermowell brass Typical 9 s with thermowell stainless steel
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Safety data	Ambient humidity	Max. 95% RH, non-condensing
	Ambient temperature	-35...100°C [-30...210°F]
	Fluid temperature	-35...100°C [-30...210°F]
	Protection class IEC/EN	III, Protective Extra-Low Voltage (PELV)
	Power source UL	Class 2 Supply
	Certification IEC/EN	IEC/EN 60730-1
	Degree of protection IEC/EN	IP67
	Degree of protection NEMA/UL	NEMA 4X
	Quality Standard	ISO 9001
	Mode of operation	Type 1
	Pollution degree	3
	Rated impulse voltage supply	0.8 kV
	Construction	Independently mounted control
	Method of mounting control	Surface mounted

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.

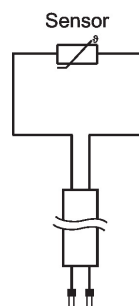
Remarks

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.

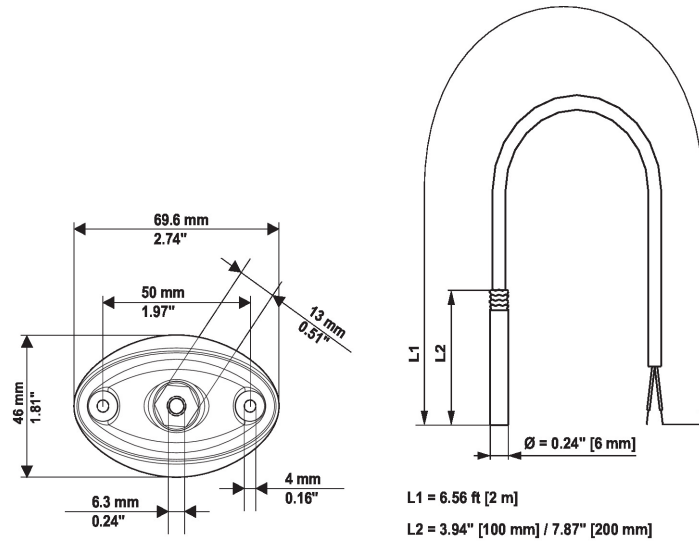
When using lengthy connecting cables (depending on the cross section used), the cable resistance must be taken into account. The lower the impedance of the sensor used, the greater the effect of the line resistance on the measurement, because it generates an offset.

Scope of delivery

Scope of delivery	Description	Type
	Mounting flange for sensor probe 6 mm, up to max. 120°C [248°F], Plastic	A-22D-A03

Wiring diagram


Dimensions



Type	Probe length	Weight
01CT-1ALF	100 mm	0.070 kg
01CT-1APF	200 mm	0.075 kg
01CT-1BLF	100 mm	0.070 kg
01CT-1BPF	200 mm	0.075 kg
01CT-1CLF	100 mm	0.070 kg
01CT-1CPF	200 mm	0.075 kg
01CT-1DLF	100 mm	0.070 kg
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01CT-1LPF	200 mm	0.075 kg
01CT-1QLF	100 mm	0.070 kg
01CT-1QPF	200 mm	0.075 kg