

Contact temperature sensor

For temperature measurement on pipe and arched surfaces. Plenum rated cable and a brass probe for fast response and accuracy.



5-year warranty



Type Overview

Type	Output signal passive temperature	Cable length
01ST-5A3	Pt100	6.5 ft [2 m]
01ST-5B3	Pt1000	6.5 ft [2 m]
01ST-5E3	Ni1000 (JCI)	6.5 ft [2 m]
01ST-5L3	NTC10k (10k2)	6.5 ft [2 m]
01ST-5M3	NTC10k3 (Precon)	6.5 ft [2 m]
01ST-5Q3	NTC20k	6.5 ft [2 m]

Technical data

Electrical Data	Electrical connection	cable 6.5 ft [2 m], 2-wire
	Cable specification	1 pair shielded plenum cable, 22AWG tinned copper, green jacket, -40...300°F [-40...150°C], 300 V
Functional Data	Application	water
	Output signal passive temperature	Pt100 Pt1000 Ni1000 (JCI) NTC10k (10k2) NTC10k3 (Precon) NTC20k
Measuring Data	Measured values	Temperature
Specification Temperature	Measuring range	-40...300°F [-40...150°C]
	Measuring current	Pt100: <1 mA @ 32°F [0°C] Pt1000: <0.3 mA @ 32°F [0°C] Ni1000 (JCI): <5 mA @ 21°C [70°F] NTC10k2: <2 mA @ 77°F [25°C] NTC10k3: <2.7 mA @ 77°F [25°C] NTC20k: <0.5 mA @ 77°F [25°C]
	Accuracy temperature passive	Passive sensors depending on used type Pt.. : ±0.5°F @ 32°F [±0.3°C @ 0°C] Ni.. : ±0.7°F @ 32°F [±0.4°C @ 0°C] NTC.. : ±0.35°F @ 77°F [±0.2°C @ 25°C]
	Time constant τ (63%) on water pipe	With thermal contact fluid Typical 17 s

Technical data

Materials	Housing	Cover: PC, orange Bottom: PC, orange Seal: NBR70, black UV resistant UL94 5VA
Safety Data	Protection class IEC/EN	III, Protective Extra-Low Voltage (PELV)
	Power source UL	Class 2 Supply
	Degree of protection IEC/EN	IP65
	Certification IEC/EN	IEC/EN 60730-1
	Quality Standard	ISO 9001
	UL 2043 Compliant	Suitable for use in air plenums per Section 300.22(C) of the NEC and Section 602 of the IMC
	Type of action	Type 1
	Rated impulse voltage supply	0.8 kV
	Method of mounting control	Surface mounted
	Pollution degree	3
	Ambient humidity	Max. 95% RH, non-condensing
	Ambient temperature	-40...300°F [-40...150°C]
	Fluid temperature	-40...300°F [-40...150°C]

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. Unauthorized 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 authorized 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.

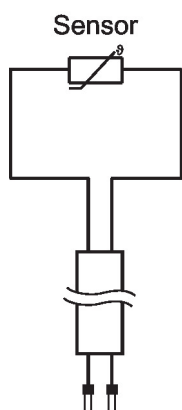
Parts included

Description	Type
Fixing strap, for pipes ø20...110 mm [0.8...4.3"]	A-22P-A47

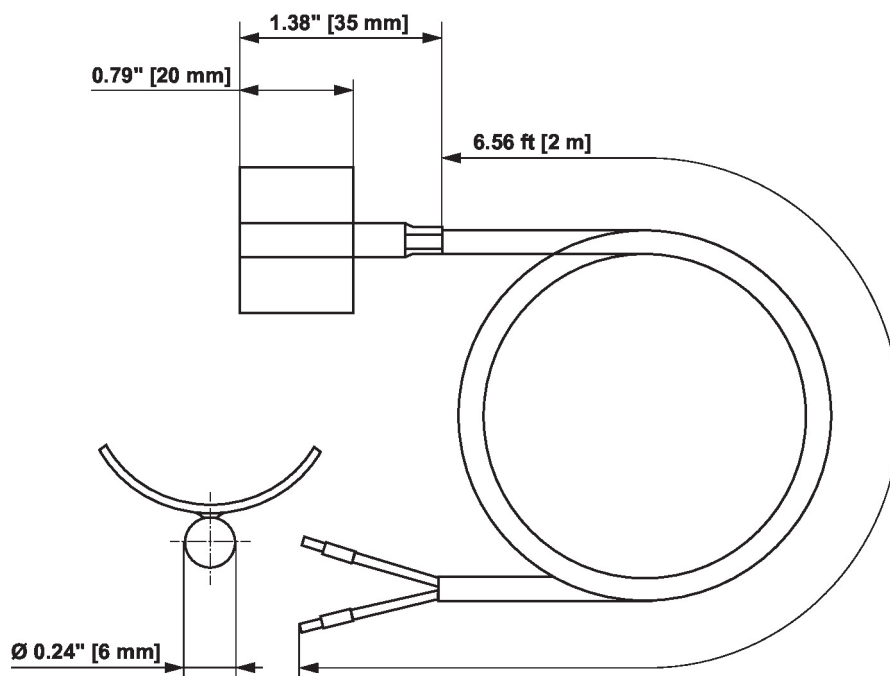
Accessories

Optional accessories	Description	Type
	Fixing strap, for pipes ø20...250 mm [0.8...9.8"]	A-22P-A49
	Syringe with thermal paste	A-22P-A44

Wiring Diagram



Dimensions



Type	Weight
01ST-5A3	0.13 lb [0.06 kg]
01ST-5B3	0.13 lb [0.06 kg]
01ST-5E3	0.13 lb [0.06 kg]
01ST-5L3	0.13 lb [0.06 kg]
01ST-5M3	0.13 lb [0.06 kg]
01ST-5Q3	0.13 lb [0.06 kg]

Further documentation

- Installation instructions
- Resistance characteristics