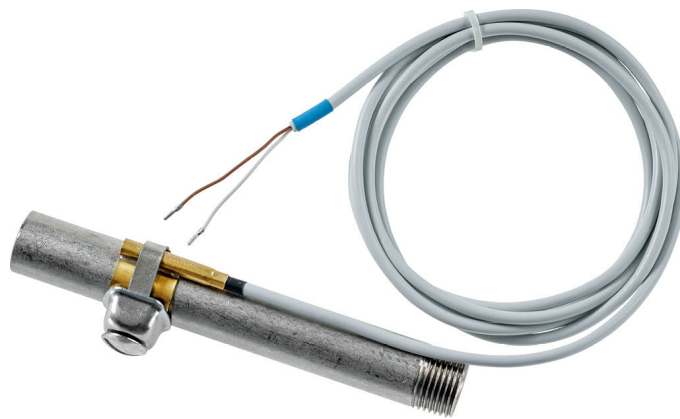


Contact temperature sensor

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


Type Overview

| Type | Output signal passive temperature |
|----------|-----------------------------------|
| 01ST-1A3 | Pt100 |
| 01ST-1B3 | Pt1000 |
| 01ST-1C3 | Ni1000 |
| 01ST-1D3 | Ni1000TK5000 |
| 01ST-1F3 | NTC1k8 |
| 01ST-1L3 | NTC10k (10k2) |
| 01ST-1Q3 | NTC20k |

Technical Data

| | | |
|------------------------|--|---|
| Electrical data | Electrical connection | Cable 2 m, 2-wire |
| Functional data | Application | Water |
| | Output signal passive temperature | Pt100 Pt1000 Ni1000 Ni1000TK5000 NTC1k8 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] NTC1k8 : $\pm 0.5^{\circ}\text{C}$ @ 25°C [$\pm 0.9^{\circ}\text{F}$ @ 77°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] NTC1k8: $< 0.1\text{ mA}$ @ 25°C [77°F] NTC10k (10k2): $< 2\text{ mA}$ @ 25°C [77°F] NTC20k: $< 0.5\text{ mA}$ @ 25°C [77°F] |
| | Time constant τ (63%) on water pipe | With thermal contact fluid Typical 17 s |
| 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) |

| | | |
|--------------------|------------------------------|-------------------------------|
| Safety data | Power source UL | Class 2 Supply |
| | Certification IEC/EN | IEC/EN 60730-1 |
| | Degree of protection IEC/EN | IP65 |
| | 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.

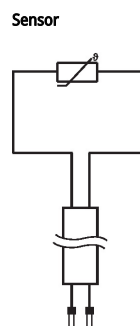
When using lengthy connecting cables (depending on the cross section used), the cable resistance must be taken into account. The lower the impedance of the sensor used, the greater the effect of the line resistance on the measurement, because it generates an offset.

Scope of delivery

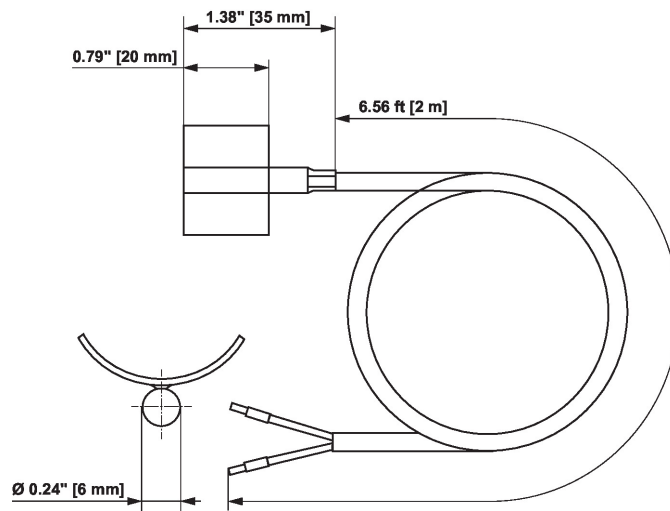
| Scope of delivery | Description | Type |
|-------------------|--|-----------|
| | Fixing strap, for pipes up to Ø 40...110 mm [1.6...4.3"] | A-22P-A47 |

Accessories

| Optional accessories | Description | Type |
|----------------------|--|-----------|
| | Syringe with thermal paste | A-22P-A44 |
| | Fixing strap, for pipes up to Ø 40...250 mm [1.6...9.8"] | A-22P-A49 |

Wiring diagram


Dimensions



| Type | Weight |
|----------|---------|
| 01ST-1A3 | 0.08 kg |
| 01ST-1B3 | 0.08 kg |
| 01ST-1C3 | 0.08 kg |
| 01ST-1D3 | 0.08 kg |
| 01ST-1F3 | 0.08 kg |
| 01ST-1L3 | 0.08 kg |
| 01ST-1Q3 | 0.08 kg |