

SRA-T Indoor Temperature Sensor



Features

- Thermistor, NI and PT sensing elements to fit your system
- Simple and secure installation
- Wide range of temperature probes

Applications

- Indoor temperature measurement

Temperature Sensor

The sensor measures the temperature by use of a NTC, PT, or NI-sensing element. The sensing element is either a glass packed thermistor with a negative temperature coefficient, a platinum film or a nickel thin layer based probe. Its resistance changes according to the temperature. The change follows a specified curve. Contact our sales department for curves not yet listed below.

Ordering

| Item name | Article # | Probe Type | Definition | Comments |
|-----------|------------|-------------------|-------------------------|-----------------|
| SRA-Tn3 | 40-20 0036 | NTC 3kΩ at 77°F | B _{25/50} 3935 | |
| SRA-Tn10 | 40-20 0005 | NTC 10kΩ at 77°F | B _{25/50} 3935 | Vector standard |
| SRA-Tn11 | 40-20 0037 | NTC 10kΩ at 77°F | B _{25/50} 3630 | |
| SRA-Tn20 | 40-20 0038 | NTC 20kΩ at 77°F | B _{25/50} 4200 | |
| SRA-Tn100 | 40-20 0039 | NTC 100kΩ at 77°F | B _{25/50} 4200 | |
| SRA-Tp1 | 40-20 0040 | PT100 | EN60751 | |
| SRA-Tp2 | 40-20 0041 | PT1000 | EN60751 | |
| SRA-Tk5 | 40-20 0042 | NI1000 | 5000 ppm/K | |


Installation

Mount the unit on a flat interior wall of the room to be controlled. Avoid obstructions such as shelves, curtains and recesses. Do not place near heat sources, draft channels. Do not expose to direct sunlight. The end of the conduit at the sensor must be sealed to prevent false measurements due to draughts through the conduit.

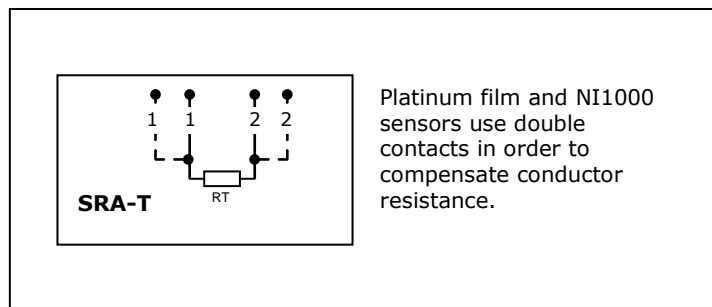
Installation procedure:

- Disassemble base plate from unit by loosening mounting screw.
- Install the base plate on the interior wall
- Pull the conductors through the central opening of mounting plate
- Connect the wires according to the wiring diagram to the measuring circuit in the cover:
 - The Thermistors require two conductors; normally 18ga unshielded twisted pair.
 - The PT100, PT1000 and NI1000 sensors come with each two terminal connectors in order to connect up to four conductors for compensating conductor resistance.
- Assemble the cover with the base plate and tighten mounting screw.

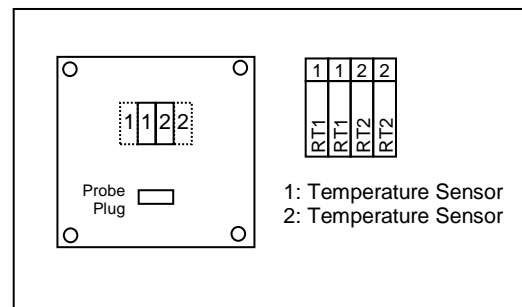
Technical Specification

| | | |
|---------------|--|---|
| Sensing Probe | Thermistor: | NTC |
| | Range: (Probe only) | -70...150°C (-94...302°F) |
| | Accuracy: -40...0°C (-40...32°F): | 0.5 K |
| | 0...50°C (32...122°F): | 0.2 K |
| | 50...100°C (122...212°F): | 0.5 K |
| | > 100°C (> 212°F): | 1 K |
| | Platinum-Film: | PT according EN 60751 |
| | Range: (Probe only) | -70...200°C (-94...392) |
| | Accuracy | EN 60751, Class B |
| | Nickel Thin Layer: | 1000 \pm at 0°C, 5000 ppm/K |
| | Range: (Probe only) | -60...200°C (-76...392°F) |
| | Accuracy | DIN 43760 |
| Connection | Terminal Connectors | For wire 0.34...2.5 mm ² (AWG 24...12) |
| Environment | Operation | To IEC 721-3-3 |
| | Climatic Conditions | class 3 K5 |
| | Temperature | -50...100°C (-58...212°F) |
| | Humidity | <95% R.H. non-condensing |
| | Transport & Storage | To IEC 721-3-2 and IEC 721-3-1 |
| | Climatic Conditions | class 3 K3 and class 1 K3 |
| | Temperature | -40...80°C (-40...176°F) |
| | Humidity | <95% R.H. non-condensing |
| Standards | Mechanical Conditions | class 2M2 |
| |  conform according to | EN 61 000-6-1/ EN 61 000-6-3 |
| | | |
| | | |
| | Product standards | |
| | Automatic electrical controls for household and similar use | EN 60 730 -1 |
| | Special requirement on temperature dependent controls | EN 60 730 - 2 - 9 |
| | Degree of Protection | IP30 to EN 60 529 |
| Housing | Safety Class | III (IEC 60536) |
| | Material Cover | Fire proof ABS plastic |
| | Mounting Plate | Galvanized Steel |
| | Dimensions (H x W x D) | 21 x 88 x 88 mm (0.8 x 3.5 x 3.5 in) |
| | Weight (including package) | 150 g (5.3 oz) |

Wiring Diagram



Terminal Connections



Dimension [mm]

