



## Product Description

### Frost Protection Sensor

The frost protection sensor NCSTAFP1 is an accurate NTC10 type temperature detector, designed for temperature measurement of HVAC applications with fast response time requirement. Temperature is detected by an NTC thermistor with nominal resistance of 10 k $\Omega$ /25 $^{\circ}$ C. The time constant of the sensor is about 2,5 seconds.

### Application

The frost protection sensor is designed for temperature measurement of HVAC applications with fast response time requirement, such as monitoring of heating coils against frost.

### Installation

The sensor is installed to the radiator by means of a joint with R $\frac{1}{4}$ " thread. The mounting depth can be adjusted to max. 210 mm. The sensor stem is made of stainless steel for prolonged life.

## Technical Information

|                           |  |
|---------------------------|--|
| <b>Sensor</b>             | 10 k $\Omega$ NTC thermistor             |
| <b>Nominal Resistance</b> | 10 k $\Omega$ / 25 $^{\circ}$ C          |
| <b>Range</b>              | -50 ... 120 $^{\circ}$ C                 |
| <b>Accuracy</b>           | $\pm$ 0.2 $^{\circ}$ C / 25 $^{\circ}$ C |
| <b>Time Constant</b>      | appr. 2.5 s                              |
| <b>Mounting</b>           | R 1/4" thread                            |
| <b>Stem</b>               | 4 mm x 200 mm                            |
| <b>Connecting Cord</b>    | $\varnothing$ 2.8 mm x 2 m               |
| <b>Pressure Rating</b>    | PN16                                     |

## Features & Benefits

- ▶ Accurate NTC10 type thermistor with nominal resistance of 10 k $\Omega$  / 25 $^{\circ}$ C
- ▶ Designed for applications with fast response time requirement
- ▶ Applicable for monitoring Air-Heating Radiators against frost
- ▶ Sensor stem is made of Stainless Steel

## Temperature / Resistance Table

| C   | NTC 10 / $\Omega$ | C   | NTC 10 / $\Omega$ |
|-----|-------------------|-----|-------------------|
| 120 | 389.0             | 25  | 10000.0           |
| 100 | 680.0             | 20  | 12490.0           |
| 90  | 917.7             | 15  | 15710.0           |
| 80  | 1258.0            | 10  | 19900.0           |
| 75  | 1480.0            | 5   | 25400.0           |
| 70  | 1752.0            | 0   | 32650.0           |
| 65  | 2082.0            | -5  | 42340.0           |
| 60  | 2488.0            | -10 | 55330.0           |
| 55  | 2968.0            | -15 | 72980.0           |
| 50  | 3603.0            | -20 | 97070.0           |
| 45  | 4368.0            | -25 | 130400.0          |
| 40  | 5327.0            | -30 | 177000.0          |
| 35  | 6532.0            | -40 | 336500.0          |
| 30  | 8057.0            | -50 | 670100.0          |

## Ordering Codes

NCSTAFP1

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