



Cable Temperature Sensors

QAH11...

Use

The sensors are for use in HVAC plants to acquire the temperature in fan coil units. Because of their insulation, the sensors are especially suited for use with controllers whose sensor signal input are not galvanically separated from the AC 230 V mains. The sensors are used as:

- return air temperature sensors
- changeover sensors

Type summary

| Type reference | Features |
|----------------|---|
| QAH11 | Cable temperature sensor with connectors 2.8 x 0,8 mm |
| QAH11.1 | Cable temperature sensor with ferrules |

Accessories

| Name | Type reference |
|-------------------------|----------------|
| Changeover mounting kit | ARG86.3 |

Ordering and delivery

When ordering, please give name and type reference of sensor and/or changeover mounting kit.

The sensor is supplied without the changeover mounting kit.

Functions

The sensor acquires the air or medium temperature by means of its NTC sensing element. The resistance value changes according to the temperature to be acquired. It is available for further handling by a suitable controller.

Mechanical design

The sensor consists of a two-wire cable with NTC sensing element and connectors. The changeover mounting kit, which is available as an accessory item, is used for fitting the sensor to a pipe (12...16 mm dia.).

Mounting notes

The sensors should be fitted where it can best acquire the temperature to be measured. When fitting to a pipe, the pipe must not be lagged where the sensor is located.

Disposal



The devices are considered electronics devices for disposal in terms of European Directive 2012/19/EU and may not be disposed of as domestic waste.

- Dispose of the device via the channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.

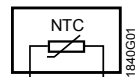
Technical data

| | | |
|--------------------------|--------------------------------|---|
| Functional data | Operating range | -20...+70 °C 1) |
| | Sensing element | NTC (3 kΩ at 25 °C) |
| | Time constant in static air | 1.5 min |
| | Accuracy at 25 °C | ±0.3 K |
| | Type of measurement and output | passive |
| Protection data | Protection class | II according to EN 60730-1 |
| Electrical connections | Length of measuring lead | approx. 2.5 m |
| | Type of cable | H03VV-F2 2 x 0.75 black |
| | Length | 2.5 m |
| | Electrical connection | plug connectors 2.8 x 0.8 mm ferrules |
| Directives and Standards | Product standard | EN 60730-1 Automatic electrical controls for household and similar use |
| | Environmental compatibility | The product environmental declaration CE1E17012) contains data on environmentally compatible product design and assessments (RoHS compliance, materials composition, packaging, environmental benefit, disposal). |
| Weight | incl. packaging | 0.07 kg |

1) If the connecting cable is not fixed, only -5 °C is permitted as the low temperature limit.

2) The documents can be downloaded from <http://siemens.com/bt/download>.

Internal diagram

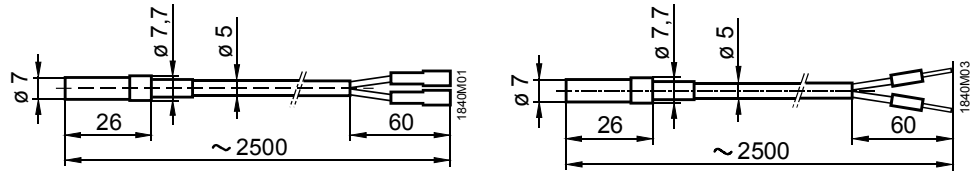


Resistance characteristic NTC 3 kΩ at 25 °C

| | | | | | | | | | | |
|--------------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|
| Temp. in °C | -20 | -15 | -10 | -5 | 0 | +5 | +10 | +15 | +20 | +25 |
| Resist. in Ω | 29'751 | 22'257 | 16'815 | 12'825 | 9'867 | 7'656 | 5'991 | 4'722 | 3'750 | 3'000 |
| Temp. in °C | +30 | +35 | +40 | +45 | +50 | +55 | +60 | +65 | +70 | |
| Resist. in Ω | 2'416 | 1'958 | 1'597 | 1'310 | 1'081 | 897.0 | 747.9 | 627.0 | 528.0 | |

Dimensions (in mm)

QAH11, QAH11.1



ARG86.3

