



## 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
<b>QAH11</b>	Cable temperature sensor with connectors 2.8 x 0,8 mm
<b>QAH11.1</b>	Cable temperature sensor with ferrules

### Accessories

Name	Type reference
Changeover mounting kit	<b>ARG86.3</b>

### 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 device is considered electrical and electronic equipment for disposal in terms of the applicable European Directive and may not be disposed of as domestic garbage.

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

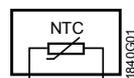
## Technical data

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
	EU conformity (CE)	A5W00034313 2)
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

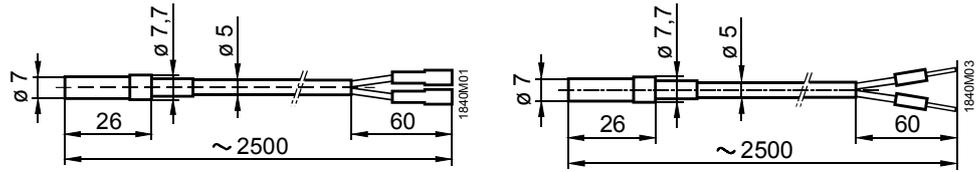


## Resistance characteristic NTC 3 kΩ at 25 °C

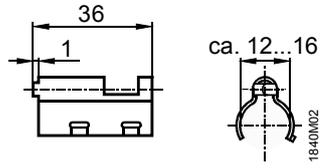
Temp. in °C	-20	-15	-10	-5	0	+5	+10	+15	+20	+25
Resist. in Ω	29'751	22'257	16'815	12'825	9'867	7'656	5'991	4'722	3'750	3'000
Temp. in °C	+30	+35	+40	+45	+50	+55	+60	+65	+70	
Resist. in Ω	2'416	1'958	1'597	1'310	1'081	897.0	747.9	627.0	528.0	

**Dimensions (in mm)**

**QAH11, QAH11.1**



**ARG86.3**



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