1840P01

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 (50 pcs/package)	**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

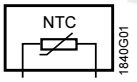
The sensors should be fitted where it can best acquire the temperature to be measured. When fitting to a pipe, the pipe must not be lagged where the sensor is located.

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
Protective data	Insulation class	II as per EN 60 730
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	
	AH11	plug connectors 2.8 x 0.8 mm
	AH11.1	ferrules
Weight	incl. packaging	0.07 kg

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

Internal diagram

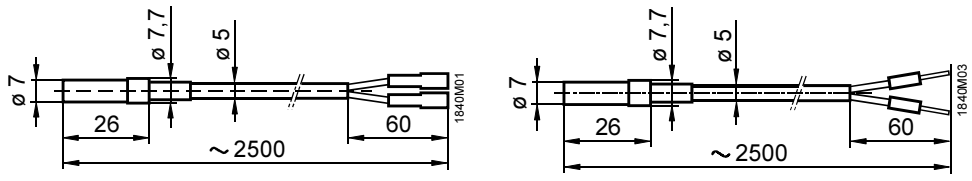


Resistance characteristic NTC 3 kΩ at 25 °C

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



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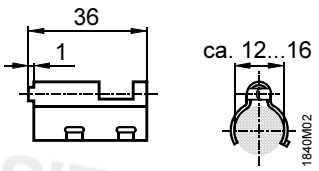

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