Cable temperature sensor QAP1030/UFH

Use

The cable temperature sensor is used in electrical floor heating systems to monitor and limit the floor temperature.
Owing to its insulation, the sensor is especially suited for use with controllers or room thermostats whose sensor signal inputs are not galvanically separated from the AC 230 V mains network.

Type summary

Product No.	Description
QAP1030/UFH	Cable temperature sensor with ferrules, cable length approx. 4 m

Ordering and delivery

When ordering, please indicate product No., order number and description:

Product No.	Order number	Description
QAP1030/UFH	**S55720-S289**	Cable temperature sensor

Technical design

The QAP1030/UFH acquires the floor temperature via its NTC 3k sensing element. The element's resistance value changes depending on the temperature it acquires. It is available for further handling by a suitable controller or room thermostat.

Mechanical design

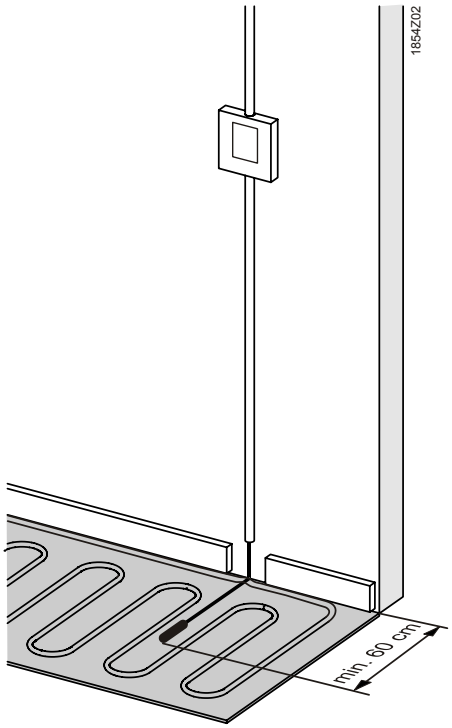
The sensor consists of a 2-wire cable of approximately 4 m length with ferrules and an NTC 3k sensing element.

Mounting notes

Mounting location: The sensor's cable is to be run from the controller or room thermostat to the sensing element's location in the floor. It should preferably be run in a protective plastic tube (from the controller or room thermostat to the measuring point in the floor) – should it become necessary to replace the sensor at a later stage.
The sensing element must not get in contact with the electrical floor mat. The distance of the measuring point in the floor from the wall should be a minimum of 60 cm.

Note:
To be able to acquire the floor temperature as accurately as possible, no furniture should be placed on the floor where the sensing element is located.

Mounting example



Disposal notes

The device is considered an electronics device for disposal in terms of European Directive 2012/19/EU 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.

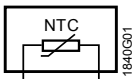
Technical data

Function data	Measuring range	-20...70 °C [1]
	Sensing element	NTC (3 kΩ at 25 °C)
	Time constant in static air	1.5 min
	Measuring accuracy at 25 °C	±0.3 K
	Type of measurement and output	Passive
Protection data	Protection class	II according to EN 60730-1
Electrical connection	Connecting cable	2-wire, interchangeable
	Type	H03VV-F2, 2 x 0.50 white
	Length	Approx. 4 m
	End of cable	Ferrules
Weight	Incl. packaging	Approx. 0.165 kg
Conformity	EU Declaration of Conformity	A5W00034313-A [2]

1) If the connecting cable is not fixed, the lower temperature limit is only -5 °C!

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

Internal diagram

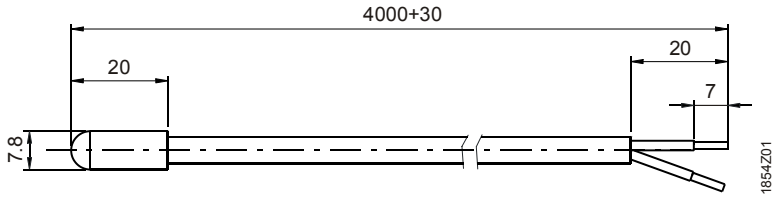


Characteristics of NTC 3k sensing element at 25 °C

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

Dimensions (in mm)

QAP1030/UFH



Published by:
Siemens Switzerland Ltd.
Building Technologies Division
International Headquarters
Gubelstrasse 22
6301 Zug
Switzerland
Tel. +41 41-724 24 24
www.siemens.com/buildingtechnologies