QAP22 with ARG22.2

QAP22 with ARG22.1

QAP22

Cable Temperature Sensor QAP22

Use

The cable temperature sensor is for use in ventilation and air conditioning plants to acquire the room temperature or to provide changeover from heating to cooling, or vice versa.
It is designed for integration in terminal units such as fan coil units or induction units.
The sensor can be installed either by the manufacturer of the terminal unit or on site.

Ordering and delivery

When ordering, please give name and type reference of cable temperature sensor and accessories, if required, for example: Cable temperature sensor **QAP22.**
The sensor is supplied without any mounting accessories. These must be ordered separately. Mounting accessories are supplied in sets of 20 pieces.

Equipment combinations

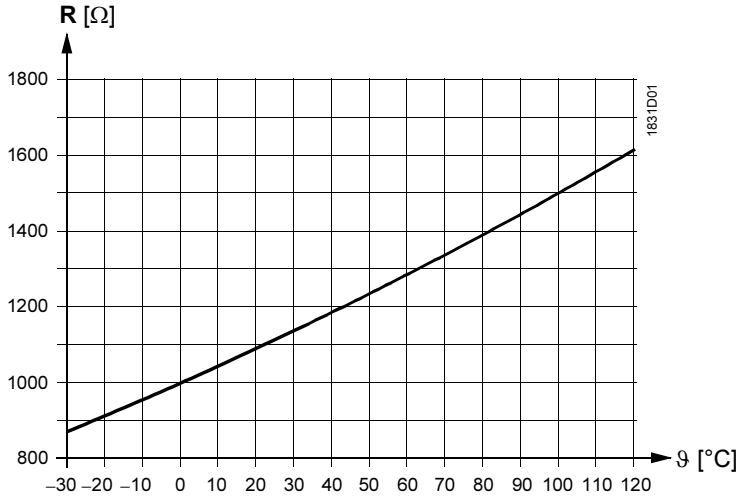
The QAP22 is suited for use with all types of systems / controllers that can handle analog, passive LG-Ni 1000 sensor signals.

Function

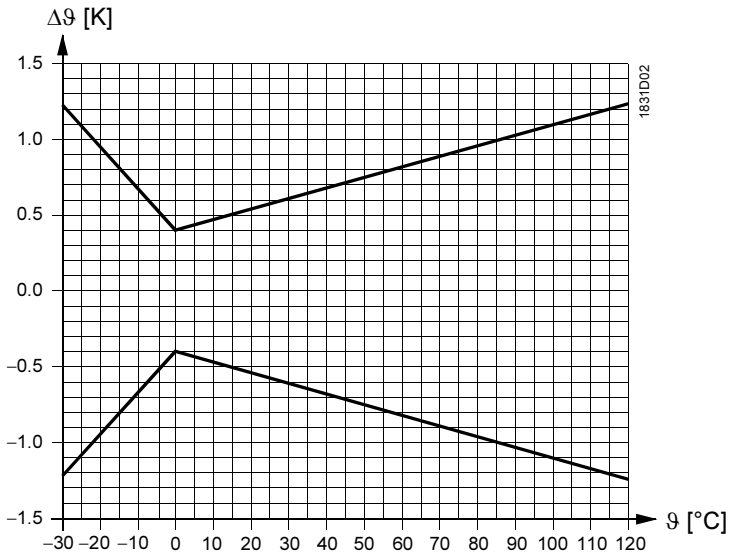
The sensor acquires the temperature via its sensing element. The resistance of the sensing element changes as a function of the ambient temperature.
The resistance value is used for further handling by a suitable controller.

Sensing element

Characteristic



Accuracy



Legend

R	Resistance in Ohm
ϑ	Temperature in degrees Celsius
Δϑ	Temperature differential in Kelvin

Mechanical design

The sensor consists of sleeve (40.5 mm in length), LG-Ni 1000 sensing element, and 2-core connecting cable. The sensing element is encapsulated in the sleeve so that it is mechanically and electrically protected. The sleeve also ensures strain relief for the connecting cable. The end of the cable carries ferrules for easy connection.

Different accessories are available for fixing the sensor.

Accessories (optional)

Name	*Type reference*
Changeover mounting kit For fitting on pipes (pipes of about 13...35 mm dia.), consisting of holding piece and cable ties (2x)	**ARG22.1**
Aluminium bar Consisting of bar with riveted holder and rubber grommet	**ARG22.2**

Engineering notes

The permissible cable lengths are dependent on the type of controller with which the sensor is used. They are specified in the Data Sheet of the relevant controller.

Mounting notes

The sensor must be able to acquire the air or medium temperature as accurately as possible. For this reason, it should be fitted in the location specified by the manufacturer of the terminal unit. If there is no such specification, it must be fitted in the return air flow of the induction or fan coil unit where it captures the temperature of the room air drawn in. It should be fitted as high as possible to minimize the floor effect.
The sensor must be protected against heat radiation from the terminal unit.

Its wires are interchangeable.

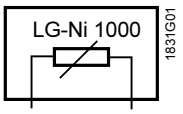
The mounting accessories are supplied with Mounting Instructions.

Technical data

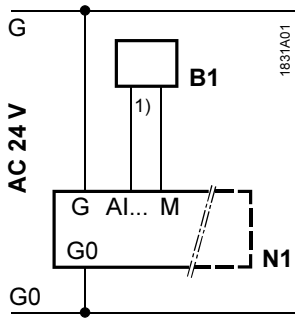
Functional data	Measuring range	−25...+95 °C
	Sensing element	LG-Ni 1000
	Time constant	
	With ARG22.1 (attached to pipe)	approx. 25 s
	With ARG22.2 in air at v = 3 m/s	<1 min
	Without protection pocket	10 s
	With protection pocket	approx. 30 s
	Measuring accuracy	refer to "Function"
	Type of measurement and output	passive
Protective data	Degree of protection	IP 65 to IEC 529
	Insulation class	III to EN 60730
Electrical connections	Connection cable	2-core, interchangeable
	Cross-sectional area	2 x 0.34 mm^2
	Length	2 m
	Perm. cable lengths	refer to "Engineering notes"
Environmental conditions	Perm. ambient temperature for cable	−25...+95 °C
	Short-time (2 h/d)	−25...+110 °C
	Perm. ambient humidity	95 % r. h.
Materials	Sensor sleeve	stainless steel 1.4571 (V4A)
	Connecting cable	PVC
	Packaging	corrugated cardboard
Weight	Incl. packaging	approx. 0.06 kg

Diagrams

Internal diagram



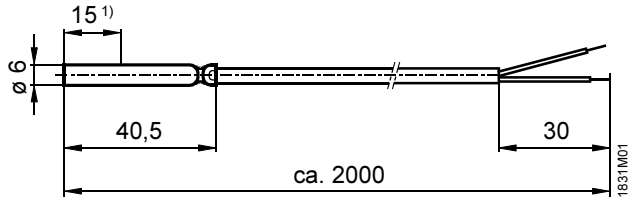
Connection terminals



1) 2-wire connection (interchangeable)
B1 Cable temperature sensor QAP22
N1 Controller RCE91...

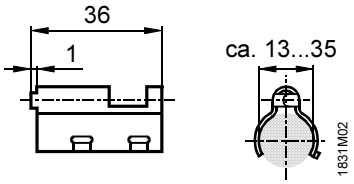
Dimensions

QAP22

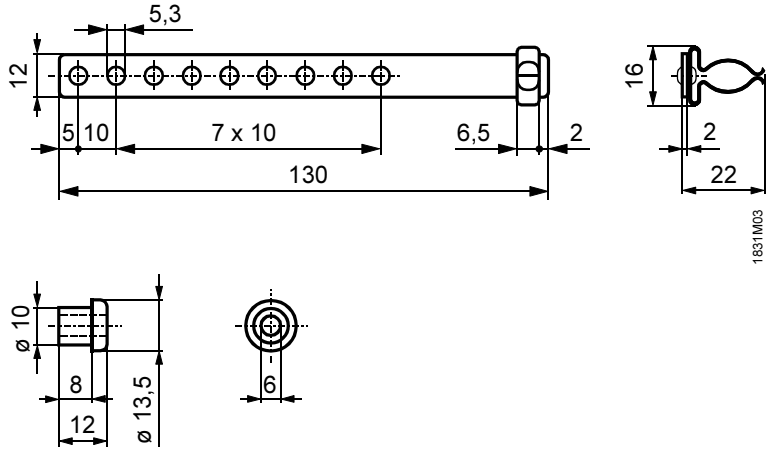


1) Active length of sensing element

ARG22.1



ARG22.2



Dimensions in mm