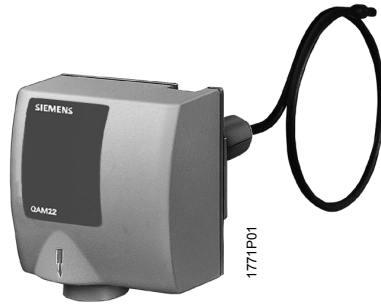




Mounting flange

1771P034



QAM22

1771P01



QAM22.2, QAM22.6

1771P02

## Duct Temperature Sensors

## QAM22...

Serie B

Sensors für acquiring the temperature in air ducts.

### Use

The QAM22... duct temperature sensor is for use in ventilation and air conditioning plants for the following purposes:

- Supply air or extract air temperature sensor
- Limiting sensor, e.g. minimum limitation of the supply air
- Shift sensor, e.g. room temperature shift as a function of the outside temperature
- Dew point temperature sensor
- Measuring sensor, e.g. for measured value indication or for use with a building automation system

### Type summary

Type reference	Sensing element length	Mounting clamps included
QAM22	0.4 m	without
QAM22.2	2.0 m	4 pieces
QAM22.6	6.0 m	6 pieces

### Ordering

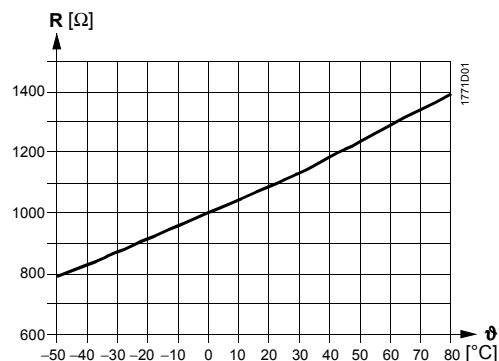
When ordering, please give name and type reference or part number, e.g.: Duct temperature sensor **QAM22**

## Function

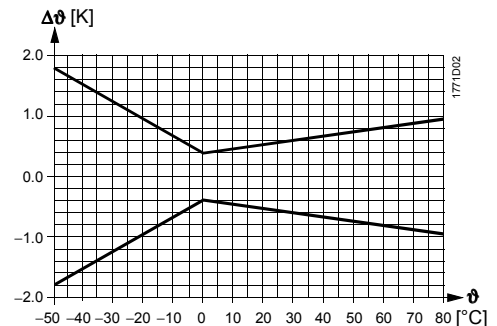
The sensor acquires the medium temperature in the solar panel with its nickel element. The resistance value of the element changes as a function of the temperature. It is delivered for further handling by a suitable controller.

### Sensing element

#### Characteristic



#### Accuracy



### Legend

R Resistance value in Ohm  
 $\vartheta$  Temperature in degrees Celsius  
 $\Delta\vartheta$  Temperature differential in Kelvin

## Mechanical design

Plastic casing with snap-on cover; fully active flexible sensing element which always measures the average temperature.

After fitting the mounting flange, the sensor can be installed in the flange in 7 different positions, so that the sensor casing is always located outside the insulation for insulation layers of up to 70 mm.

## Technical data

General sensor data	Operating range	-50...+80 °C
	Sensing element	LG-Ni 1000
	Sensing element	
	Length	refer to "Type summary"
	Min. bending radius	10 mm
	Time constant $t_{63}$	30 s at 2 m/s
	Dead time	< 1 s
Materials	Sensing element	copper, polyolefine
	Base	PA 66
	Housing cover	ASA Luran S
	Mounting flange	PA 66
	Mounting clamp	PA-GF 65
Colors	Base	silver-grey, RAL 7001
	Housing cover	light-grey, RAL 7035
Degree of protection and safety class	Degree of protection of housing	IP 42 to IEC 529
	Safety class	III to EN 60 730 (only for SELV or PELV)
Electrical connections	Screw terminals for	1 x 2.5 mm <sup>2</sup> or 2 x 1.5 mm <sup>2</sup>
	Cable entry	grommet for cable of 5.5...7.2 mm dia
	Pg 11 cable entry gland	can be fitted
	Permitted cable lengths	refer to Data Sheet of controller

Environmental conditions	Operation	to IEC 721-3-3
	Climatic conditions	class 3K5
	Temperature (housing)	-5...+50 °C
	Humidity (housing)	5...95 % r.h.
Transport	Transport	to IEC 721-3-2
	Climatic conditions	class 2K3
	Temperature	-25...+70 °C
	Humidity	<95 % r.h.
Weight	Mechanical conditions	class 2M2
	QAM22	0.16 kg
	QAM22.2	0.32 kg
	QAM22.6	0.55 kg

## Mounting notes

### Mounting location

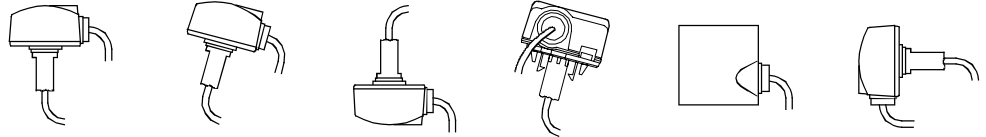
- *For supply air temperature control:* Downstream for the fan, provided the fan is located after the last air handling unit. If not, then following the last air handling unit with a minimum clearance of 0.5 m
- *For extract air temperature control:* Always upstream of the extract air fan
- *As shift sensor for supply air:* As close as possible to the air outlet into the room
- *For dew point control:* Immediately after the spray trap of the air washer

Manually bend the sensing element so that it lies diagonally across the duct so that the coils are positioned regularly across the entire duct cross section.

The sensing element must not touch the duct wall.

The sensor comes with mounting instructions.

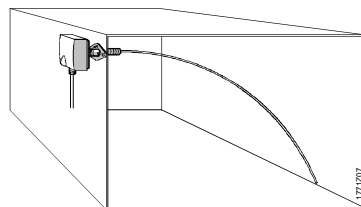
### Permitted mounting positions



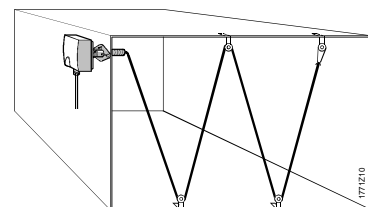
### Not permitted



### Mounting examples

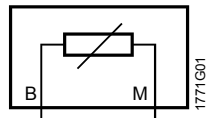


QAM22



QAM22.2, QAM22.6

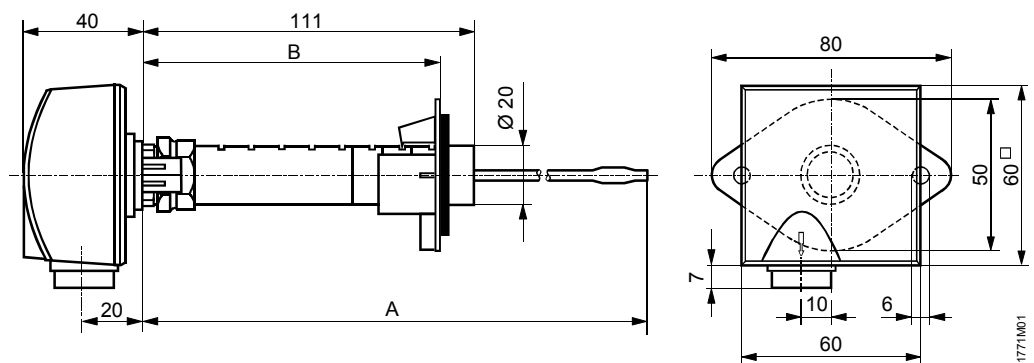
## Internal diagram



The internal diagram is identical for all types of immersion sensors covered by this Data Sheet.

The connecting wires are interchangeable.

## Dimensions (in mm)



Type	A	B	
		max.	min.
<b>QAM22</b>	400	97	37
<b>QAM22.2</b>	2000	97	37
<b>QAM22.6</b>	6000	97	37