



Window Pane Temperature Sensor

QAT22

Use

Indoor swimming pools in which the relative humidity is controlled as a function of the window temperature to prevent condensation on the walls and windows. The control is such that the window temperature is used as a compensating variable for relative humidity control.

Mechanical design

Flat, plastic housing with connecting cable. A nickel resistor is used as the sensing element. The latter together with one end of the connecting cable is embedded in the housing by means of synthetic resin. A self-adhesive aluminium foil on the lower side of the QAT22 is used to secure the sensor to the window pane. The sensor housing is white, and the adhesive foil is highly polished in order to reflect direct sunlight and as a protection against other radiated heat.

Mounting notes

Mounting location	If possible, on a north facing window; if no north facing window is available, select the window which remains in the shadow for the longest period of time. The QAT22 should be affixed to the inner pane of the window and in the vicinity of the upper edge.
Installation	The sensor is attached to the window by means of its self-adhesive foil. Prior to applying the foil, make sure that the pane is cleaned with the cloth supplied with the sensor and completely dry.

Note!

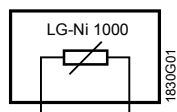
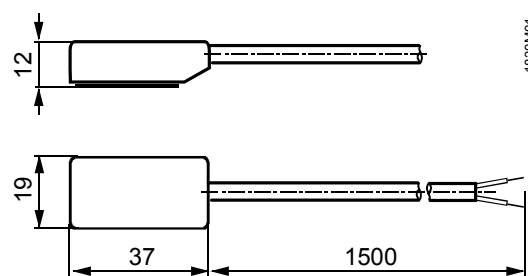
If the window pane is not cleaned or is damp, the sensor will not adhere to it for any length of time.

Mounting position

Vertically, with the connecting cable entering from above – or horizontally. In the horizontal position, the cable is to be laid such that the self-adhesive foil is subjected to as little strain as possible.

Technical data

General sensor data	Range of use	–10...+50 °C
	Sensing element	LG-Ni 1000
	Measuring accuracy at 0 °C	±0.4 K
	Time constant	30 s
	Thermal coupling	93 %
	Permissible cable lengths (2-core) for a measuring offset of max. +0.6 K	
	Copper cable 2 × 0.34 mm ²	25 m
	Copper cable 2 × 0.5 mm ²	38 m
	Copper cable 2 × 1 mm ²	75 m
	Copper cable 2 × 1.5 mm ²	110 m
Environmental conditions	Copper cable 2 × 2.5 mm ²	185 m
	Connecting cable	2-core, interchangeable, with ferrules
	Cable length	approx. 1.5 m
	Operation to	IEC 721-3-3
	Climatic conditions	class 3K5
	Temperature	–5...+55 °C
	Humidity	5... 95 % r. h.
	Transport and storage to	IEC 721-3-2
	Climatic conditions	class 2K3
	Temperature	–25...+70 °C
Materials and colors	Housing	SPA, RAL 9016 (white)
	Weight	0.03 kg

Internal diagram**Dimensions**

Dimensions in mm