SIEMENS

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1745P01

Room Temperature Sensors QAA20...

- **Passive sensors for acquiring the temperature in rooms.**
- **Range of use 0…50 °C / <85 % r. h.**

Use

In heating, ventilation and air conditioning plants for acquiring the room temperature.

Type summary

Type reference	*Sensing element*	*Range of use*	*Time constant*
QAA2010	Pt 100	0...50 °C	Approx. 7 min
QAA2012	Pt 1000	0...50 °C	Approx. 7 min
QAA2040	T1	0...50 °C	Approx. 7 min
QAA2030	NTC 10k	0...50 °C	Approx. 7 min

Ordering

When ordering, please give name and type reference, e.g.:
Room temperature sensor **QAA2010**

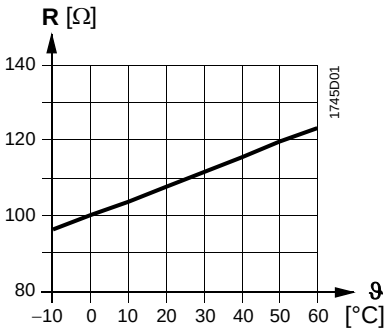
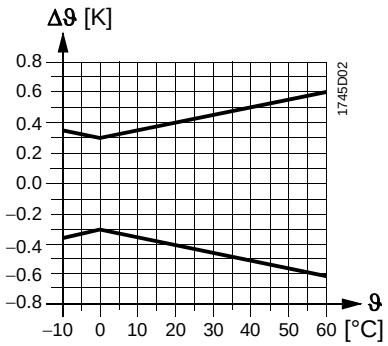
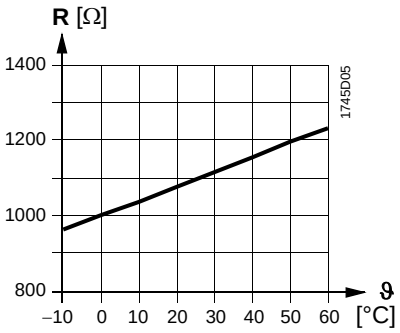
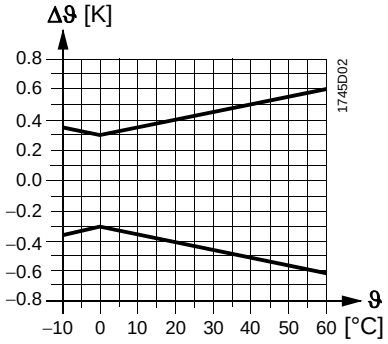
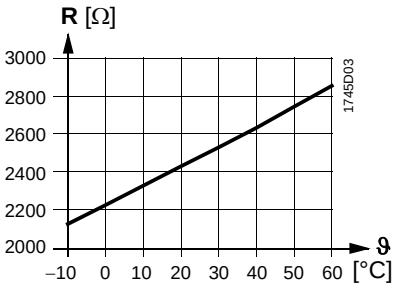
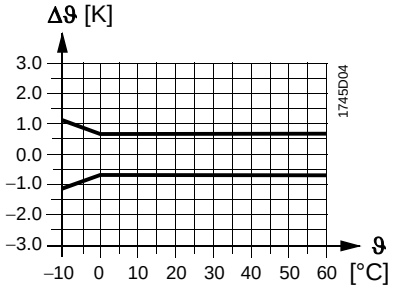
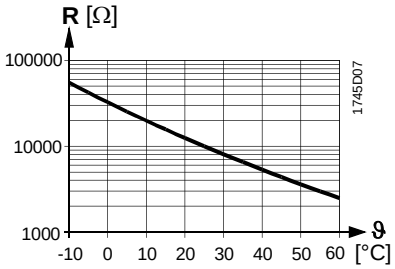
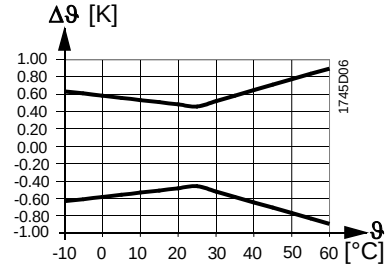
Equipment combinations

The room temperature sensors are suited for use with all types of controllers that can handle analog, passive sensor signals.

Function

The sensor acquires the room 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:
Pt 100 (class B)		
Pt 1000 (class B)		
T1 (PTC)		
NTC 10k		

Legend

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

Mechanical design

The units have been designed for wall mounting. They are suited for use with most types of commercially available recessed conduit boxes. The cables can be introduced from the rear (concealed wiring) or from below or above (surface-run wires) through knock-out openings.

The units consist of 2 major sections: Housing and base. Both snap together but can be detached again. The base carries the connection terminals.

Disposal

The major plastic components bear the material references in compliance with ISO / DIS 11469 to facilitate environment-friendly disposal.

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

Location: On an inner wall of the space to be heated or air conditioned. Not in recesses, shelves, not behind curtains, not opposite or near heat sources.
The unit must not be exposed to direct solar radiation.

The end of the conduit at the sensor must be sealed to prevent false measurements due to drafts through the conduit.

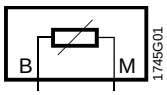
The permissible ambient conditions should be observed.

Installation Instructions are printed on the packaging.

Technical data

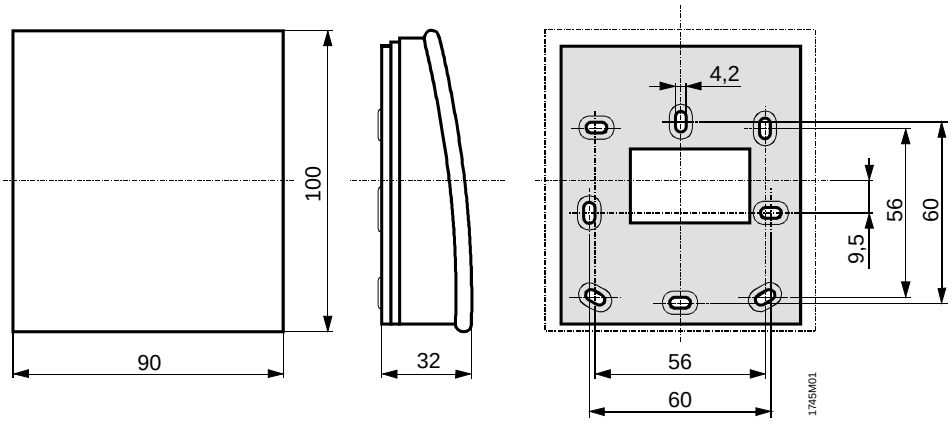
Functional data	Range of use	refer to "Type summary"
	Sensing element	refer to "Type summary"
	Time constant	refer to "Type summary"
	Measuring accuracy	refer to "Function"
	Type of measurement and output	passive
Protective data	Degree of protection	IP 30 to IEC 529
	Safety class	III to EN 60730
Electrical connections	Screw terminals for	2 x 1.5 mm^2 or 1 x 2.5 mm^2
	Perm. cable lengths	refer to "Engineering notes"
Environmental conditions	Operation	to IEC 721-3-3
	Climatic condition	class 3K5
	Temperature	0...50 °C
	Humidity	<85 % r. h.
	Transport	to IEC 721-3-2
	Climatic condition	class 2K3
	Temperature	−25...+65 °C
	Humidity	<95 % r. h.
	Mechanical environmental conditions	class 2M2
Materials and colors	Housing front	ASA+PC, NCS S 0502-G (withe)
	Bottom	ASA+PC, NCS 2801-Y43R (grey)
	Base	PC, NCS 2801-Y43R (grey)
	Packaging	corrugated cardboard
	Sensor (complete assembly)	silicone-free
Weight	Incl. packaging	Ca. 0,1 kg

Internal diagram



The internal diagram is identical for all types of room temperature sensors covered by this Data Sheet.
The connecting wires are interchangeable.

Dimensions



Dimensions in mm