

# Room Temperature Sensor

## Resistor Type: HRT-110P



### Product Type

**Resistor type temperature sensor.**  
**Range of operation -20...60 °C / <90 % r. h.**

### Application

Obtaining room and indoor spaces temperature in heating, ventilation and air conditioning plants.

Obtaining room and indoor spaces temperature in building automation systems.

### Order number description

Order number	Sensor type	Operating limits	Response time (No Air Move)
<b>HRT-110P</b>	Pt 1000	0...60 °C	~ 7 min
	Pt 1000	0...60 °C	~ 7 min
	NTC 10k	0...60 °C	~ 7 min

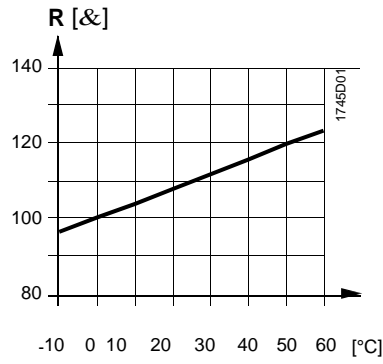
**Function**

The sensor monitors the room / space 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.

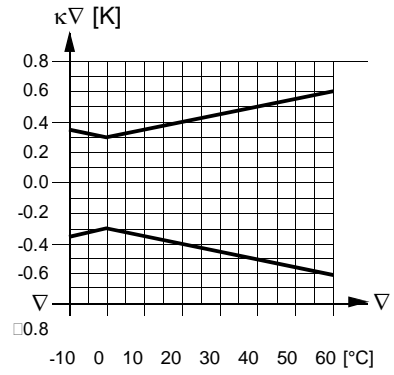
**Sensing element**

Pt 100 (class B)

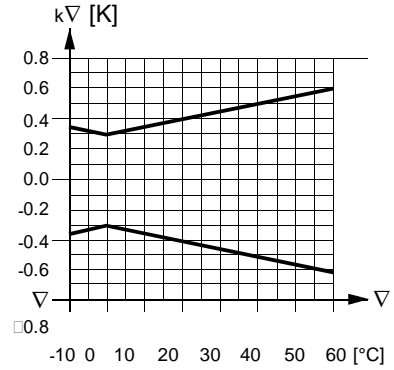
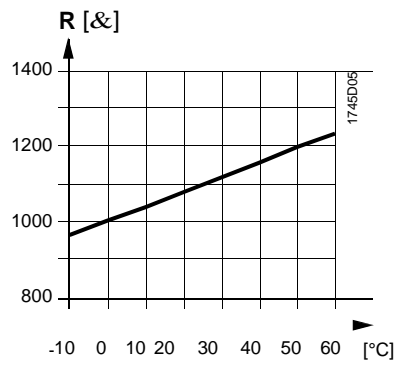
Characteristic:



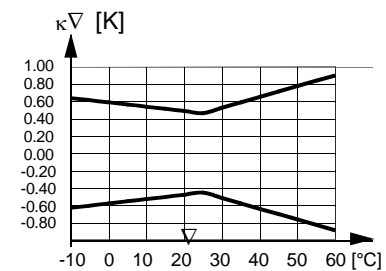
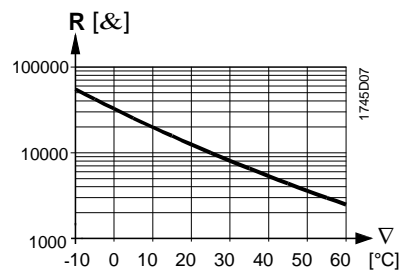
Accuracy:



Pt 1000 (class B)



NTC 10k



R Resistance in Ohm  
 Δ Temperature in degrees Celsius  
 κΔ Temperature differential in Kelv

## Mechanical design

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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

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The devices are considered electronics devices for disposal in terms of European Directive 2012/19/EU and may not be disposed of as domestic waste.

- Dispose of the device via the channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.

## Engineering notes

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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

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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.

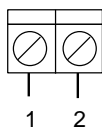
Installation Instructions are printed on the packaging.

## Technical data

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Functional data	Range of use	refer to "Page-1"
	Sensing element	refer to "Page-1"
	Time constant	refer to "Page-1"
	Measuring accuracy	refer to "Function"
	Type of measurement and output	passive
Degree of protection	Safety class	Not Defined
	Protection degree of housing	Not Defined
Electrical connections	Screw terminals for	Maximum 2 x 1.5 mm <sup>2</sup>
	Perm. Cable lengths	refer to "Engineering notes"
Environmental conditions	Operation condition	
	Temperature	0...60 °C
	Humidity	<90 % r.

Internal diagram



Dimensions (mm)

