

HOTEL SOLUTION™, HOTELGYR®NT  
**Temperature sensors**

**HSE1.1**  
**HSE1.2**



HSE1.1



HSE1.2

**NTC temperature sensors for measurement of the room air or return air temperature based on a temperature-dependent change in resistance**

**Field of application**

- Both types:
  - Room temperature measurement in conjunction with
    - temperature control unit **HTC3.1..**
    - temperature control unit **HTC3.2..**
    - temperature control unit **HTC2.2D**
    - room controller **HRC3.1**
    - room controller **HRC3.2** (indirect via HTC..)
    - room controller **HRC2.14**
- Cable temperature sensor HSE1.1:
  - return air temperature measurement in fan coil units in conjunction with
    - room controller **HRC3.1**
    - room controller **HRC2.14**

The HSE1.. temperature sensors are used for temperature measurements in conjunction with a temperature control unit or a room controller.

The HSE1.1 cable temperature sensor is used in fan-coil units to measure the return air temperature, and the HSE1.2 temperature sensor is used for measurement of the room temperature.

**Types**

Type	Name	Design
<b>HSE1.1</b>	Cable temperature sensor	1.5 m cable (2x0.5 mm diam.)
<b>HSE1.2</b>	Room temperature sensor	VIMAR housing (black)

## Ordering

When ordering, please specify the quantity, product name and type code, e.g.:

1 Room temperature sensor **HSE1.2**

## Compatibility

Name	HOTEL SOLUTION™		HOTELGYR®NT	
	Type	Data sheet	Type	Data sheet
Room controller	<b>HRC3.1</b>	N6313	HRC2.14	N6213
	HRC3.2 (indirect via HTC..)	N6314		
Room unit	<b>HTC3.1..</b>	N6319	HTC2.2D	N6218
	<b>HTC3.2..</b>	N6320		

## Design

### HSE1.1 Cable temperature sensor

The HSE1.1 cable temperature sensor consists of a 2-core PVC cable and an NTC sensor element.

At one end of the cable, the two connecting wires of the sensor element are soldered to the cable cores. The soldered joints are secured with epoxy paint. The sensor element is sheathed with red plastic tubing, which is fixed to the cable with a retaining ring.

The connecting wires at the other end of the cable are fitted with connector sleeves.

### HSE1.2 room temperature sensor

The HSE1.2 room temperature sensor comes in a black housing from the "VIMAR-idea" installation system, and has a built-in NTC sensor element and connecting terminals.

## Engineering notes

### HSE1.1 cable temperature sensor

HOTELGYR®NT: If the HSE1.1 cable temperature sensor is to be installed with a convector fan under the ceiling, the fan must run continuously. To ensure this, set Switch 3 on DIP-switch block 2 of the HRC2.14 room controller to "ON".

### HSE1.2 room temperature sensor

The HSE1.2 room temperature sensor comes in a black housing from the VIMAR-idea installation system. Owing to the facility to install this sensor together with other VIMAR units, it is important to observe the electrical installation regulations with regard to insulation.

## Mounting instructions

### HSE1.1 cable temperature sensor:

- The sensor should be mounted in the extract air duct of the fan-coil unit
- The 2-wire connecting cable is 1.5 meters long and can be extended for connection to the room controller

### HSE1.2 room temperature sensor:

- The sensor should be mounted in the center of the room, in a location which is representative of the room as a whole
- The ideal mounting height is 1.5 m (normal height of light-switches)
- The sensor must not be installed in the vicinity of direct sources of heat or cold, nor where it would be directly affected by the incoming outdoor air flow.

## Technical data

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Sensor element	NTC thermistor, 10kΩ at 25°C
Application range	10 ... 40 °C
Time constant	10 s
Measuring accuracy	+0.2 K
Ambient conditions	
Operation in accordance with	IEC 721-3-3
Environmental conditions	Class 3K5
Temperature	-5...+50 °C
Humidity	<95 % rh
Transport in accordance with	IEC 721-3-2
Environmental conditions	Class 2K3
Temperature	-25...+65 °C
Humidity	95 % rh
Mechanical conditions	Class 2M2 (applies to HSE1.2 only)
Dimensions	See dimension diagrams
Weight	
HSE1.1	0.060 kg
HSE1.2	0.022 kg

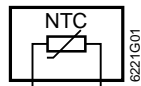
### Resistor graph

Temperature / Resistor relation of NTC 10kOhm for HSE1.1 and HSE1.2

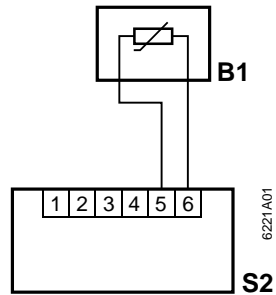
Temperature °C	Resistor Ohm
-80	7368000
-10	55330
0	32650
+10	19900
+20	12490
+25	10000
+30	8057.0
+40	5327.0
+50	3603.0
+60	2488.0
+150	185.97

## Connection diagrams

### Device connection



### Wiring diagram (Example)

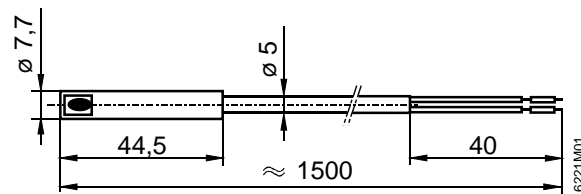


B1 HSE1.1 or HSE1.2 temperature sensor  
S2 HTC2.2D or HTC3.1/A room unit

## Dimension diagrams

Dimensions in mm

### HSE1.1



### HSE1.2

