

Temperature sensor for Smart thermostat premium

Instruction manual for the electrical
connection and installation

Item no.: 13991001



UM H104-2

1. This manual...

- ◆ ...describes the installation and electrical connection of the Temperature sensor.

1.1 How to use this manual

- ◆ Please read this manual through completely and follow all the safety instructions
- ◆ This manual is part of the product. Please store it in an accessible place
- ◆ When passing the Temperature sensor on to a third party, this manual must be passed on as well
- ◆ Please request a replacement if this manual is lost
- ◆ Damage resulting from non-compliance with this manual and the safety instructions will void the guarantee, see the detailed operating manual for the configuration. We assume no liability for any consequential damage.

1.2 Related manuals

UM D109-1
Smart thermostat premium

2. Hazard symbols

The following hazard symbols are used in this manual to indicate safety instructions:



Danger of fatal electric shock

2.1 Levels of danger and signal words



DANGER!

This hazard will lead to serious injuries or death if not avoided.



WARNING!

This hazard may result in serious injuries or death if not avoided.

2.2 Symbols used and depictions

Depiction	Description
1.	Steps to be taken
2.	
◆	Itemisation
1) or a)	Lists
	Further useful information
	Please read the respective manual

3. Glossary - definition

Offset (sensor offset)

- ◆ The temperature measured on site can vary slightly from the room temperature if the Smart thermostat premium is installed in a unfavourable position (e.g. behind a curtain or on a cool exterior wall)
- ◆ An adjustment of the measurement in the range of - 5.0 °C to + 5.0 °C can be carried out using the sensor offset

4. Included in the delivery

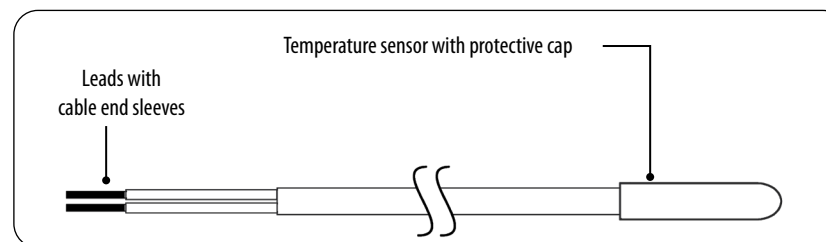
a) Temperature sensor



b) 2 x Cable end sleeves (not illustrated)

c) 1 x Instruction manual (not illustrated)

5. General view of the Temperature sensor



6. Functional description

The Temperature sensor is used to connect to the Smart thermostat premium.

The Temperature sensor is optionally available as an external temperature sensor if the internal sensor cannot reliably record the room temperature. This may be useful if:

- ◆ The Smart thermostat premium is installed in a thermally unfavourable position (e.g. on a cool exterior wall)
- ◆ Heavy loads (e.g. an electric heater) are switched on that significantly heat up the Smart thermostat premium (self-heating)

Absolutely essential

If you are using the Smart thermostat premium as a temperature limiter (e.g. for floor heating with special floor coverings), it is absolutely essential to use the Temperature sensor as an external temperature sensor.

You can set up the appropriate configuration depending on the operating mode selected for the Smart thermostat premium.



To do so, please read the instruction manual for the Smart thermostat premium.

7. Technical specifications

Protection type:	IP68
Protection classes:	II (double insulation)
Permissible operating temperature:	-40 °C to + 105 °C
Core cross section:	AWG 24 - 0.2 mm ²
Sensor diameter::	Ø 5 mm
Connecting cable length:	3 m (Ø 3.3 mm)

8. Safety instructions



The use of defective devices can lead to personal injury and damage to property (electric shocks / short circuiting).

- ◆ Never use defective or damaged devices.

8.1 Intended use

Use the Temperature sensor only to connect the Smart thermostat premium.

8.2 Improper use

Using the Temperature sensor for any other purpose than previously mentioned is not permissible.

8.3 Required expert knowledge of the installer

The electrical connection, installation and commissioning of the Temperature sensor must be carried out by a qualified electrician with basic heating control knowledge in accordance with the instructions in this manual.

9. Safety instructions for the electrical connection



Read the specifications relating to the electrical connection detailed in the instruction manual of the Smart thermostat premium.

DANGER!



There is a risk of fatal electric shock when touching electrical components.

- ◆ All connection and installation work must only be carried out in an isolated, de-energised state.
- ◆ Disconnect all phases of the mains power cable to the Smart thermostat premium and secure it to prevent any reconnection.
- ◆ Check that the system is de-energised.
- ◆ As the Temperature sensor has 230 V potential, the cabling of the sensor (e.g. with an extension) must have basic insulation (against contact).

WARNING!

Incorrect wiring may lead to short-circuits and destroy the device.

Follow the pin assignment detailed in the connection diagram.

9.1 Important information regarding the electrical connection

Maximum length of lead

The maximum length of lead to connect the Temperature sensor must not exceed 10 m.

9.2 Electrical connection

The Temperature sensor must be connected with the terminals of the Temperature sensor marked with "S" and "N".

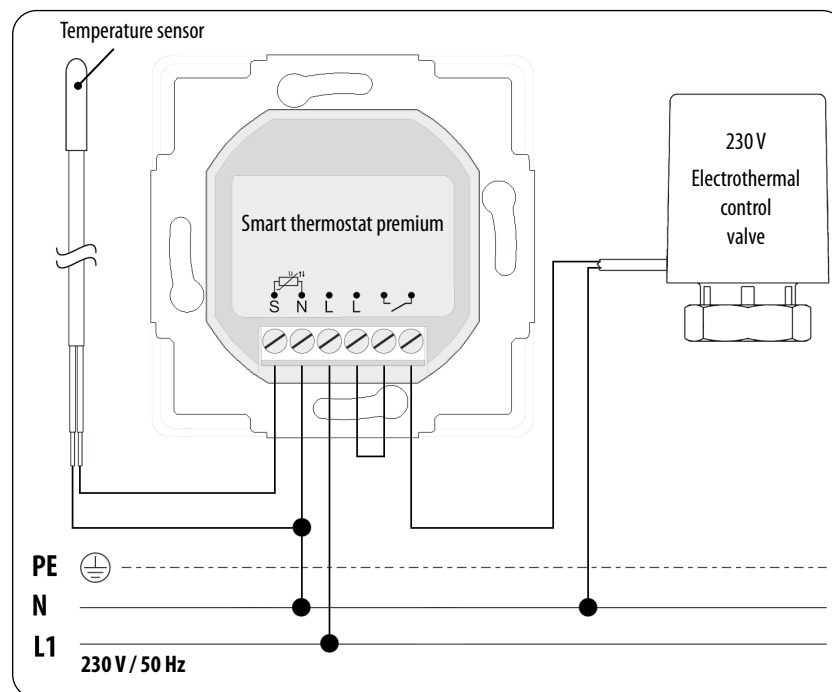
1. **Ensure that the mains power cable to the Smart thermostat premium is current-free and check that the mains power cable is current-free.**
2. **Remove the insulation on all leads down to 6 mm in length.**
3. **Connect the cable end sleeves provided to the stripped ends of the connecting cable.**
Use a suitable crimping tool (crimper).
4. **Connect the Temperature sensor in accordance with the connection diagram.**
5. **Securely lay all connecting cables right into the flush-mounted box.**
6. **The installation of the Smart thermostat premium into the flush-mounted box is carried out after the electrical connection.**



The desired operating mode can be set in menu 9.7.1 and the external temperature sensor can be activated after the connection.

9.3 Connection diagram

Smart thermostat premium with a 230 V control valve



10. Installing the Temperature sensor

Do not lay the cable of the Temperature sensor parallel to the live mains power cable if at all possible.

1. **Select a suitable installation site.**
You should position the Temperature sensor centrally between two heating conductors to achieve the best possible heat distribution in the floor.
2. **Lay the connecting cable and the Temperature sensor in a conduit.**
This makes it easier to replace the Temperature sensor at a later stage (e.g. in case of a defect).
3. **Seal the conduit with an appropriate protective sleeve.**

11. Settings on the Smart thermostat premium

You can configure the necessary settings in menu 9.7 "Installer settings".



Read the specifications in the instruction manual of the Smart thermostat premium.

Performing a sensor test

You can view the readings of the internal sensor and the Temperature sensor (as an external sensor) in menu 9.7.7 "Sensor test" to check the installation.

Setting the sensor offset

The sensor can be adjusted by an offset, see menu 9.7.2 "Sensor offset", should deviations in the temperature measurement occur (e.g. due to the length of the lead and the contact resistances). An offset setting range of between -5.0°C and $+5.0^{\circ}\text{C}$ (in 0.1°C steps) is possible.

11.1 Error messages on the Smart thermostat premium

Error 4

The Temperature sensor provides invalid readings.

- ◆ Perform a hardware reset
- ◆ Please check the cabling

12. Simplified EU Declaration of Conformity



DELTA DORE RADEMACHER GmbH hereby declares that the Temperature sensor complies with Directive 2011/65/EU (Restriction of the Use of Certain Hazardous Substances).

The full text of the declaration of conformity is available on the following website:

www.homepilot-smarthome.com

Warranty conditions

Information on the warranty conditions is enclosed with the product.