1 RF-W

Room temperature sensor for wall installation

1.1 Front view

Fig. 1: Front view

1.2 Features

• For room temperature measurement
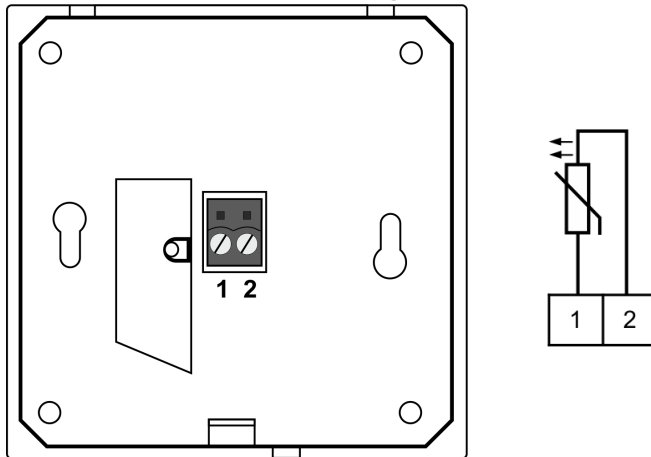• High-precision measurement

1.3 Connection diagram

Fig. 2: Connection diagram

1.4 Validity of the documentation

Date	
2019-12B	Documentation status

Any software versions not listed are special solutions for individual projects and are not described in detail in this document. This document automatically ceases to be valid if a new technical description is issued.
Manufacturer: Wurm GmbH & Co. KG Elektronische Systeme, Morsbachtalstraße 30, D-42857 Remscheid
For further information, see our website at www.wurm.de

1.5   Safety instructions

Writing conventions

WARNING ⚡	• Avoid the described hazard: Otherwise there is danger from **electric voltage** that can lead to death or **serious** bodily injury.

CAUTION ⚠	• Avoid the described hazard, otherwise there is risk of **minor** or **medium** bodily injury or property damage.

For your safety

For safe operation and to avoid personal injury and equipment damage through operator error, always read these instructions, become familiar with the device, and follow all safety instructions on the product and in this document, as well as the safety guidelines of Wurm GmbH & Co. KG Elektronische Systeme. Keep these instructions ready to hand for quick reference and pass them on with the device if the product is sold. Wurm GmbH & Co. KG Elektronische Systeme accepts no liability in case of improper use or use for other than the intended purpose.

Target group	This manual is intended for "service technician" personnel.
Intended use	Room temperature sensor RF-W is used for room temperature measurement.

WARNING ⚡	**DANGER TO LIFE FROM ELECTRIC SHOCK AND/OR FIRE!** • Switch off the power to the entire plant when carrying out installation, wiring or removal work. Otherwise a mains voltage and/or external voltage may still be present even if the control voltage is switched off. • The wiring of the device must be carried out only by qualified electricians. • Use only the correct tools for all work. • Check all wiring after connection. • Take note of the maximum loads on all connections. • Never expose the device to moisture, for example due to condensation or cleaning agents. • Take the device out of operation if it is faulty or damaged and is therefore compromising safe operation. • Do not open the device. • Do not repair the device yourself. If the device requires repairs, send it in with an exact description of the fault.

CAUTION ⚠	**FUNCTIONAL LIMITATIONS!** • Do not install this device near windows or doors, or at locations where it might be obstructed by refrigeration units or similar. • Attach the housing so that no air can flow into the housing with below-surface cables. **ELECTROMAGNETIC INTERFERENCE CAN CAUSE FAULTS!** • Always use shielded data cables and place them far away from power lines.

Wurm Infocenter		paperless info		

1.6 Installing the device

This device can be installed either in a flush-mounted box or directly on the wall surface.

DANGER TO LIFE FROM ELECTRIC SHOCK AND/OR FIRE!

- Switch off the power to the entire plant before installing. Otherwise a mains voltage and/or external voltage may still be present even if the control voltage is switched off.

WARNING

FUNCTIONAL LIMITATIONS!

- Do not install this device near windows or doors, or at locations where it might be obstructed by refrigeration units or similar.
- Attach the housing so that no air can flow into the housing with below-surface cables.

ELECTROMAGNETIC INTERFERENCE CAN CAUSE FAULTS!

- Always use shielded data cables and place them far away from power lines.

CAUTION

✓ The device must be free of voltage.
1. Use a flat-head screwdriver to press down on the catch on the bottom edge of the housing.
   ▶ The snap fastener will release.
2. Remove the housing cover.
3. Install the housing base on the wall.
4. Press the housing cover lightly against the housing base.
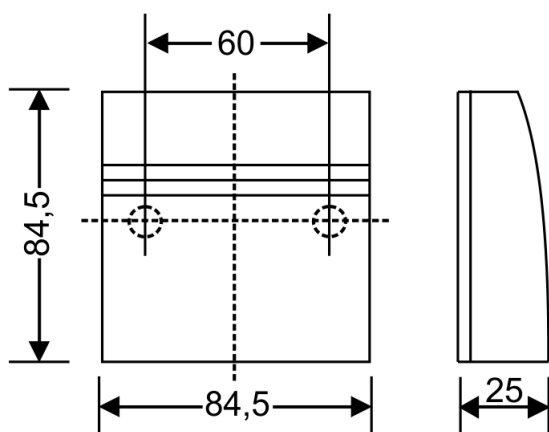   ▶ The housing cover will engage.
   ▶ You can now connect the device.

Fig. 3: Dimensions

1.7   Technical data

Ambient temperature	Operation: 0...+55°C, storage: -25...+70°C
Measurement cell	NTC resistor
Measuring precision	Better than ±0.5K at -20°C, corresponding to 6434Ω ±0.2K at 0°C, corresponding to 2492Ω ±0.5K at 15°C, corresponding to 1313Ω
Dimensions	(WxHxD) 84.5 x 84.5 x 25mm
Housing	PC, pure white
Fastening	Wall installation, 2 screws
Max. humidity	max. 85%Rh, non-condensing
Degree of protection	IP30
Weight	50g
Electrical connection	Screw terminal max. 1.5mm²
CE conformity	- 2014/30/EU (EMC Directive) CE
	RoHS II