EN

WGT

Temperature Sensor

Technical Specifications and Installation Instructions

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1. Description

The **Temperature Sensor WGT** consists of evaluation electronics and sensors. The temperature sensor can be used as a plug-in or contact sensor on the interior or exterior.

The evaluation unit transfers the temperature by radio to the control. Several **WGT** can be taught to a control. For the power supply (7...30 V DC) of the **WGT** 12 V DC can be drawn e.g. from the connector board for the control system (multifunction-input).

Functions:

- **Temperature measurement** with small sensor on a flexible cable
- **The evaluation unit** is installed in a non-visible area (e.g. in a connector socket)
- Radio-communication with the control system

Suitable for:

- WS1 Color, WS1 Style (from software version 1.51)
- WS1000 Color, WS1000 Style (from software version 1.51)
- KNX WS1000 Color, KNX WS1000 Style (from software version 1.51)
- Solexa II

1.1. Technical Data

Housing	Plastic, metal sensor sleeve
Installation	Mounting
Protection type sensor	IP 68
Dimensions of evaluation electronics	approx. 38 x 47 x 24 (W x H x D, mm)
Dimensions of sensor	Length of sensor sleeve approx. 20 mm, Ø approx. 6 mm, Cable length approx. 300 cm
Ambient humidity	Evaluation unit: max. 95% rh, avoid condensation
Operating voltage	7...30 V DC
Current	max. 35 mA
Data output	Via radio
Radio frequency	868.2 MHz
Protocol	own protocol (Elsner RF)
Measurement range	-30…+130°C
Precision at +25°C housing temperature for evaluation electronics	Sensor temperature Max. deviation from measured value ± 0°C ± 1.0°C -30…+25°C ± 1.5°C -30…+70°C ± 2.5°C -30…+130°C ± 4.0°C

The product conforms with the provisions of EU directives.

2. Installation and Commissioning

2.1. Installation notes

Installation, testing, operational start-up and troubleshooting should only be performed by an electrician.

CAUTION!
Live voltage!
There are unprotected live components inside the device.

- National legal regulations are to be followed.
- Ensure that all lines to be assembled are free of voltage and take precautions against accidental switching on.
- Do not use the device if it is damaged.
- Take the device or system out of service and secure it against unintentional use, if it can be assumed, that risk-free operation is no longer guaranteed.

The device is only to be used for its intended purpose. Any improper modification or failure to follow the operating instructions voids any and all warranty and guarantee claims.

After unpacking the device, check it immediately for possible mechanical damage. If it has been damaged in transport, inform the supplier immediately.

The device may only be used as a fixed-site installation; that means only when assembled and after conclusion of all installation and operational start-up tasks and only in the surroundings designated for it.

Elsner Elektronik is not liable for any changes in norms and standards which may occur after publication of these operating instructions.

2.2. Installation position

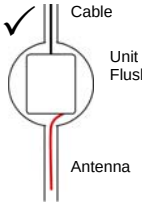
The evaluation electronics of the sensor is installed in a socket. When selecting an installation location for the measuring sensor, please ensure that the measurement results are affected as little as possible by external influences. Possible sources of interference include:

- Direct sunlight
- Drafts from windows and doors
- Warming or cooling of the building structure on which the sensor is mounted, e.g. due to sunlight, heating or cold water pipes
- Connection lines which lead from warmer or colder areas to the sensor

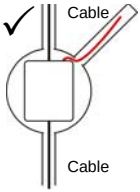
Temperature deviations caused by such sources of interference must be corrected in the control system menu, in order to achieve the indicated sensor accuracy (see Handbook Chapter Radio Connections > Status).

2.2.1. Antenna arrangement

Good for wireless communication:

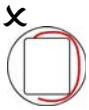


Antenna and cable in different pipes.



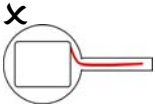
Separate tube/ pipe for antenna.

Bad for wireless communication:



Do not wrap!

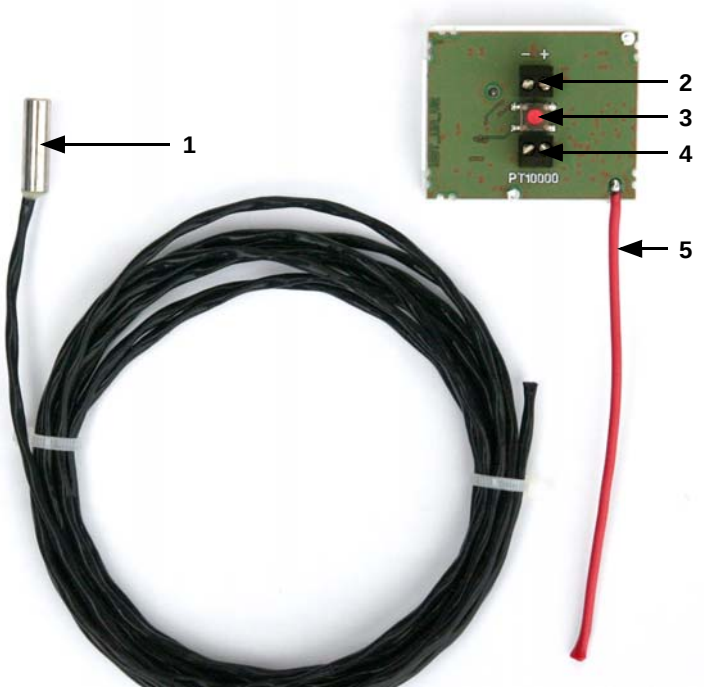
Antenna and cable are not parallel!



Do not arrange horizontally!

2.3. Assembly and Connection

2.3.1. Construction of the sensor



1 Temperature sensor
2 Connector clamp Power supply 7...30 V DC (+/-)
3 Programming button for teaching the device
4 Connector clamp Sensor
5 Wireless-antenna

2.3.2. Connection of the sensor

Connect the cable of the measuring sensor to the evaluation electronics (connection is reverse polarity protected). The cable connection may be extended up to 10 m maximum.

2.4. Establish wireless connection

1. Set the control system to teaching (follow the manual).
2. Press the programming button on **Temperature Sensor WGT**.

Observe the response from the control system ("device taught").

2.5. Notes on mounting and commissioning

The evaluation unit must not be exposed to water (rain). This could result in the electronics being damaged. A relative air humidity of 95% must not be exceeded. Avoid condensation.