



Indoor Sensor WGTH-UP

For WS1 Color/Style, (KNX) WS1000 Color/Style

Technical Specifications and Installation Instructions

Item numbers 20550, 20551



elsner[®]
elektronik

Elsner Elektronik GmbH Control and Automation Engineering

Sohlegrund 16
75395 Ostelsheim
Germany

Phone +49 (0) 70 33 / 30 945-0 info@elsner-elektronik.de
Fax +49 (0) 70 33 / 30 945-20 www.elsner-elektronik.d

Technical Service: +49 (0) 70 33 / 30 945-250

1. Description

The WGTH-UP Indoor Sensor transfers temperature and humidity to the control system via radio. Several separate WGTH-UP can be taught to one control system. The teaching is described in the chapter "Learn wireless connections" (manual of the control system).

The WGTH-UP Indoor Sensor consists of the housing, the sensor PCB/base plate and a frame. As an alternative to the supplied frame, a frame of the switch series used in the building may be used. You will additionally require a junction box (Ø 60 mm, 42 mm deep, not included in scope of delivery).

For power supply (7...30 V DC), e. g. 12 V DC can be tapped from the connection board of the control unit (multifunctional input).

2. Installation of the indoor sensor

2.1. Installation location

The interior sensor is to be installed flush to the wall surface in a junction box (Ø 60 mm, 42 mm deep). The ideal installation height is approx. 1.40 m above the ground. When selecting an installation location, 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
- Draft from ducts which lead from other rooms to the junction box in which the sensor is mounted.
- Waste heat from the control unit (when mounted above the display)
- 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 variations from such sources of interference must be corrected in the control unit menu in order to ensure the specified accuracy of the sensor (see manual chapter on Wireless connections > Status).



The indoor sensor must only be installed and used in dry, interior spaces. Avoid condensation.

2.2. Layout

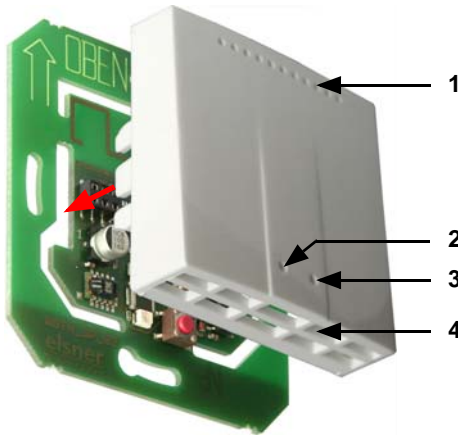


Fig. 1

- 1 Openings for air circulation
- 2 Opening programming LED
- 4 Opening programming button for configuring the device
- 5 Openings for air circulation (BOTTOM)

2.3. Rear view

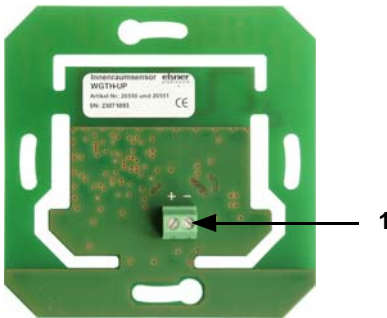


Fig. 2

- 1 Connection for power supply 7...30 V DC (+/-)

2.4. Installation

First install the junction box. Seal the inlet tubes in order to prevent drafts. Connect the power supply +/- to the connector terminals provided for this purpose on the sensor board. Then screw the board/base plate onto the socket. Ensure that the front side with the writing „TOP“ is directing out of the wall and that the arrows point towards the top.

Position the frame of the switching programme. Insert the housing of the sensor firmly onto the base plate using the catches, so that the housing and frame are fixed together.

3. Notes on mounting and commissioning

Never expose the device to water (e.g. rain) or dust. This can damage the electronics. You must not exceed a relative humidity of 95%. Avoid condensation.

4. Establish radio connection with WGTH-UP

1. Bring the control unit into learning readiness mode (note chapter *Learn wireless connection* in the manual).
2. Press the programming button at the WGTH-UP sensor



The programming button is situated behind the right lower opening of the housing. Use e. g. a paper-clip or a wire to press the button.

3. Pay attention to the report of the control unit ("Device successfully learnt").

5. 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.

6. Technical specifications WGT-UP

Housing	Plastic (partially painted)
Colours	<ul style="list-style-type: none"> • White, glossy (similar to RAL 9016 Traffic White) • Matt aluminium
Installation	Flush-mounted (installed in wall within junction box Ø 60 mm, 42 mm deep)
Protection rating	IP 20
Dimensions	Housing approx. 55 × 55 (W × H, mm) Installation depth approx. 15 mm Backplate approx. 71 × 71 (W × H, mm)
Total weight	approx. 50 g
Ambient temperature	Operating -20...+70°C, Storage -55...+90°C
Ambient air humidity	max. 95% rH, avoid condensation
Operating voltage	7...30 V DC
Current	max. 35 mA
Data output	Wireless
Wireless frequency	868.2 MHz
Protocol	Proprietary protocol (Elsner RF)
Temperature measurement range	-20...+70°C
Resolution (temperature)	0.1°C
Accuracy (temperature)	±0,6°C at -20...-10°C ±0,5°C at -10...+65°C ±0,6°C at +65...+70°C
Humidity measurement range	0...100% RH
Resolution (humidity)	0,1%
Accuracy (humidity)	±7,5% RH at 0...10% RH ±4,5% RH at 10...90% RH ±7,5% RH at 90...100% rF
Drift (humidity)	±0.5% RH per year in normal atmosphere

The product conforms with the provisions of EU directives.