homematic IP HmIPW-STHD Temperature and Humidity Sensor Instruction Manual

Wired Temperature and Humidity Sensor with Display – indoor
HmIPW-STHD | HmIPW-STHD-A

👆 **Installation and operating manual**

Contents

Package contents

1x Wired Temperature and Humidity Sensor with Display – indoor
1x Clip-on frame
1x Mounting plate
2x Screws 3.2 x 15 mm
2x Screws 3.2 x 25 mm
1x Operating manual

Information about this manual

Please read this manual carefully before operating your Homematic IP Wired component. Keep the manual so you can refer to it at a later date if you need to.
If you hand over the device to other persons for use, please hand over this manual as well.

Symbols used:

⚠ **Attention!**
This indicates a hazard.

ⓘ **Note.This** section contains important additional information!

Hazard information

⚠ Do not open the device. It does not contain any parts that need to be maintained by the user. In the event of an error, please have the device checked by an expert.

⚠ For safety and licensing reasons (CE), unauthorized change and/or modification of the device is not permitted.

⚠ Do not use the device if there are signs of damage to the housing, control elements or connecting sockets, for example. If you have any doubts, have the device checked by an expert.

⚠ The device may only be operated in dry and dust-free environment and must be protected from the effects of moisture, vibrations, solar or other methods of heat radiation, cold and mechanical loads.

⚠ The device is not a toy: do not allow children to play with it. Do not leave packaging material lying around. Plastic films/bags, pieces of polystyrene, etc. can be dangerous in the hands of a child.

⚠ We accept no liability for damage to property or personal injury caused by impoper use or failure to observe

the hazard warnings. In such cases, all warranty claims are void. We accept no liability for any consequential damage.

⚠ When connecting to the device terminals, take the permissible cables and cable cross sections into account.

⚠ The device is part of the building installation. The relevant national standards and directives must be taken into consideration during planning and set-up. The device is intended for operation within the Homematic IP Wired bus only. The Homematic IP Wired bus is a SELV power circuit. Common cable routing of power supply and the Homematic IP Wired bus in installation or junction boxes is not permitted. The required isolation for power supply of the building ins- tallation to the Homematic IP Wired bus must be observed at all times. Non-compliance with the installation instructions can cause fire or introduce other hazards.

⚠ The device may only be used for fixed installations. The device must be securely attached within a fixed installation.

⚠ Observe the installation instructions for installation in distribution systems (DIN VDE 0100-410).

ⓘ The device must only be operated within residential buildings.

ⓘ Using the device for any purpose other than that described in this operating manual does not fall within the scope of intended use and will invalidate any warranty or liability.

Function and device overview

With the Homematic IP Wired Temperature and Humidity Sensor you can regulate your floor heating time-controlled in connection with Homematic IP Floor Heating Actuators and adapt heating phases to your individual needs.
The temperature and humidity sensor serves to measure the temperature and humidity in a room. The data is cyclically transmitted to floor heating actuators in order to regulate the room temperature precisely.
Device overview:
(A) Clip-on frame
(B) Sensor (electronic unit)
(C) Display
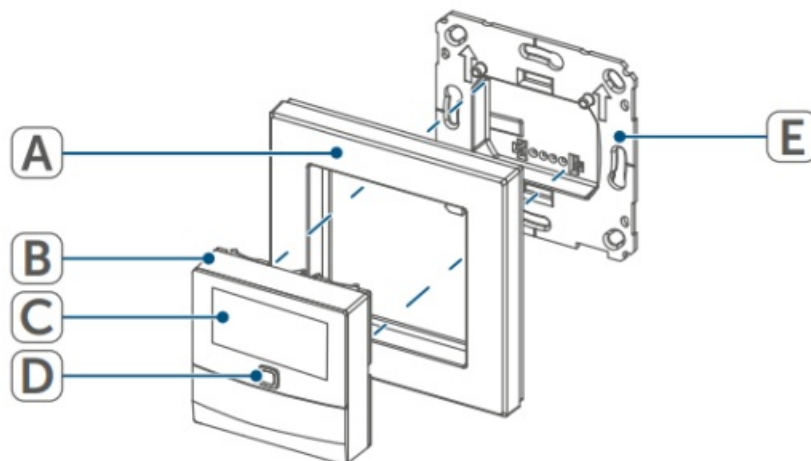(D) System button (pairing button and LED)
(E) Mounting plate

Figure 1

Displayiibersicht:

°C	Setpoint/actual temperature
%	Humidity
◻	Open window symbol
BOOST	Boost function
MANU	Manual operation
🔒	Operating lock
SET	Setpoint temperature
(ᵗ)	Radio transmission

Figure 2

General system information

This device is part of the Homematic IP smart home system and works with the Homematic IP protocol. All devices of the system can be configured comfortably and individually with the user interface of the Central Control Unit CCU3 or flexibly via the Homematic IP smartphone app in connection with the Homematic IP cloud. All available functions provided by the system in combination with other components are described in the Homematic IP Wired Installation Guide. All current technical documents and updates are provided at **www.homematic-ip.com**.

Start-up

6.1 Installation instructions

i Since the bus is powered by the Homematic IP Wired Access Point (HmIPW-DRAP), you must first set-up a Homematic IP Wired Access Point (HmIPW-DRAP) to enable power supply for the device.

i Before installation, please note the device number (SGTIN) labelled on the device as well as the exact application purpose in order to make later allocation easier. You can also find the device number on the QR code sticker supplied.

i Please note the insulation stripping length of the conductor to be connected, indicated on the device.

i Please observe the hazard information in section (see „2 Information about this manual" on page 14).

i Please note! Only to be installed by persons with the relevant electrotechnical knowledge and experience!*

Incorrect installation can endanger

- your own life,

- and the lives of other users of the electrical system.

Incorrect installation also means that you are running the risk of serious damage to property, e.g. because of a fire. You may be personally liable in the event of injuries or damage to property.

Consult an electrician!

- Specialist knowledge required for installation:

  The following specialist knowledge is particularly important during installation:

- The "5 safety rules" to be used:

  Disconnect from mains; Safeguard from switching on again; Check that system is deenergised; Earth and short circuit; Cover or cordon off neighbouring live parts;

- Select suitable tool, measuring equipment and, if necessary, personal safety equipment;

- Evaluation of measuring results;

- Selection of electrical installation material for safeguarding shut-off conditions;

- IP protection types;

- Installation of electrical installation material;

- Type of supply network (TN system, IT system, TT system) and the resulting connecting conditions (classical zero balancing, protective earthing, required additional mea- sures etc.).To integrate the tem- perature and humidity sensor into your system and enable it to communicate with other Homematic IP devices, you must pair the device to your Homematic IP Access Point first.

Permitted cable cross sections for connecting to the temperature and humidity sensor are:
Rigid cable: 0.12-0.50 mm?

ⓘ For reasons of electrical safety, only the following cables must be used for connecting to the Homematic IP wired bus:

- Telephone cable J-Y(ST)Y with 2 x2x0.8 (=0.5mm? or4x2x0.8(=0.5 mm?), shielded, TP

- Ethernet installation cable S/ FUTP, Type Cat5e or higher with 2x2x AWG22 (= 0.34 mm?) or 4 x2x AWG22 (= 0.34 mm?), shielded, TP

ⓘ The shield (continuity wire) must be connected to "-" (=GND) at the bus connection of the Wired Access Point (HmIPW-DRAP). The shield may not be connected to the temperature and humidity sensor.

6.2 Installation

ⓘ The bus is powered by the Home-matic IP Wired Access Point (HmIPW-DRAP). For further information, please refer to the operating manual of the corresponding Wired Access Points.

ⓘ To facilitate connection to the terminals, the green push-in terminal can be removed from the device. To do this, release the mounting plate, press the latch on the back next to the lock symbol and slide the clamp out of the mounting plate to the side.
For the installation, please proceed as follows:

- Connect the Homematic IP wired bus to the bus connecting terminals (F). To connect and loosen the single

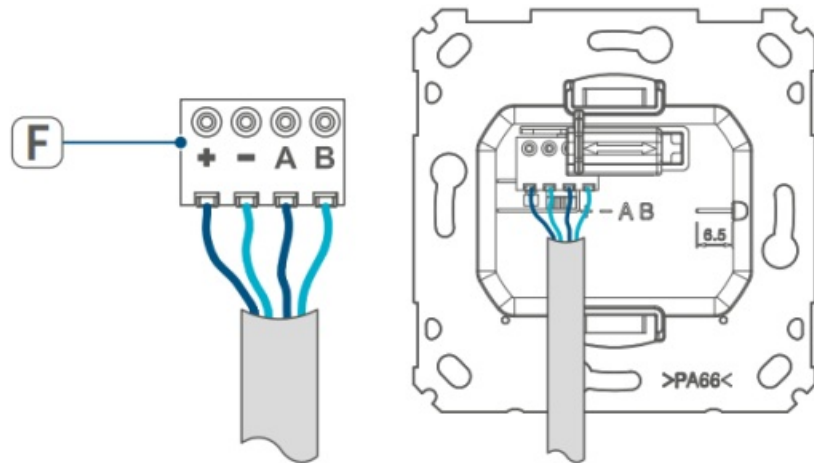wires, press the orange clamp using a small screwdriver.

Figure 3

- Place the mounting plate (E) in the flush-mounted box and fasten it to the flush-mounted box using the screws supplied.
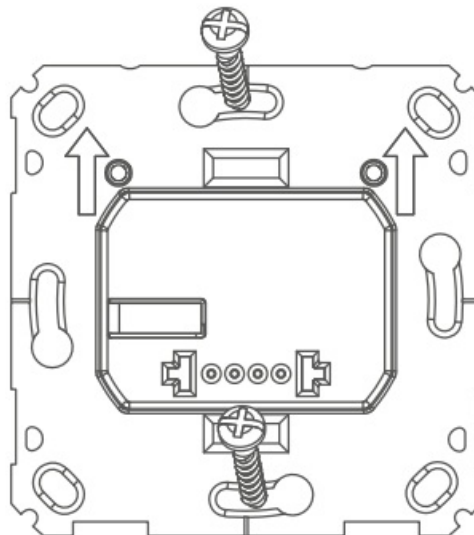

Figure 4

- Place the frame of your existing switch series or the supplied clipon frame (A) to the mounting plate.
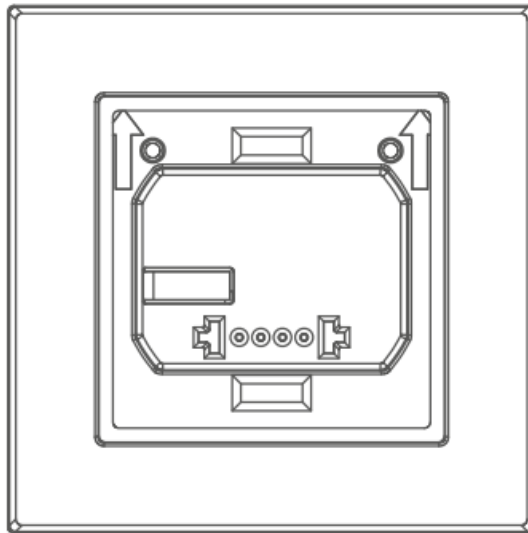
Figure 5

- Place the electronic unit (B) of the temperature and humidity sensor into the frame by fully snapping the connection pins (G) into the ap- propriate bracket of the mounting plate.
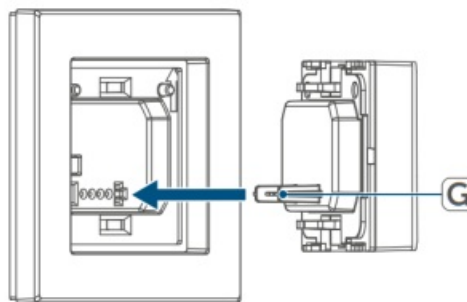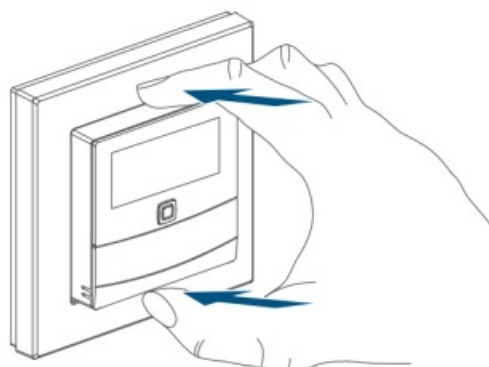

Figure 6

Figure 7

6.3 Installation in multiple combinations

You can mount the temperature and humidity sensor with the attachment frame (A) provided or use it with frames of other manufacturers as well as integrate the electronic unit (B) into a multi-gang frame. For mounting with multiple combinations, make sure that the mounting plate of the temperature and humidity sensor is seamlessly aligned to the already fixed mounting plate/retaining ring.
The frames of the following manufacturers can be used:

Manufacturer	Frame
Berker	S.1,B.1,B.3, B.7 Glas
Busch-Jaeger	carat*, future linear?*, solo*, Busch-axcent*, Busch-dynasty*, balance SI
ELSO	Joy
GIRA	System 55, Standard 55, E2, E22, Event, Esprit
merten	1-M, Atelier-M, M- Smart, M-Arc, M-Star, M-Plan
JUNG	A 500, _AS 500, A plus, A creation
Kopp	Athenis

*with 55 mm intermediate frames of the manufacturer

6.4 Pairing

[i] Please read this entire section before starting the pair procedure.

[i] First set up your Homematic IP Wired Access Point via the Homematic IP app to enable operation of other Homematic IP devices within your system. For further information, please refer to the operating manual of the Wired Access Point.

[i] Please refer to the Homematic IP Wired System Manual for detailed information on setup and control options. To integrate the temperature and humidity sensor into your system and enable it to communicate with other devices, you must pair it first.

To pair the temperature and humiditiy sensor, please proceed as follows:

- Open the Homematic IP app on your smartphone.
- Select the menu item "Pair device".
- After the power supply has been established, the pair mode of the temperature and humidity sensor is active for 3 minutes.
- Turn over the sensor.
- Remove the insulation strip from the battery compartment. Pairing mode remains activated for 3 minutes.

[i] You can manually start the pair mode for another 3 minutes by pressing the system button (D) shortly.
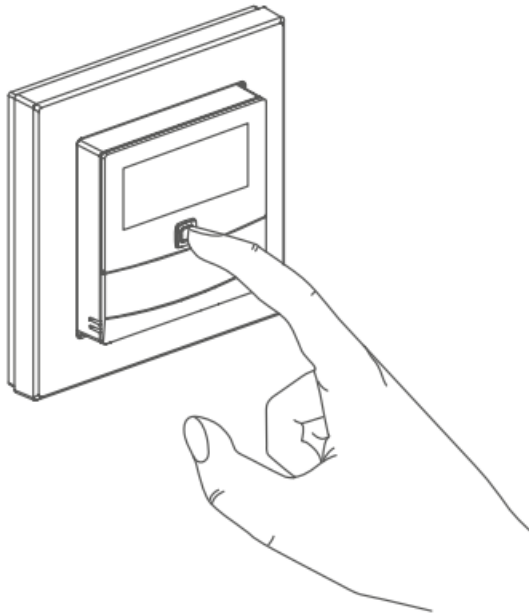
Figure 8

Your device will automatically appear in the Homematic IP App.

- To confirm, please enter the last four digits of the device number (SGTIN) in your app or scan the QR code. Therefore, please see the sticker supplied or attached to the device.
- Please wait until pairing is completed.
- If pairing was successful, the LED lights up green. The device is now ready for use.
- If the LED lights up red, please try again.
- Please select in which application you want to use the device.
- Allocate the device to a room and give the device a name.

ⓘ If you are already using Homematic IP devices in your smart home system or if you want to combine your Homematic IP Wired devices with wireless Homematic IP components, you can also connect the Homematic IP Wired devices to an (installed) Access Point. Therefore, connect the Homematic IP Wired Access Point to the (installed) Homematic IP Access Point, as described in the user manual. Afterwards, please proceed as described above to connect the temperature and humidity sensor.

Error codes and flashing sequences

Flashing code	Meaning	Solution
Antenna symbol flashing ($((\cdot))$)	Communication error to CCU/ floor heating actu-ator	Check the connection to the CCU/floor heating actuator.
Humidity symbol flashing (%)	Humidity limit (60 %) in the room is exceeded	Ventilate the room and switch from cooling to heating mode, if required
Lock symbol (🔒)	Operating lock activated	Deactivate the operating lock via the app or the menu.
Short orange flashing	Data transfer	Wait until the transmission is completed.
1x long green lighting	Operation confirmed	You can continue operation.
1x long red lighting	Operation failed	Please try again.
Short orange flashing (every 10 seconds)	Pair mode active	Please enter the last four numbers of the device serial number for confirmation (see ‚6.4 Pairing" on page 19).
6x long red flashing	Device defective	Please see your app for error message or contact your retailer.
1x orange and 1 x green lighting (after establishing power supply)	Test display	After the test display has stopped, you can continue.

Restoring factory settings

The factory settings of the device can be restored. If you do this, you will lose all your settings.
To restore the factory settings of the temperature and humidity sensor please proceed as follows:

- Press and hold down the system button (D) for 4 seconds until the LED (D) quickly starts flashing orange (=see figure).
- Release the system button again.
- Press and hold down the system button again for 4 seconds, until the LED lights up green.
- Release the system button to finish the procedure.

The device will perform a restart.

Maintenance and cleaning

ℹ️ The device does not require you to carry out any maintenance other than replacing the battery when necessary. Enlist the help of an expert to carry out any maintenance or repairs.
Clean the device using a soft, lint-free cloth that is clean and dry. You may dampen the cloth a little with lukewarm water in order to remove more stubborn marks. Do not use any detergents containing solvents, as they could corrode the plastic housing and label.

Disposal

Instructions for disposal
This symbol means that the device must not be disposed of as household waste, general waste, or in a yellow bin or a yellow sack.
For the protection of health and the environment, you must take the product and all electronic parts included in the scope of delivery to a municipal collection point for old electrical and electronic equipment to ensure their correct disposal. Distributors of elec trical and electronic equipment must also take back obsolete equipment free of charge.
By disposing of it separately, you are making a valuable contribution to the reuse, recycling and other methods of recovery of old devices.
Please also remember that you, the end user, are responsible for deleting personal data on any old electrical and electronic equipment before disposing of it.

Information about conformity

$C\epsilon$ The CE mark is a free trademark that is intended exclusively for the authorities and does not imply any assurance of properties.

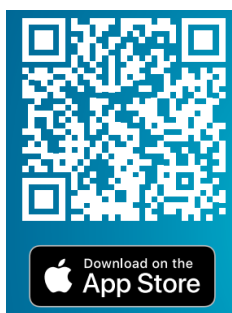$\boxed{i}$ For technical support, please contact your retailer.

Technical specifications

Device short name:	HmIPW-STHD, HmIPW-STHD-A
Supply voltage:	24 VDC, +5 % -20 %, SELV
Current consumption:	20 mA max.
Cable type and cross section:	rigid cable 0.12-0.50 mm?
Installation:	only in normal commercial switch boxes (device boxes) in accordance with DIN 49073-1.
Degree of protection:	DIN 49073-1.
Protection class:	1P20
Ambient temperature:	|||
Dimensions (W x H x D):	0to50°C
Without frame:	55 x 55 x 42 mm
Including frame:	86 x 86 x 42 mm
Weight:	8449
Method of operation:	Type 1
Degree of pollution:	2
Software class:	Class A
Withstand voltage:	330V
Temperature glow wire test:	850°C
Temperature ball pressure test:	125°C
PTI value of housing material:	|||b with 100 < CTI < 175

Subject to technical changes.

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HmIPW-STHD, HmIPW-STHD-A, HmIPW-STHD Temperature and Humidity Sensor, HmIPW-S THD, Temperature and Humidity Sensor, Humidity Sensor, Sensor

References

- **User Manual**