![Meltem logo — VENTILATION & HEAT RECOVERY] CE

INSTALLATION INSTRUCTIONS AND USER GUIDE

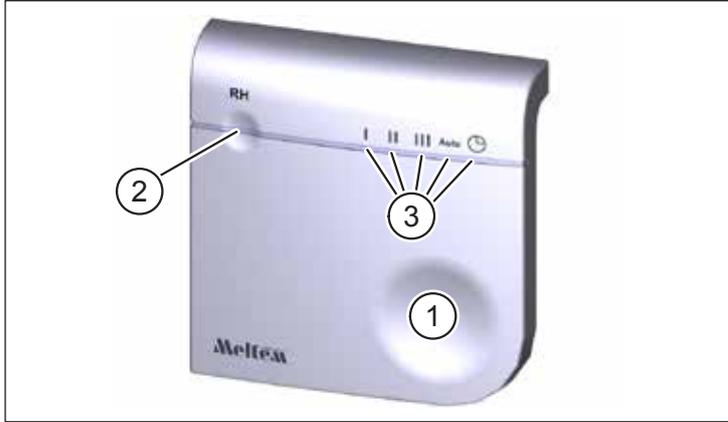Part no. 744011EN, Week 47/2019 EN

External wireless humidity sensor M-WRG-II FSF

Fig. 1: External wireless humidity sensor

Item in Fig. 1	Description
1	Control button (touch-sensitive)
2	Status LED
3	Mode LEDs (5x)

1 Introduction

1.1 Notes on these instructions

⚠️ 📖 These instructions contain important information that should be followed when installing and using the wireless humidity sensor.

► Read all the instructions carefully to avoid possible risks and mistakes.

► These instructions are part of the product. Keep the instructions in a safe place for future reference.

NOTICE

► When operating the ventilation unit, also follow the operating instructions that were supplied with your unit.

1.2 Description

The wireless humidity sensor is used for wireless operation of ventilation units from the M-WRG-II and M-WRG series constructed from 2020 onwards (excluding bus unit types). It can also be used to determine the humidity level at an installation location selected by you, provided that it is within the wireless range. The "Humidity control" and "Automatic mode" ventilation programs use the transmitted values to automatically adjust the unit's air flow to the required ventilation level. One wireless humidity sensor may be linked to each ventilation unit. If the ventilation unit has an internal humidity sensor, it will be automatically disabled. The wireless humidity sensor incorporates the humidity control function into ventilation units without an internal humidity sensor. The control button (item 1 in Fig. 1) is used to activate five different ventilation levels/programs. The current selection is indicated by one of the five green mode LEDs (item 3 in Fig. 1). The multi-coloured status LED (item 2 in Fig. 1) signals the wireless sensor and ventilation unit operating statuses. If the relative room air humidity exceeds 60 % RH (factory setting) in the "Humidity control" or "Automatic mode" ventilation program, the ventilation level is increased continuously up to max. 60 m³/h until the humidity in the room drops back below 60 % RH.

The wireless sensor is fixed to the wall with the dowels and screws provided (see section 4.1).

The optional M-WRG-FBH wireless remote control, part no. 5478-10, can be used to program the functions of the wireless sensor. You will find more details in the "User guide for wireless remote control M-WRG-FBH". The wireless humidity sensor can also be used in parallel with the M-WRG-FBH wireless remote control, M-WRG-FT

4-way wireless pushbutton switch and M-WRG-II FSC wireless CO_2 sensor and in conjunction with the U² installation version and all M-WRG-II and M-WRG covers.

1.3 Target group

These instructions are intended for users of the wireless humidity sensor. No special prior knowledge is needed.

1.4 EU declaration of conformity

The wireless humidity sensor described below
   Type: M-WRG-II FSF
   Part number: 733010
manufactured by
   Meltem Wärmerückgewinnung GmbH & Co. KG
   Am Hartholz 4
   82239 Alling
conforms to the regulations and standards listed in the EU Declaration of Conformity.

1.5 Technical data

Product characteristics	
Dimensions (W x H x D)	100 mm x 100 mm x 25 mm
Weight	approx. 125 g
Colour	white, similar to RAL 9010
Material of the plastic parts	ABS
Ambient conditions	
Ambient temperature during operation	0 °C to 40 °C
Ambient temperature for storage and shipping	-20 °C to 40 °C
Relative humidity	0 % to 90 %, non-condensing
IP code (IEC 60529)	IP30
Battery	
Size	AA, Mignon
Lifetime	approx. 2 years
Wireless connection	
Communication frequency	868.3 MHz
Output power	at least 0 dBm
Data logging	
Measurement range	0 % to 100 % RH
Measurement accuracy at 11 % to 89 % RH	3 % RH
Measurement resolution	1 % RH
Measurement stability over 5 years	1.5 % RH

1.6 Environmentally-friendly disposal

🗑️ The components of the wireless humidity sensor must not be disposed of in the residual waste bin.

► In Germany, metal and plastic components should be disposed of at the local recycling centre. The national regulations in other EU states should also be followed.

► In Germany, electrical components should be disposed of in accordance with the Electrical and Electronic Equipment Act (ElektroG). In other EU states, the national implementation of the Waste Electrical and Electronic Equipment Directive 2012/19/EU (WEEE) should be followed.

► In Germany, rechargeable batteries and accumulators should be disposed of in accordance with the Batteries Act (BattG). The national implementation of the Battery Directive 2006/66/EC should be followed in other EU states.

► The regulations and statutory requirements in your own country concerning disposal should also be followed.

1.7 Explanation of the symbols used

► This symbol indicates an action to be taken.

— This symbol indicates a list.

2 Safety

The wireless humidity sensor is approved only for use in dry interior areas and must be protected against humidity and moisture to prevent short-circuits.

2.1 Notes on operation

This unit may be used by children from 8 years old and by persons of restricted physical, sensory or mental abilities or persons lacking

experience and knowledge if they are supervised or have been instructed in how to use the unit safely and understand the associated hazards. Do not allow children to play with the unit. Cleaning and user maintenance must not be carried out by children unless they are supervised.

2.2 Intended use

The wireless humidity sensor must only be used to operate M-WRG-II and M-WRG ventilation units. Any different or more extensive usage will be regarded as contrary to the intended use. The intended use also includes compliance with all the notes in these instructions.

For any use contrary to the intended use, Meltem Wärmerückgewinnung GmbH & Co. KG shall accept no liability for any damage that may occur and offers no warranty that the components will work perfectly and correctly.

3 Items supplied

— M-WRG-II FSF wireless humidity sensor
— 2x 1.5 V battery, size AA, Mignon
— 2x screws and dowels

4 Installation and set-up

NOTICE

Never install the wireless humidity sensor in a metal enclosure, otherwise wireless communication between the wireless sensor and ventilation unit will not be possible.

4.1 Fixing the housing to the wall

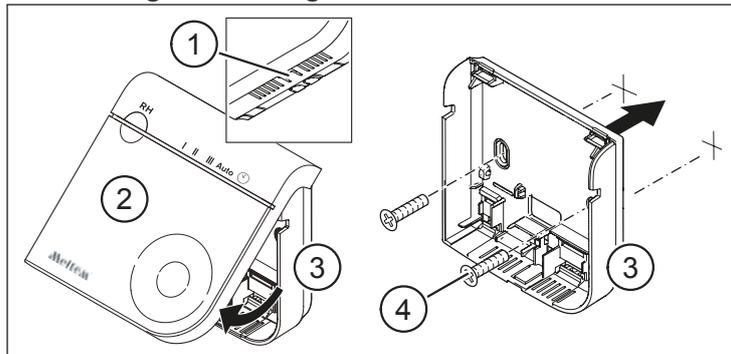

Fig. 2: Fixing the housing to the wall

► Press the tab (item 1 in Fig. 2) on the underside of the housing (item 3 in Fig. 2) and pull the cover (item 2 in Fig. 2) away from the housing.
► Use the screws (item 4 in Fig. 2) and dowels provided to fix the housing in the desired position.
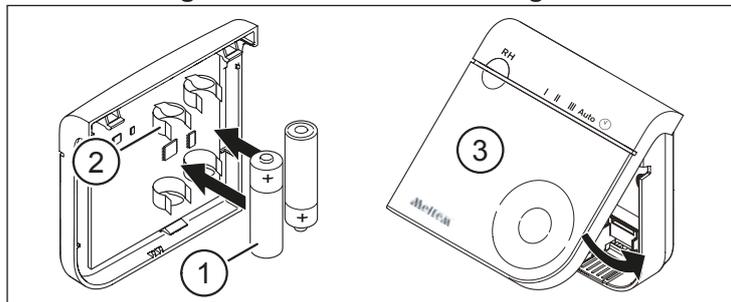
4.2 Inserting the batteries and attaching the cover

Fig. 3: Inserting the batteries and attaching the cover

► Insert the batteries (item 1 in Fig. 3) in the battery holders (item 2 in Fig. 3) on the back of the cover.
All the LEDs light up for 3 seconds when the batteries are inserted. The wireless sensor then switches automatically to connection mode and the status LED flashes green-red.

NOTICE

Make sure that the battery polarity is correct. A sticker beside the battery holders shows the correct battery orientation.

► Insert the tabs on the cover into the cutouts in the housing.
► Swivel the cover down until you hear it snap into place in the housing (see Fig. 3).

4.3 Connecting to the ventilation unit for the first time

► Switch the ventilation unit on. It remains in connection mode for 2 minutes.

NOTICE

When it is supplied, the wireless sensor is automatically set to connection mode (status LED flashes green-red).

► Tap the control button (item 1 in Fig. 1). The ventilation unit gives an audible signal when the connection is established and the status LED flashes green.

5 Operation

5.1 Checking the status / Selecting the ventilation level/program

► Tap the control button (item 1 in Fig. 1) to check the current status. This is signalled by the status LED (item 2 in Fig. 1) and the mode LEDs (item 3 in Fig. 1).
► Tap the control button again while the status and mode LEDs are lit to switch between the different ventilation levels/programs. Your current selection is indicated by the mode LED beneath the **I**, **II**, **III**, **Auto** or ⏲ symbol.

5.2 Status LED

The status LED (item 2 in Fig. 1) provides the following feedback when the control button (item 1 in Fig. 1) is pressed:

LED colour	LED flashes	Description
Green	1x	The ventilation unit has received and is carrying out the command
Red	1x	No wireless connection to the ventilation unit
Red	2x	The air filters in the ventilation unit need to be changed
Red	3x	Error message from the ventilation unit
Red	4x	The wireless sensor is faulty
Red	5x	The batteries need to be changed

5.3 Mode LEDs

The green mode LEDs (item 3 in Fig. 1) indicate which ventilation level or ventilation program is selected.

Mode LED	Ventilation levels/programs (factory default settings)	
	M-WRG-II	**M-WRG**
I	Vent. level **I**: 10 / 20* m^3/h	Vent. level **I**: 15 / 20* m^3/h
II	Vent. level **II**: 30 / 40* m^3/h	Vent. level **II**: 30 / 40* m^3/h
III	Vent. level **III**: 50 / 60* m^3/h	Vent. level **III**: 60 m^3/h
Auto	Humidity control or automatic mode (only for units with CO_2 sensor)	
⏲	Intensive ventilation 100 m^3/h for 15 min	

* Options M-WRG-II O/LFS, M-WRG-II O/MVS or M-WRG O/LFS, M-WRG O/MVS change the button assignment

5.4 Connecting to the ventilation unit again

► Switch the ventilation unit on. It remains in connection mode for 2 minutes.
► Tap the control button (item 1 in Fig. 1) several times until the green **Auto** mode LED lights up.
► Hold down the control button until the status LED (item 2 in Fig. 1) flashes white.
► Release the control button. The wireless sensor switches to connection mode and the status LED flashes green-red.
► Tap the control button again. The ventilation unit gives an audible signal when the connection is established and the status LED flashes green.

6 Changing the batteries

► The illustration in section 4 shows how to change the batteries.

7 Cleaning

Wipe the outer surfaces from time to time with a soft, damp cloth. Use mild soapy water. Never use acidic, corrosive or abrasive cleaning agents.