C16 WiFi / Basic

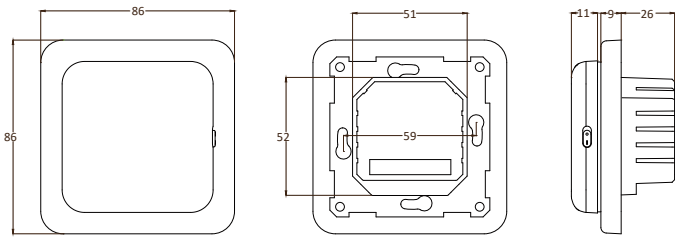## (WiFi) thermostat for electric floor heating

1. Introduction

Study this manual carefully and keep it with the warranty documents. Connection must be carried out by a qualified fitter in accordance with local regulations. Before mounting or dismounting the thermostat, always switch off the electricity in the meter cupboard. This thermostat can be mounted in a single flush-mounting box 50 mm deep in accordance with standard DIN formats. These regulations describe the C16 Basic and the C16 WiFi version.
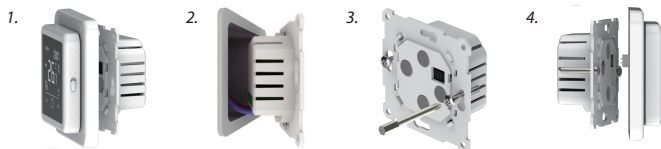
2. Technical Specifications

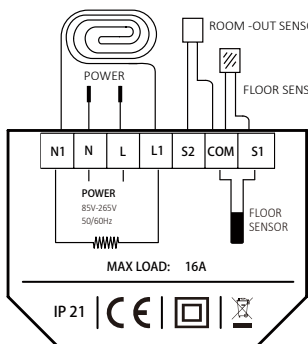|	
Voltage	: 230V - 50/60 Hz
Max. load	: Max. 16 Amp / 230V
Standby voltage	: C16 Basic: 1W / C16 WiFi: 2W
Temp. range	: +5/+40ºC
Housing	: IP21
Standard colour	: Polar white (RAL 9010)
Sensor	: Floor sensor and build in Air sensor
Warranty	: 2 years manufacturer's warranty
Approvals	: FI / CE
Manufacturer	: MHGroup B.V. Netherlands

3. Assembly

1. Press with your fingers at the top of the display and pull it towards you.
2. Connect the thermostat according to the connection diagram (point 4).
3. Mount the thermostat on the flush-mounting box.
4. Put the frame on it and click the display back into place.

4. Wiring diagram

Connection must be carried out by a qualified fitter in accordance with local regulations. Before mounting or dismounting the thermostat, always switch off the electricity in the meter cupboard.

Recommendation: Keep the maximum load around 90% of the 16A to extend the service life.

FLOOR SENSOR : Floor sensor connection
ROOM OUT SENSOR: External room sensor connection

N1   Heating cable connection wire*
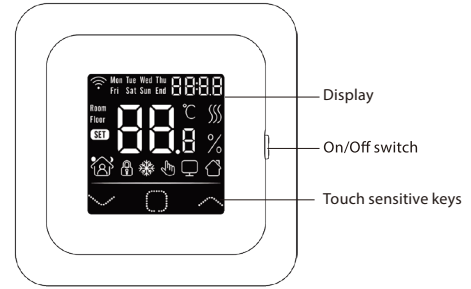L1   Heating cable connection wire*

N   Power supply (Neutral)
L   Power supply (Phase)

EARTH : Connect the earth of the heating cable and the earth of the power supply outside the thermostat using the supplied terminal block.

* Order L1 or N1 does not apply.

5. Explanation of symbols

When the thermostat is connected, turn the on/off switch down to turn the thermostat on. The thermostat is operated by means of the 3 touch-sensitive buttons on the bottom of the screen and has a series of fixed symbols in the display.
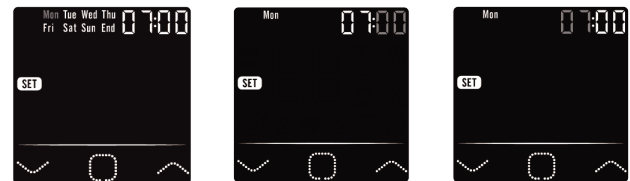

- Display
- On/Off switch
- Touch sensitive keys

	Confirm (touch-sensitive key)		Current temperature
	Down (touch-sensitive key)		Heating
	Up (touch-sensitive key)		Percentage
	WiFi indicator		Current period (Smart Mode)
	Hello		Key lock
	Clock		Frost protection mode
Room	Room temperature		Manual mode
Floor	Floor temperature		Office
SET	Set up		House

6. Startup menu

At the first startup, the following settings need to be entered. With the WiFi version it will be updated automatically after connection.

Clock (CLK)

Choose Day   Choose Hour   Choose Minutes

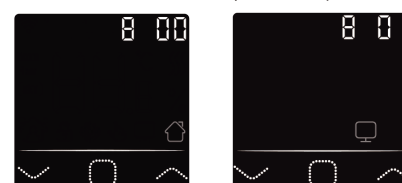**Sensor selection** (5 options)

1. Floor sensor
2. Room sensor
3. Room sensor with floor sensor limit
4. External room sensor
5. External room sensor with floor sensor limit

3. Limit floor temperature

For tiled floors up to 35 degrees. PLEASE NOTE: For wooden floors set to a maximum of 28 degrees!

4. Home or office situation (00 = Home, 01 = Office)

7. WiFi Connection (C16 WiFi version only)

Step 1: Download the App via the QR code or by searching for "Warmme" in the App Store or Google Play store.

Step 2: Start the App and create or log in with an existing account.

Step 3: On thermostat: Simultaneously press ▽ and △ for 5 seconds and check if the WiFi symbol on the thermostat is flashing.

Step 4: Click on "Add device" at the bottom of the screen.

Step 5: Fill in the WiFi network password on the smartphone and click "Confirm".

Step 6: Click "Done" after the App has connected to the thermostat and the connection is complete.

Step 7: You can check, adjust or set the current temperature, turn the thermostat on or off and perform other operations from the main screen on your smartphone.

You can use the App to give other people in your family access to or exclude multiple thermostats.

Google Assistant or Amazon Alexa
Via a Google or Amazon supported speaker you can set the temperature of your thermostat higher or lower or ask what the current temperature is. Connecting to Google Assistant or Amazon Alexa is explained in the App. In the App, go to your "Profile", choose "More Services" from the menu and follow the steps.

8. Function and operation

8.1 Temporary temperature
On the main screen, press ▽ or △ to set the temporary temperature. This temporary temperature is active until the start of the next heating period.

8.2 Mode
On the main screen, press ☐ to select the following modes:

Smart mode: This is the default mode. The thermostat operates on the basis of the set heating schedule in order to save energy.

Manual mode: Thermostat operates on the basis of the manually set temperature.

Frost protection mode: The thermostat will operate with the low set temperature. The maximum is 15ºC.

8.3 Key lock
Lock all keys to prevent settings from being changed. On the main screen, press ☐ and △ simultaneously for 3 seconds to lock or unlock.

8.4 Menu
On the main screen ☐ press and hold for 3 seconds to activate the menu.
CLK Set day and time (8.4.1)
EVE Set schedule (8.4.2)
READ Read consumption in % (8.4.3)
SET Advanced settings (8.4.4)
END Return to main screen

8.4.1 Clock (CLK)
Day, hour and minutes can be adjusted here via ▽ or △ and confirmed with ☐. With the WiFi version it is automatically updated after connection.

8.4.2 Programming periods (EVE)
In MENU, press ▽ or △ to select EVE. The standard program can be adjusted on the thermostat via ▽ or △. Each choice can be confirmed with ☐.

- First choose the day via ▽ or △ (This can be done per day or as a cluster monday to friday and saturday/sunday separately).
- Then choose an event:

Awake   Departure   Return   Sleep

- Next step is to set the (start or end time).
- Then you can choose the desired temperature. The difference between the desired temperature and the lowering temperature may be approx. 3ºC as main heating and max. 5ºC as auxiliary heating.

Repeat this until all periods and days have been programmed. If you have a WiFi thermostat, you can do this easily via the App.

Standard program for home use:

Home	Start period 1	End period 1	Start period 2	End period 2
Mon - Fri	06:00 20.0ºC	08:30 15.0ºC	17:00 20.0ºC	23:00 15.0ºC
Sat - Sun	06:00 20.0ºC	08:30 20.0ºC	17:00 20.0ºC	23:00 15.0ºC

Standard program for office use:

Office	Start work day	End work day
Mon - Fri	07:00 20.0ºC	18:00 15.0ºC
Sat - Sun	07:00 20.0ºC	18:00 15.0ºC

8.4.3 Consumption (READ)
Displays the warm-up time (in percent) within a given period (1.30 or 365 days). In MENU, press ▽ or △ to select READ.

Press o to view the previous day's consumption. Press ▽ or △ to display the consumption of 1 day, 30 days or 365 days.

Example:
The consumption is 20% and the installed power 300 Watt
20% x 300Watt = 60 Watt consumption per hour.
60W x 24 hours = 1.440 Watt consumption per day.

Press ☐ to return to the main menu.

8.4.4 Advanced Settings (SET)
PLEASE NOTE: Settings in this menu may only be adjusted in consultation with the supplier/installer to prevent unwanted results.
In MENU, press ▽ or △ to select SET.

1. Sensor selection
2. Room temp. calibration
3. Floor temperature calibration
4. Floor temperature limit
5. Schedule selection
6. Used for heating or cooling
7. Intelligent function. This function ensures that the requested temperature has already been reached when the period starts.
8. Location: Select Home or Office
9. Reset to factory settings

Each setting can be adjusted via ▽ or △ and confirmed with ☐.
Full schedule:

No.	Function	Default setting	Options
1.	Sensor selection	00: Floor sensor	00: Floor sensor 01: Room sensor 02: Room sensor with floor sensor limit 03: External room sensor 04: External room sensor with floor sensor limit
2.	Room temperature calibration	0.0ºC	-5.0ºC - 5.0ºC
3.	Floor temperature calibration	0.0ºC	-5.0ºC - 5.0ºC
4.	Limit floor temperature	35.0ºC	20.0ºC - 50.0ºC
5.	Schedule	00: 7 days	00: 7 days 01: Mon to Fri + Sat + Sun
6.	Used for	00: Heating	00: Heating 01: Cooling (only for water based systems)
7.	Intelligent function	00: On	00: On 01: Off
8.	Location	00: Home	00: Home 01: Ofice
9.	Reset	00: No	00: No 01: Reset

8.5 Open window detection
This function only works if the room sensor or room sensor with floor sensor limit are connected and selected (see point 6). This function switches the thermostat off automatically for 15 minutes when it detects a rapid drop in temperature.

9. Error messages

E1: Room sensor fault
E2: Floor sensor fault
E3: Sensor error external sensor