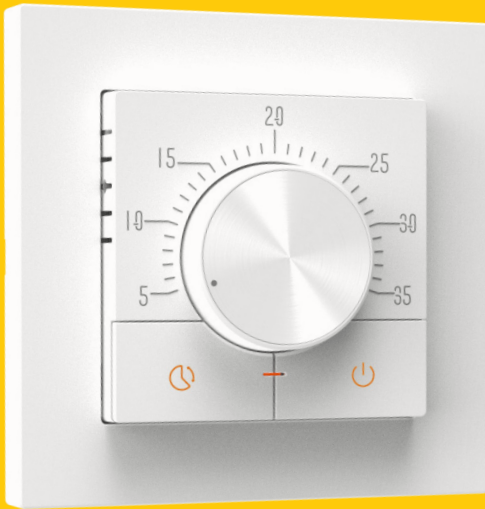# MAGNUM S-Control
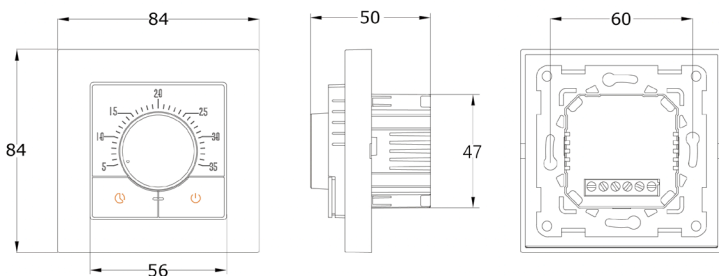## Manual On/Off thermostat

INSTALLATION AND USER MANUAL

1. INTRODUCTION

Read this manual carefully and keep it with other warranty documents. Connection must be carried out by a qualified installer in accordance with local regulations. Before installing or disassembling the thermostat and display, always switch off the electricity in the meter cupboard. This thermostat can be installed in a single fush-mounting box 50 mm deep, according to standard DIN formats.

2. TECHNICAL SPECIFICATIONS

Supply voltage	: 230VAC 50/60 Hz
Max. Load	: 16 A (resistive load)
Standby power:	: < 1W
Temperature range	: 5-35°C
Floor temp. limit protection	: 30°C
Floor sensor type	: 12k
Cover	: IP31
Approvals	: CE/UKCA
Warranty	: 2 years
Manufacturer	: MHG BV, The Netherlands

3. DIMENSIONS

4. INSTALLATION

WARNING:
Disconnect the main power supply before wiring. Installation needs to be done by a qualified electrician in accordance with all current wiring and building regulations. The electric floor heating cable/ mat must be in accordance with the supply voltage. The terminals are designed to handle a cross-section of wire measuring 12-22AWG.

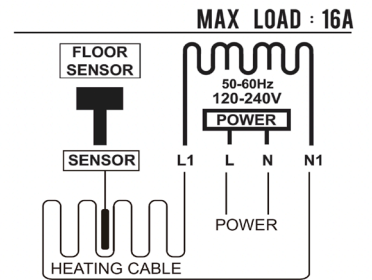**1** Make sure the power is turned off. Remove the display frame by gently pulling it.

2 Connection schedule:
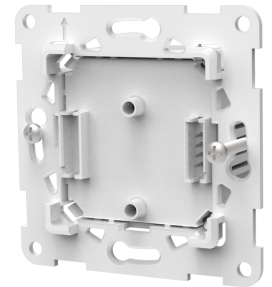
L/N:
Mains power connection

HEATING N1+ L1:
Heating cable (Max. 16A)

FLOOR SENSOR:
Floor sensor (order does not apply)
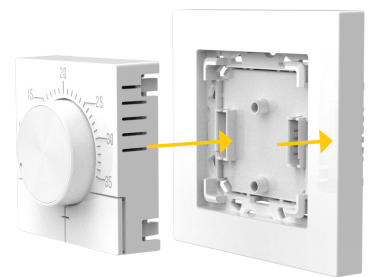

3 Use the mounting screws to fix the thermostat in the mounting box.

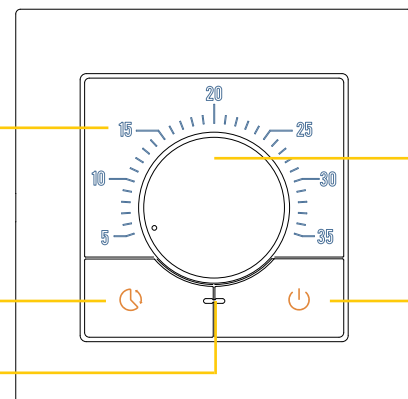**4** Position the thermostat and click into position.

5. SYMBOLS

Temperature scale

Control disc

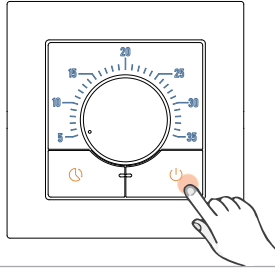Setback switch

Power switch

LED indicator*:
Red/Blue/Green

* RED: Heating / BLUE: Setback / GREEN: Standby / RED blinking: Sensor fault

6. FUNCTION AND OPERATION

01. ON/OFF

The thermostat can simply be switched On or Off by pressing the power switch. The LED indicator will turn On or Off.

02. TEMPERATURE SETTING

After the user sets the temperature, the thermostat keeps the floor temperature at the set temperature. After power off, power on again, the original set temperature will be retained and executed. Setting range of this thermostat: 5-35°C.When the indicator is red, it means that the thermostat is heating up.
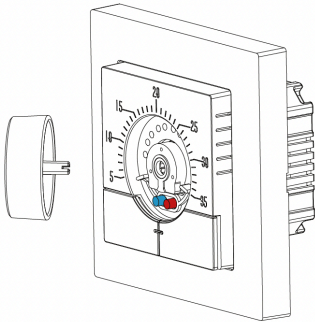
03. ANTI FREEZE FUNCTION

Turn the knob to the leftmost postition (5°C), and the floor heating will run at a low temperature, which can play a role in anti-freezing protection.
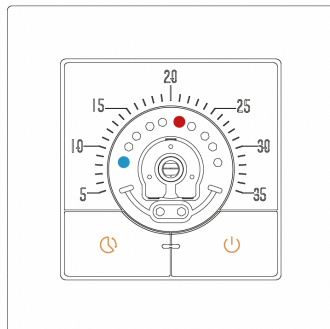
04. ADJUSTABLE TEMPERATURE LIMIT FUNCTION

If you want to set the maximum and minimum temperature within an ideal range, you can manually adjust the installation position of the limit pin.
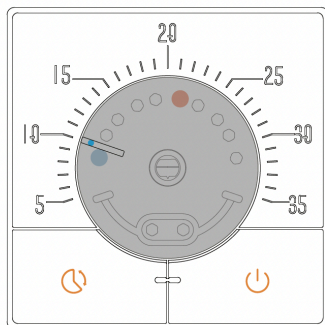
Gently remove the knob.

NOTE: *When the knob is pushed out, it is necessary to pay attention to the direction of the knob pointer, so that the position is correct when it is reinstalled.*

Place the red and blue pins in the holes of the array in the figure to set the temperature range you want. For example, place the knob pointer in the range of the red and blue pins in the figure, which means that the adjustable temperature is 10-20°C.

When installing the knob, take care to install the pointer position marked on the knob to the middle of the red and blue limit pin. In this way, the knob is limited to a range of 10-20° rotation.

05. TEMPERATURE TOLERANCE

The default value is 0,5°C. The thermostat start to work when the actual temperature is 0,5°C lower than set temperature and stops working when the actual temperature is 0,5°C higher than set temperature. This function prevents the relay from being frequently switched on and off.
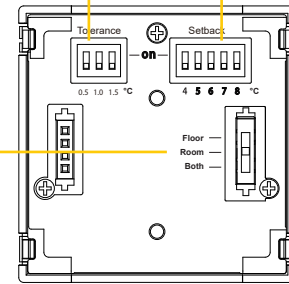
Setting method:

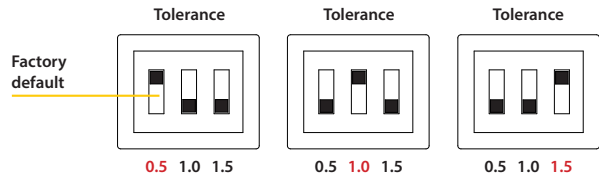**Temp Tolerance Value**
Number represents temperature(°C)

Setback Temp Value
Number represents temperature(°C)

Sensor selection

Remove the front shell.Three DIP switches are marked with temperature tolerance, setback, and sensor options respectively.The following pictures describes how to set the parameters.
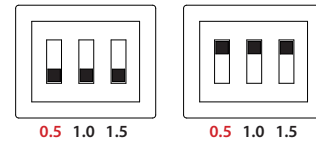

Tolerance	Tolerance	Tolerance
0.5 1.0 1.5	0.5 1.0 1.5	0.5 1.0 1.5

Factory default

Whatever value you need to set, flip the corresponding switch to the upper "on" position.

Sometimes there are some special cases, such as the following. To avoid this an error proof design is made to ensure that the settings are valid.
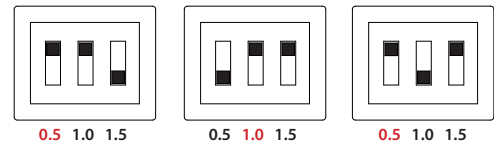
CASE 1:
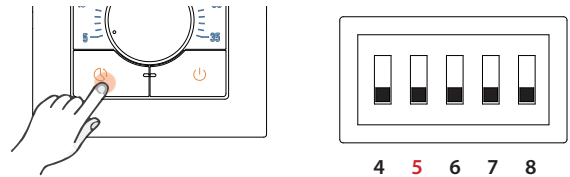When the switches are all up or all down, the setting default is 1°C.

0.5 1.0 1.5   0.5 1.0 1.5

CASE 2:
When multiple switches are above, the minimum value is taken.

0.5 1.0 1.5   0.5 1.0 1.5   0.5 1.0 1.5

06. SETBACK

Press the setback button to turn on the function. The setback function is when the thermostat 'sets back' to a lower temperature during the off time periods. This is the most economical and efficient way to achieve the best energy consumption. The default value is -5°C.

4   5   6   7   8

07. SENSOR SELECT

Select a working sensor. When "Both" is selected, the floor sensor provides temperature limiting protection. The maximum temperature is 30°C by default.