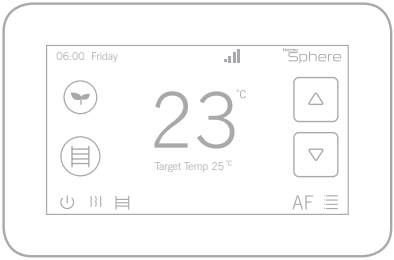
thermo Sphere

CONTROL | TOUCH
DUAL WIRELESS



Excellence in heating solutions.

Contents

Compatibility

ThermoSphere dual controls are compatible with almost all electric underfloor heating (UFH) systems available.

ThermoSphere dual control can replace your existing underfloor heating thermostat as it's compatible with many of the most popular thermostat brands, floor sensor probes including those rated at:

- 6.8kΩ @ 25°C
- 10kΩ @ 25°C
- 12kΩ @ 25°C
- 15kΩ @ 25°C
- 33kΩ @ 25°C

Replacing an existing thermostat?
Contact the manufacturer's technical department and ask for the rating of the floor sensor at 25°C

What's in the box?

Check you've got everything:

- ThermoSphere Dual Control
- Floor sensor probe (2m)
- Floor sensor conduit (3m)
- Fixing screws
- Manual and warranty information

You will also need:

- ThermoSphere Wireless Hub (for remote control)
- Electrical screwdrivers
- Deep electrical back box
- Electric testing meter

Before you start

Your thermostat should be:

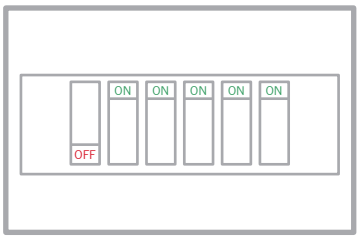
- Installed 1.2 - 1.5m from the floor
- On an interior wall
- Within 20m of your ThermoSphere Wireless Hub
- In an area outside any wet zones (IP30)
- Installed on an RCD protected circuit
- Away from drafts or heat influences
- Installed so that the floor sensor probe can be laid in a clear, temperature representative area of the floor.
- Set to floor sensing mode wherever possible
- In an open area of the room
- Installed by a professional, in line with current IEE regulations and local standards.

Installing your thermostat

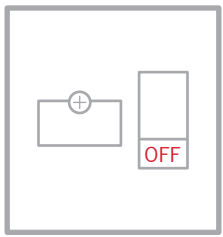
1. Switch off mains power

You will be installing your thermostat as part of a high voltage mains electrical circuit. To ensure your safety and to protect the thermostat, switch off the mains power before you start the installation.

CAUTION
High Voltage Cables



Fuse Box



Fused Switch

Installing your thermostat

2. Choose a location

At this stage it its likely that an RCD protected electric underfloor heating system has been installed and a back box is already in place.

The underfloor heating cold tail should be pulled up through the back box, and the sensor probe installed (in the conduit provided) within the wall cavity or pre chased channel in a solid wall.

Installing your thermostat

3. Maximum distances

Your thermostat can be installed up to 50m away from the underfloor heating system it is controlling, provided that the floor sensor is used to control the temperature.

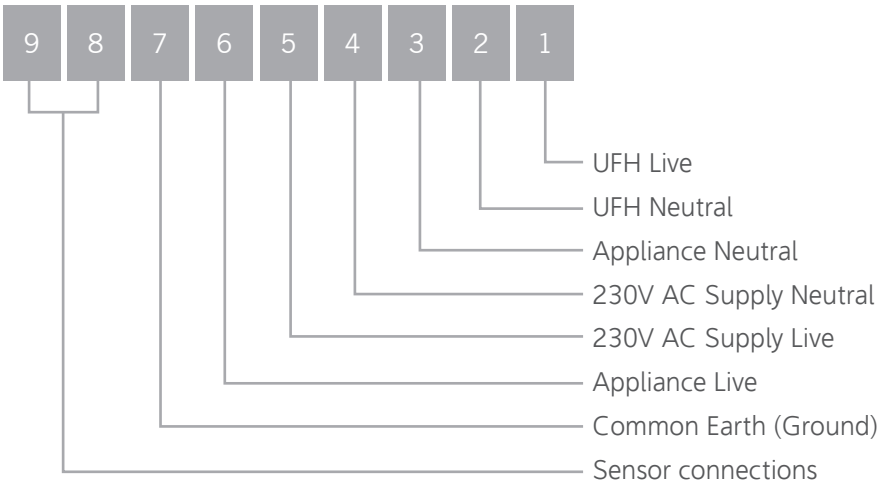
Underfloor heating cold tails and floor sensor probes can be extended up to 50m.

Installing your thermostat

4. Wiring diagram

Connect to the underfloor heating (UFH) cold tail, additional appliance, power supply and floor temperature sensor.

The floor temperature sensor is not polarity sensitive.



Installing your thermostat

5. Fix to the wall

Use a small flat screwdriver in the groove on the underside to lever the face plate away from the back plate.

Carefully disconnect the ribbon cable and align your thermostat with the mounting positions on the pre installed back box.

Fix in place with the screws provided. Now connect the ribbon cable and clip the face plate back into position.

Installing your thermostat

1. Time & date
2. Heating mode
3. Appliance mode
4. Power
5. UFH on icon
6. Appliance on icon
7. Measured temperature
8. Target temperature
9. Sensor mode icon
10. Menu
11. Down arrow
12. Up arrow
13. Network indicator

Settings

Time & date

Set the current date and time.

Heating schedule

Set the automatic schedule for your underfloor heating and an additional appliance.

Display settings

Change the backlight timer as well as the minimum brightness. Select the home screen wallpaper from 8 different colours and set the screen orientation to portrait or landscape.

Settings

Pre set temperatures

Pre set comfort, eco and holiday temperatures.

Sensor mode

Select either floor, ambient or ambient with floor limit sensor modes. Ambient with floor limit will react to the ambient temperature primarily, but will switch off if the floor temperature gets too high.

Advanced settings (p27)

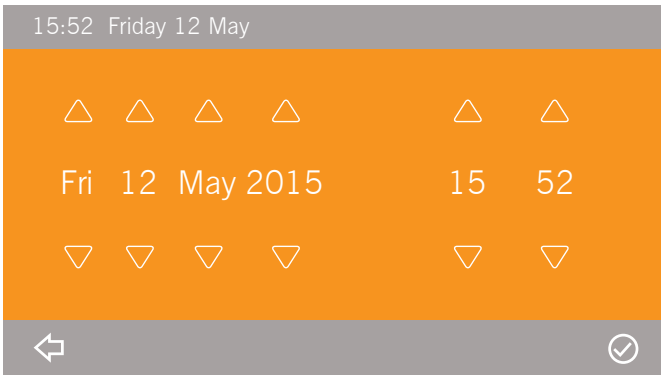
Floor and ambient temp calibration, Sensor calibration, switch rail and UFH controls on and off, change the language, factory reset, set your temperature limits. More detail on sensors on p30.

Set the time and date

When you first switch our thermostat on, you will need to set the current time and date.

You can do this by pressing Menu and then Date & Time .

Use the arrows to select the right date and time and then press confirm to save.



Heating schedule

Setting up a schedule ensures energy efficiency and convenience by automatically changing the temperature of your underfloor heating system.

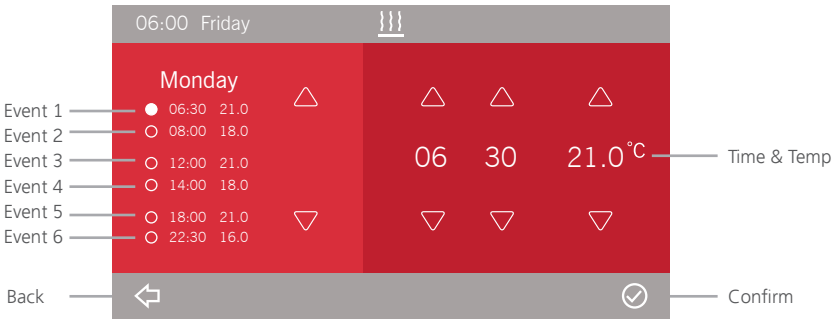
Each day of the week can be programmed independently.

There are 6 heating events for every day. Most people treat them as 3 on/off cycles.

Start setting up your underfloor heating schedule on page 16.

Heating schedule

1. Press menu
2. Press schedule
3. Press UFH schedule
4. Select the day you wish to edit
5. The first heating event for the day is already selected.
6. Set the time you want your heating to come on in the morning and the temperature you want your floor to heat up to, using the up and down arrows.



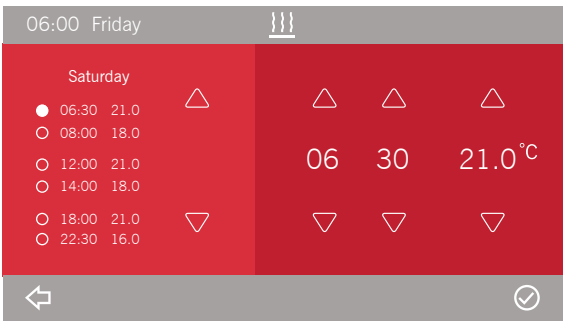
Heating schedule

7. Press confirm ⊘ to save your settings.
8. Use the left arrows again to select heating event 2 and set the time you would like your underfloor heating to switch off.
9. Now use the arrows to set your Eco temperature. This is a low temperature that means your heating is effectively off. We recommend around 6°C less than the temperature you set when the floor is warm. Press confirm ⊘ to save your settings.
10. Repeat steps 8 - 9 for heating events 3 & 4. If you don,t want your heating on in the afternoon set events 3 & 4 to the low Eco (or off) temperature.
11. Repeat steps 8 - 9 for heating events 5 & 6. If you don,t want your heating on in the evening set events 5 & 6 to the low Eco (or off) temperature.

Heating schedule

12. Now you need to set the heating schedule for the rest of the week. Press back ⇦ and then select Tuesday.
13. Repeat the process to set the on/off times and temperatures for Tuesday. Press confirm ⊘ to save your settings.
14. Press back ⇦, select the day and repeat the process for the remaining days of the week.

    Press confirm ⊘ to save your settings and press back ⇦ to go back to the menu and home screen.



A typical heating schedule

Everyone is different, but typical heating schedule for a working family would have the heating on in the morning and evening during the week. At weekends heating can be on in the morning, for a period in the afternoon and then again in the evening.

You can adjust the time and temperature of any of these heating events to suit your lifestyle.

Appliance schedule

Copy your heating schedule to an appliance (such as an electric heated towel rail or mirror de-mister) that is connected to your thermostat.

When you have finished setting your UFH schedule press Copy, press OK and then press confirm to save your settings ⊘.

This will copy all of the on/off times from your UFH schedule to the appliance schedule.

Now select a day, use the arrows to select the heating events and set the appliance to on or off. You can also adjust the times if you want to.

There is no temperature setting for the appliance because it is not connected to a temperature sensor.

Appliance controls

You can control another appliance, such as an electric heated towel rail from the home screen.

On

The appliance will stay on until you turn it off again.

Schedule

The appliance will switch on and off according to the appliance heating schedule

Appliance boost

Switches the appliance on for one hour, 2 hours or 4 hours and then back to the appliance heating schedule.

Heating modes

Your thermostat has several preset heating modes that can be adjusted in the settings menu.

Eco

Maintains a low temperature, usually between 16 -18°C, to save money on energy bills while keeping the chill off your floor.

Comfort

Maintains a higher temperature, usually between 22 - 27°C, that will keep you warm on a cold day!

Both of these modes can be set to stay on forever until you change it, for a 1, 2 or 4 hour boost, or until the next heating schedule event.

Heating modes

Schedule

Your thermostat will follow the temperatures and times set up in your heating schedule.

You can manually override the schedule using the up and down arrows to select a different temperature.

Your thermostat will maintain the boost temperature until the next scheduled heating event.

Manual

You can manually select any temperature and must make all temperature changes yourself.

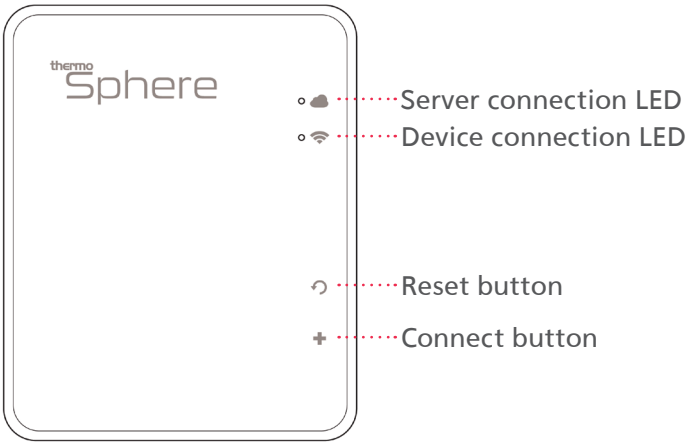
Holiday

Maintains a low frost protection temperature, usually between 5 - 10°C, while you are away. Your heating system is off, but will switch on automatically if the temperature gets too cold.

Wireless connection

You will need a ThermoSphere Wireless Hub (5000RF) to set up and control your thermostat(s) via your wireless network.

Refer to the instructions that come with your hub for guidance on pairing the Hub with your wireless router and app.



Available on the iPhone App Store

ANDROID APP ON Google play

Search for "MyThermotouch" to download the free app

Wireless connection

1. Make sure your thermostats are connected to the electricity and switched on.
2. Use the tool to press the connect button on the hub twice (in quite quick succession). The device connection LED will start flashing if you've done it right and the hub will look for connections to devices for 2 minutes.
3. Put your thermostat into connection mode by pressing the ‘Network' button in the top right corner of the screen.
4. Now an RF ID code will appear on the screen of the Thermostat. Press the ‘tick’ button next to the code.
5. Tap the ‘OK' button to start connecting to the hub.
6. When the 'Connection success' shows on the screen, go back to your app, refresh the page (drag down and release), tap your hub icon and you will see the RF ID code listed. Congratulations! That's a successful connection!
7. Now you've connected the first Thermostat you can press and hold it on the app to change the name.
8. At first, after a connection, the thermostat may be OFF so you'll need to switch it on by tapping the Thermostat Name in the app, press the ‘Menu' icon on the top right corner and turn the ‘Floor heating' switch ‘On'.
9. That's it! You can repeat the process to set up a maximum of 32 thermostats per hub and up to 2 hubs.

Energy saving features

Adaptive Start

With the Adaptive Start feature enabled, your thermostat will measure how long it takes for your individual floor to heat up and ensure the target temperature is achieved at the set time.

So if you set your heating schedule to 24°C at 07:00, the floor will be at 24°C at 07:00. No need to set the heating to come on early!

Your thermostat starts learning from the first time you enable the heating schedule. It turns on an hour early to start with and gradually optimises the heat up time over 7 days.

Open Window Detector

When the Open Window Detection feature is enabled, Your thermostat can detect sudden drops in temperature and will switch off your heating to eliminate wasted energy.

Your thermostat will come back on after 30 minutes, provided the temperature has stabilised.

You can activate and adjust these features in the advanced settings menu. See page 28.

Advanced settings

Adjusting the advanced settings

To access the settings press Menu, then the green Settings icon.

In this menu you can set up and control all of the more advanced settings for your thermostat Thermostat.

Advanced settings

MENU	DESCRIPTION	RANGE	DEFAULT
01	Maximum Temp Limit	5°C ~ 40°C	27°C
02	Minimum Temp Limit	5°C ~ 15°C	5°C
03	Maximum Set Temperature	5°C ~ 40°C	35°C
04	Floor Temperature Calibration	-10°C ~ 10°C	0°C
05	Ambient Temp. Calibration	-10°C ~ 10°C	0°C
06	Sensor Calibration	See page 30	10kΩ
07	Rail Control	ON, OFF	OFF
08	Language	English, French, German	English

Advanced settings

MENU	DESCRIPTION	RANGE	DEFAULT
9	Factory reset	Re (yes)	
10	Adaptive Start	1 (On), 0 (Off)	Off
11	Open Window Detection	1 (On), 0 (Off)	Off
12	OWD Off Time	2 - 30 minutes	15 mins
13	OWD Temperature Drop Limit	2, 3 or 4°C	2°C
14	OWD Heating on again after	10 - 60 minutes	30 mins

Compatible sensor probes

Your thermostat can be calibrated to work with some of the most popular sensor probes available.

Tep	6.8kΩ @ 25°C
THE	10kΩ @ 25°C (Default)
ENS	10kΩ @ 25°C
OJ	12kΩ @ 25°C
Dev	15kΩ @ 25°C
Ebe	33kΩ @ 25°C

Replacing an existing thermostat?
Contact the manufacturer's technical department and ask for the rating of the floor sensor at 25°C.

Technical data

Supply voltage	230/240V 50/60Hz
Maximum load	16A (20A combined)
UFH relay	16A (3600W)
Appliance relay	5A (1125W)
Temperature range	5 ~ 35°C
Ambient	0 ~ 50°C
Compatible sensors*	6.8kΩ, 10kΩ, 12kΩ, 15kΩ, 33kΩ
Accuracy	±0.5°C
Warranty	3 years
IP rating	IP30
Width	129mm
Height	88mm
Depth	48mm (31mm in wall)

*All quoted sensor resistance ratings are measured at 25°C.

thermo Sphere

DUAL-RF-IG-01

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