



Continal 39003-TSRF Quantum Digital Thermostat-RF Instruction Manual

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Continal 39003-TSRF Quantum Digital Thermostat-RF Instruction Manual



The Quantum digital thermostat-RF is stylish, modern, wireless and packed full of app controlled features. Recharging is simple via the micro USB port. Easy to set up and control, this self-learning thermostat can be operated remotely via your smart device or manually through its intuitive interface.

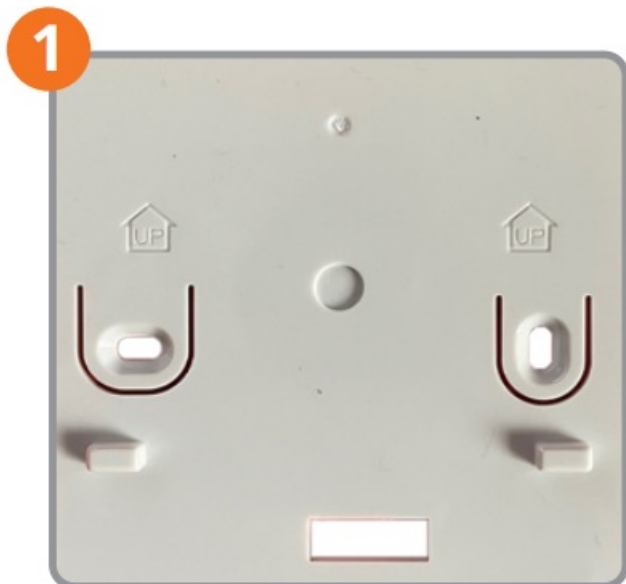
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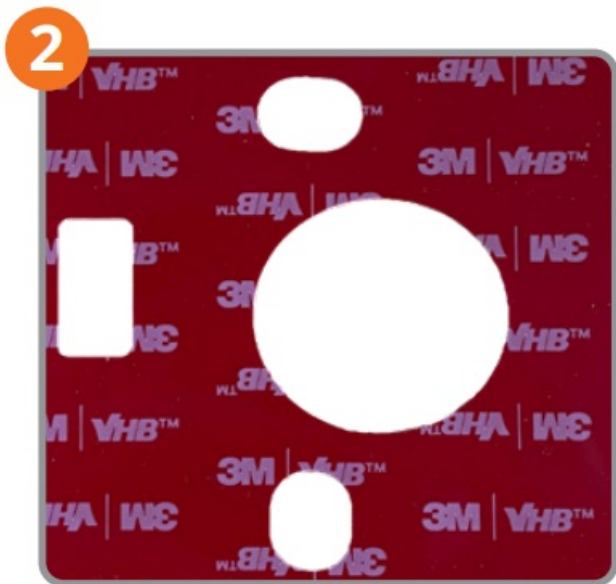
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Before you start

Wall mounting

The ideal position to mount the thermostat is 1.5m above floor level and away from heat sources. The Quantum digital thermostat-RF should not be exposed to sunlight or any extreme conditions (including draughts)



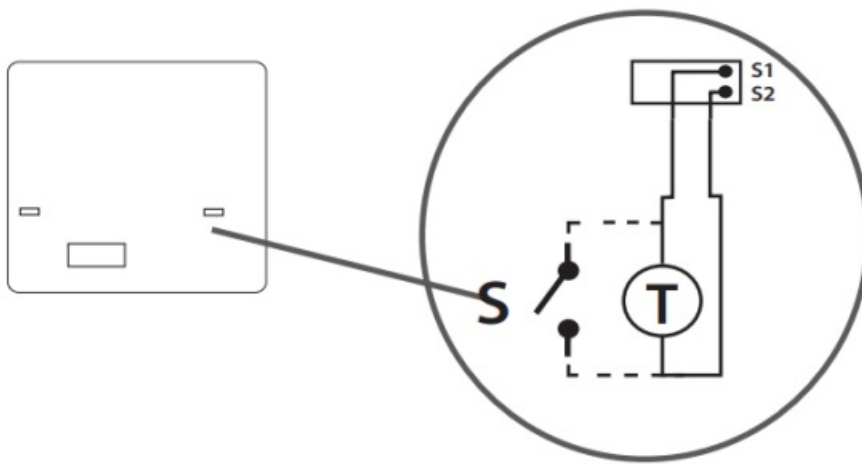


Mounting: To wall mount the thermostat, use the accessories supplied.

1. The wall plate can be mounted by using either the supplied
2. self-adhesive mounting tape or
3. the mounting screws.

Once in place, just attach the thermostat (both thermostat and plate have built-in-magnets).

Wiring diagram



Symbols explanation:

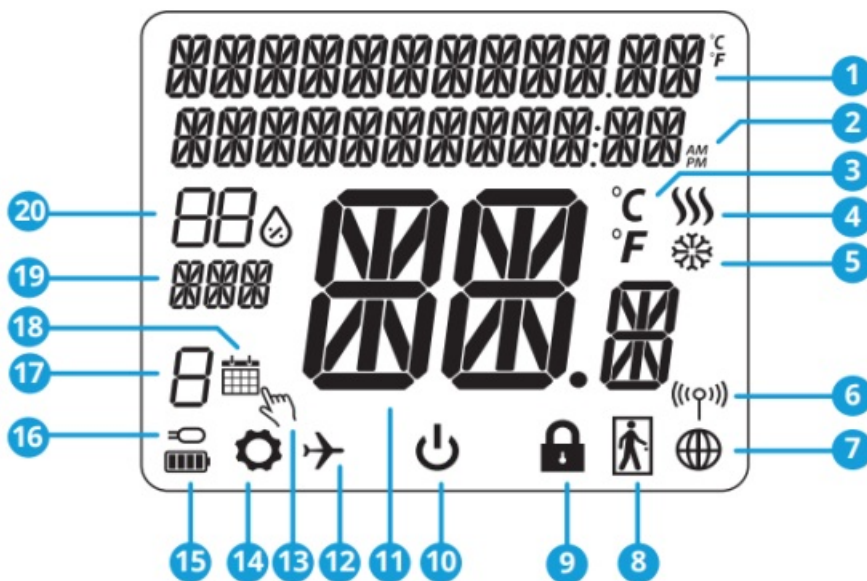
S – Volt-free contact

T – Temperature sensor

S1, S2 Terminals:

- Air or floor temperature sensor
- External volt-free contact to connect any ON/OFF switch or occupancy sensor






LCD icon description



1. Menu / Settings description + clock
2. AM / PM
3. Temperature unit
4. Heating indicator (animated when demand)
5. Cooling indicator (animated when demand)
6. RF connection indicator
7. Internet connection indicator
8. Occupancy sensor
9. Key lock function
10. Standby mode icon

11. Current temperature / setpoint temperature
12. Holiday mode
13. Temporary override mode
14. Settings icon
15. Status indicator
16. External / floor temperature sensor indicator
17. Schedule programme number
18. Schedule mode icon
19. Day indicator / SET information
20. Current humidity value

Button description

Button	Function
	<ol style="list-style-type: none"> 1. Menu button / return button. 2. In the main screen: press and hold for 3 seconds to change the thermostat operating mode (schedule mode / permanent mode / temporary override mode). 3. In the settings screen: press and hold for 3 seconds to go back without saving the changes. 4. In the pairing screen (in system type menu): press and hold for 3 seconds to see other pairing options.
	"Down" button (decrease value / move the menu in the 'down' direction).
	"Up" button (increase value / move the menu in the 'up' direction).
	<ol style="list-style-type: none"> 1. Press and hold for 3 seconds to power up. 2. "Ok / tick" button (confirm parameter value / go to the next menu / save settings). 3. Main screen: press and hold for 3 seconds to enter standby mode. 4. Settings screen: press and hold for 3 seconds to go back to the main screen & save all your changes. 5. During pairing process – hold button for 3 seconds to power off or reboot the thermostat
	In the main screen – press and hold these buttons together for 3 seconds to lock / unlock the thermostat keypad).

Compatibility with other Continal devices

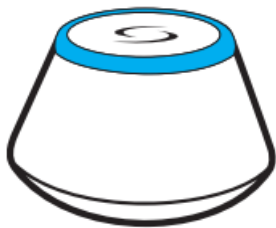
The Quantum digital thermostat-RF can work in online or offline mode.

*Mode selection is available on first use.

Online mode

Quantum hub connected.

You can configure and use all your devices in the Salus Smart Home app



Offline mode

Quantum hub not connected.

You can use your devices locally. This works using the ZigBee network.




Download the Salus Smart Home app on your iOS or Android device

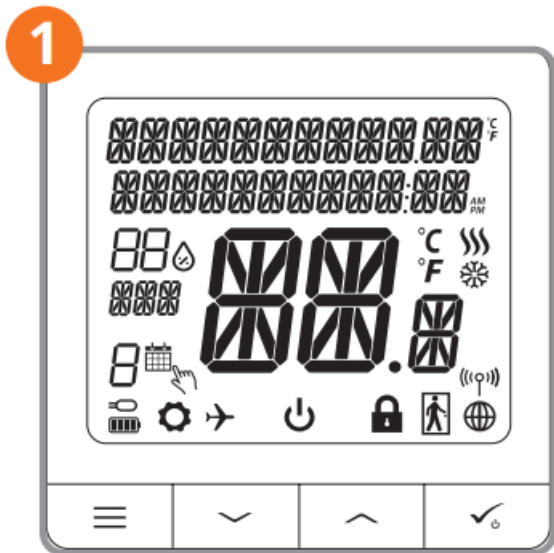
Salus Smart Home app



First power-up sequence



Please note: For easy installation, please make sure you have already added your other devices to the ZigBee network, such as wiring centres etc.

1. To power on, hold the  button for 3 seconds. The display will show all icons.



2. The thermostat will display the software version.



3. Now, choose your language by using the  or  buttons. Confirm your language using the button.



Linking

Refer to the Quantum digital thermostat-RF linking quick guide for instructions on how to link the Quantum digital thermostat-RF. This can be found at www.continal.eu/quantum

Full menu structure

Admin settings:

- Temperature scale
- Display temperature resolution
- Heat control algorithm
- Cool control algorithm
- S1 / S2 input
- Minimum setpoint
- Maximum setpoint
- Valve protection
- Minimum turn-off time
- Optimisation feature
- Comfort warm floor
- Pin code
- Device information
- Factory reset

Schedule settings:



- Disable
- MO-FR+SA-SU
- MO-SU
- Single days

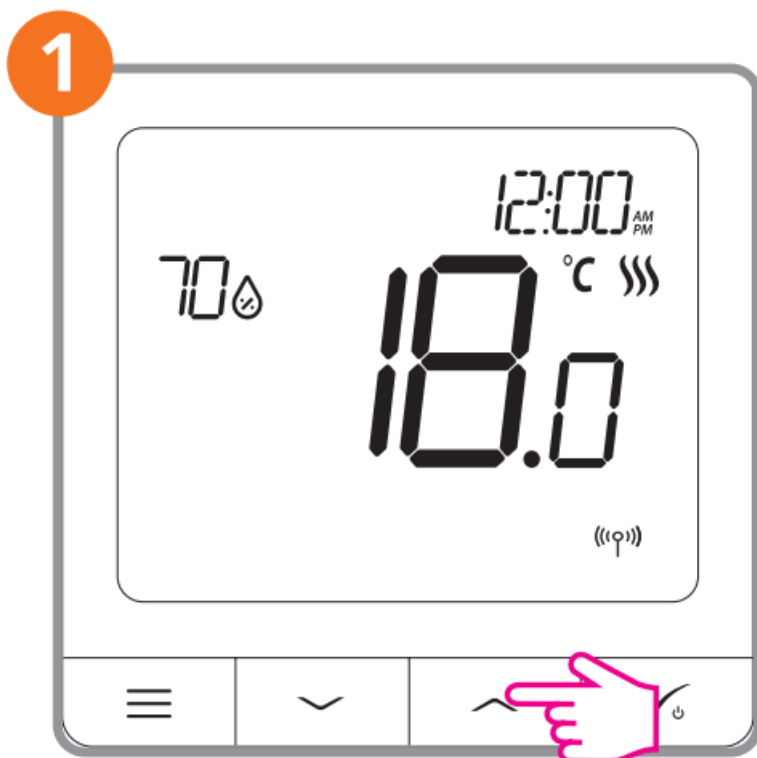
User settings:

- Time / date
- Holiday mode
- Thermostat calibration
- Show / hide display humidity
- Show / hide display floor
- Standby temperature setpoint
- Heat / cool
- Reset user settings

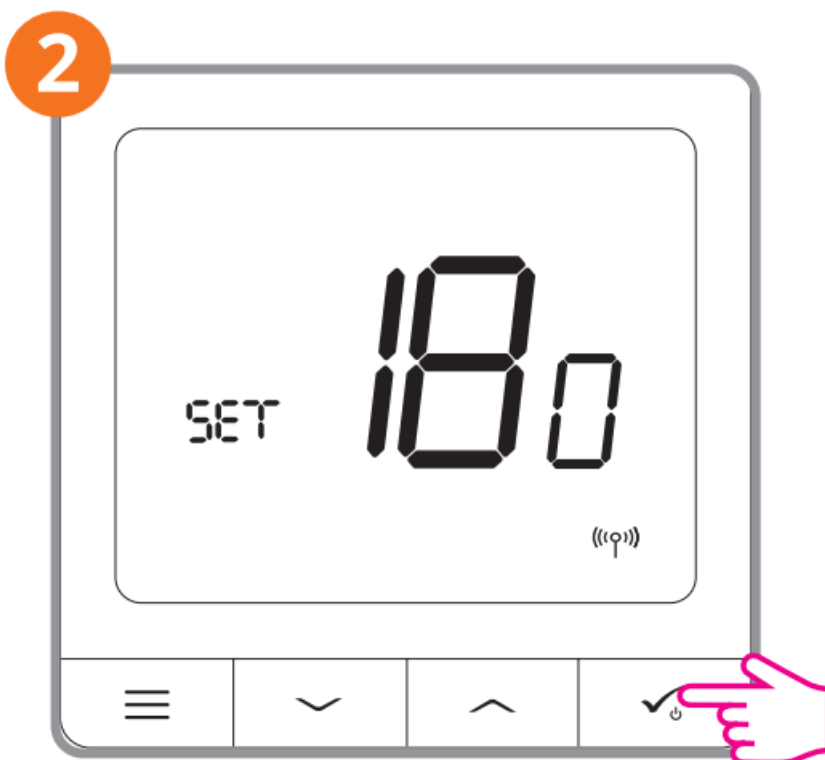
Operating in offline mode

Setting temperature change (manual mode)

1. Use the  or  buttons to set the temperature

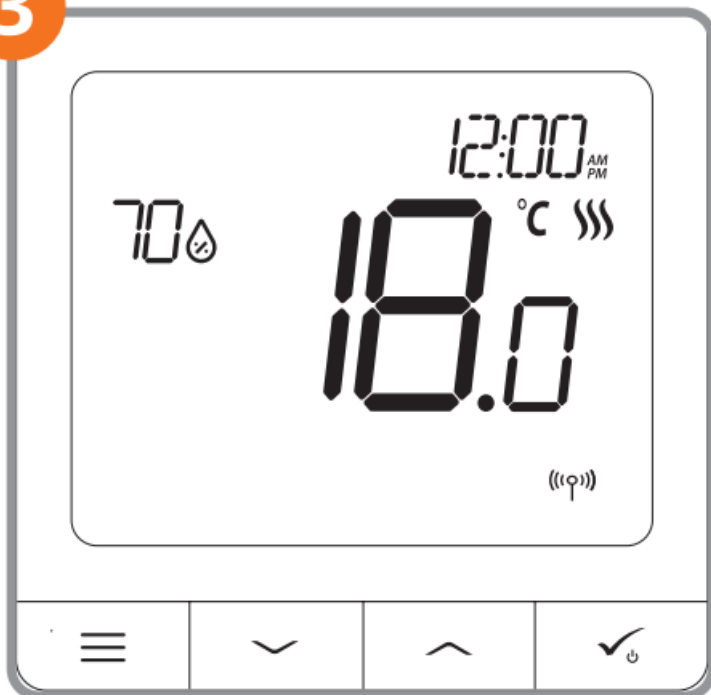


2. Confirm by pressing the button.



3. The thermostat will go back to the main screen.

3

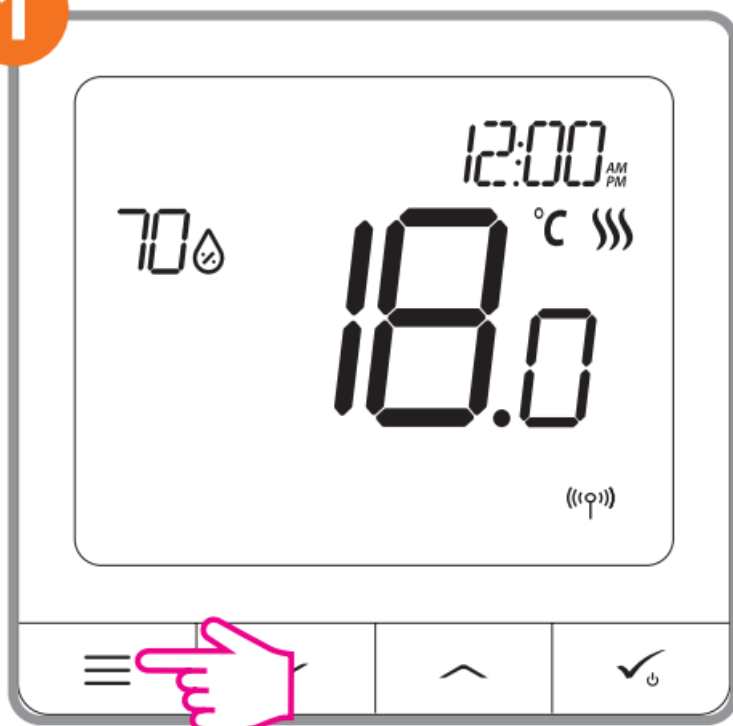


Setting time / date

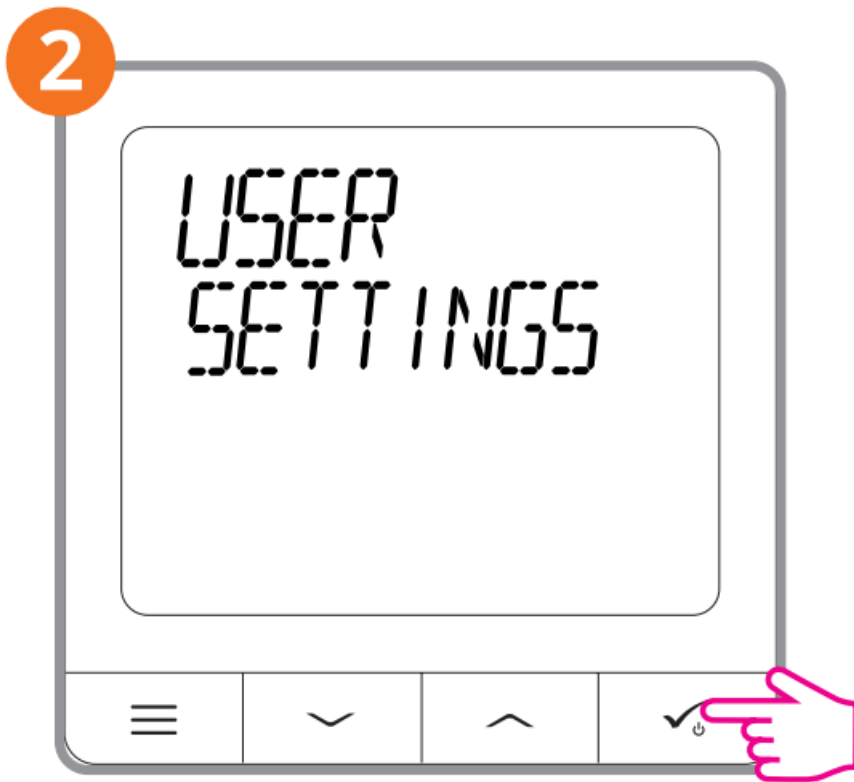
Setting the time / date manually can only be done in offline mode. In online mode the Quantum digital thermostat-RF will automatically synchronise the current time and date.

1. Press the button to enter the main menu.

1



2. Go to the user settings.



3. Select the time / date option.



4. Select the clock settings.

4



5. Use the  or  buttons to set the time.

5



6. Use the  or  buttons to set the date.

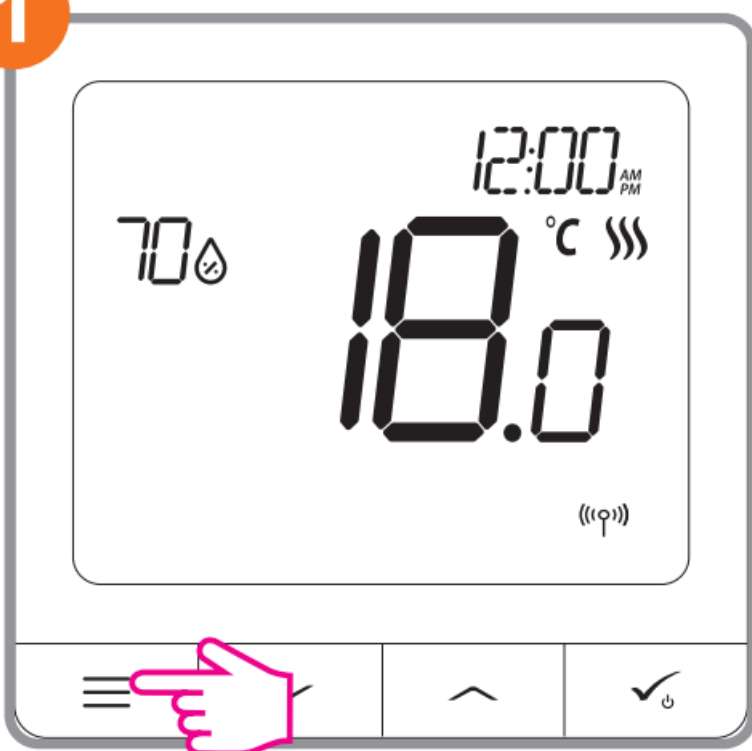
6



Programming mode

1. Press the = button to enter the main menu.

1



2. Enter the schedule settings.

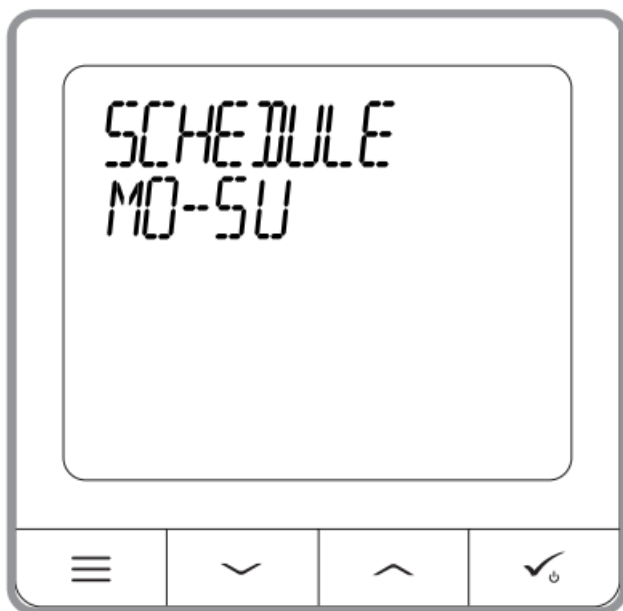


There are 3 possible schedules to choose from.

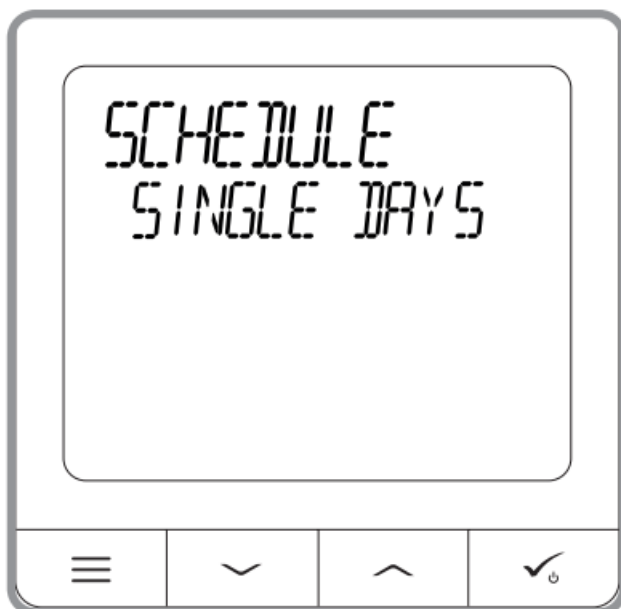
3. Separate schedules for weekdays and weekends.






One schedule for the whole week.



Seven separate schedules for single days.

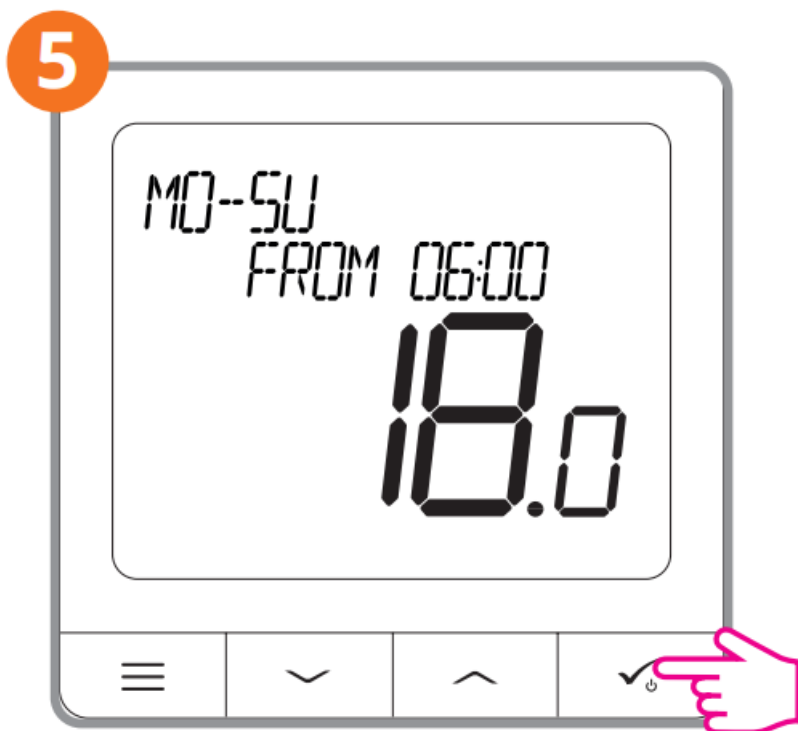



Programming example shown is for the whole week.

4. Use the  or  buttons to set the time. Press the  button to confirm.



5. Use the  or  buttons to set the temperature setpoint. Press the  button to confirm.

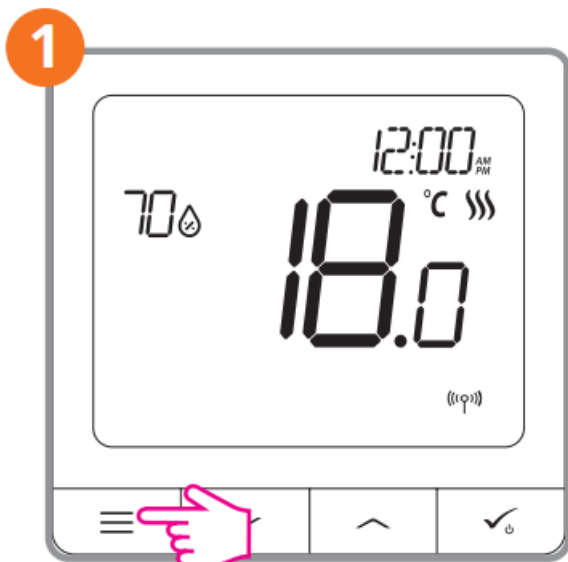


6. The next programme will appear, this will be the lower comfort temperature. Repeat steps 4 and 5 for the next schedules required. There can be 3 time periods set within the schedule. To skip set periods use —:—. Once the final schedule has been added hold  for 3 seconds to save and exit. After setting the program, the calendar icon will show on the display.

Holiday mode

Holiday mode will maintain a temperature setpoint for a specific amount of time

1. Press the + button to enter the main menu.



2. Go to the user settings.






3. Choose the holiday mode option.



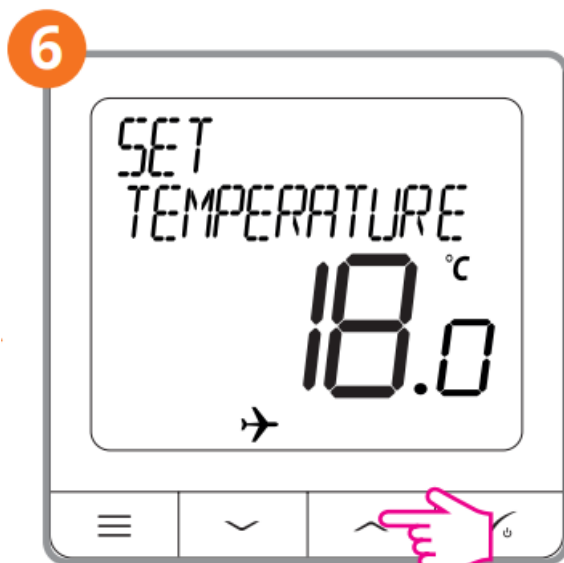
4. Select yes to activate holiday mode.



5. Use the  or  buttons to set the duration (in days). Press the  button to confirm.

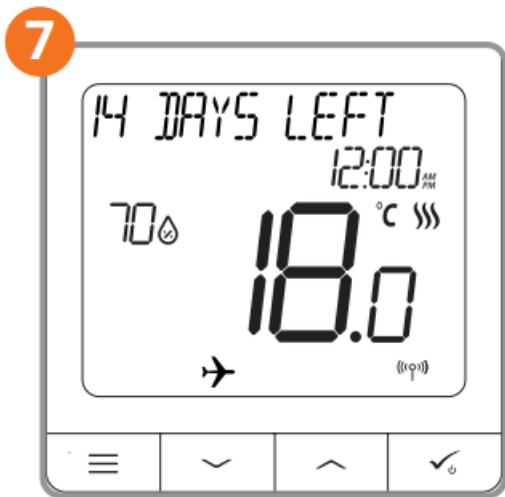


6. Use the  or  buttons to set the temperature setpoint. Press the  button to confirm.




7. When holiday mode is active, this is shown by the plane.

The thermostat will show how long is left on the top of the display



To turn off holiday mode.

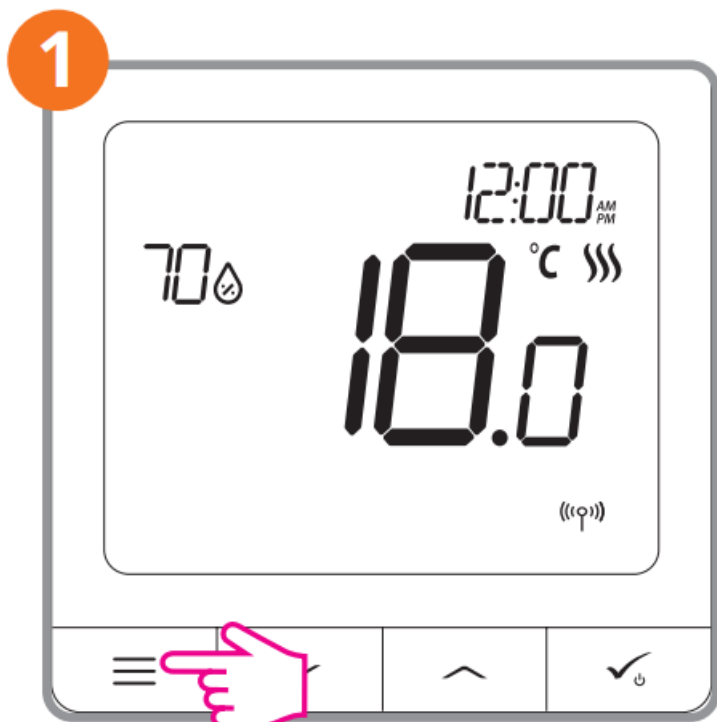
8. Press any button while in holiday mode. To disable holiday mode, select yes and press the  button to confirm.



Display humidity

The Quantum digital thermostat-RF has a built-in hygrometer (humidity sensor). The humidity value can be displayed or hidden.

1. Press the button to enter the main menu





2. Go to the user settings.



3. Select the display humidity option.



4. Use the  or  buttons to show or hide the humidity indication.

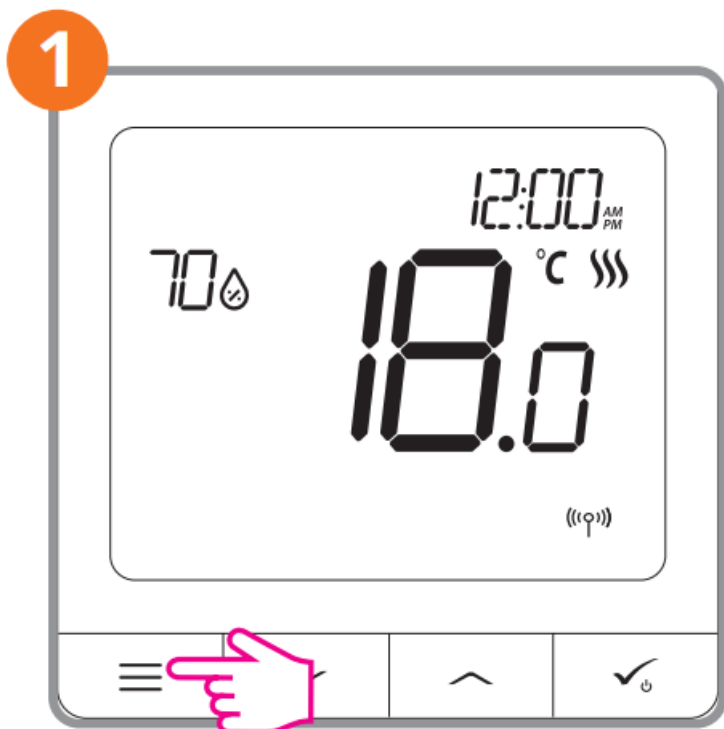
Press the  button to confirm



Display floor temperature

Display floor temperature is a function available when using the Quantum floor sensor.

1. Press the button to enter the main menu.






2. Go to the user settings.



3. Choose the display floor temperature option.

3



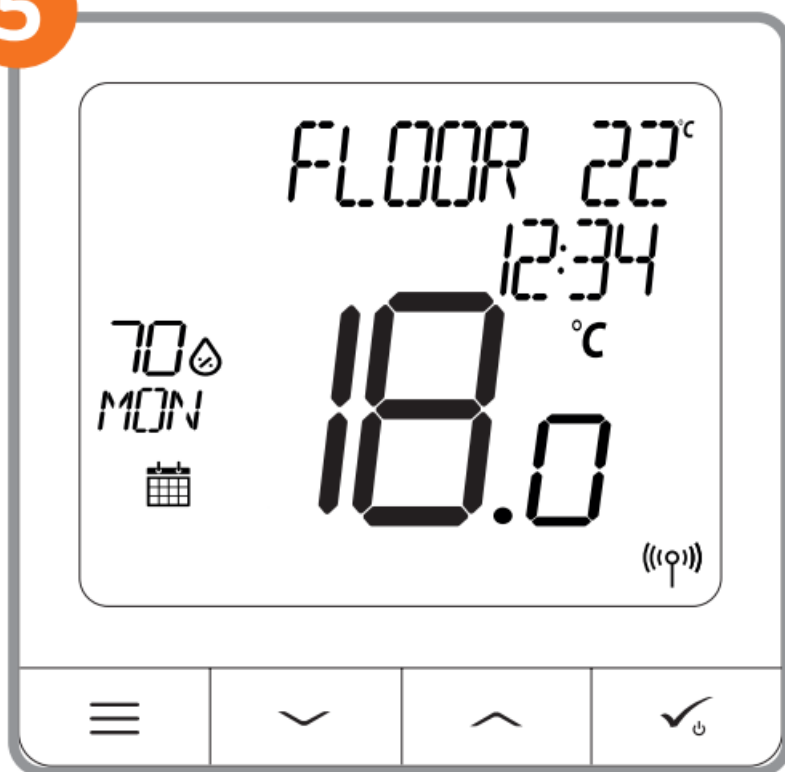
4. Use the  or  buttons to show or hide the floor temperature. Press the  button to confirm.

4



5. The floor temperature is displayed with one degree of accuracy.

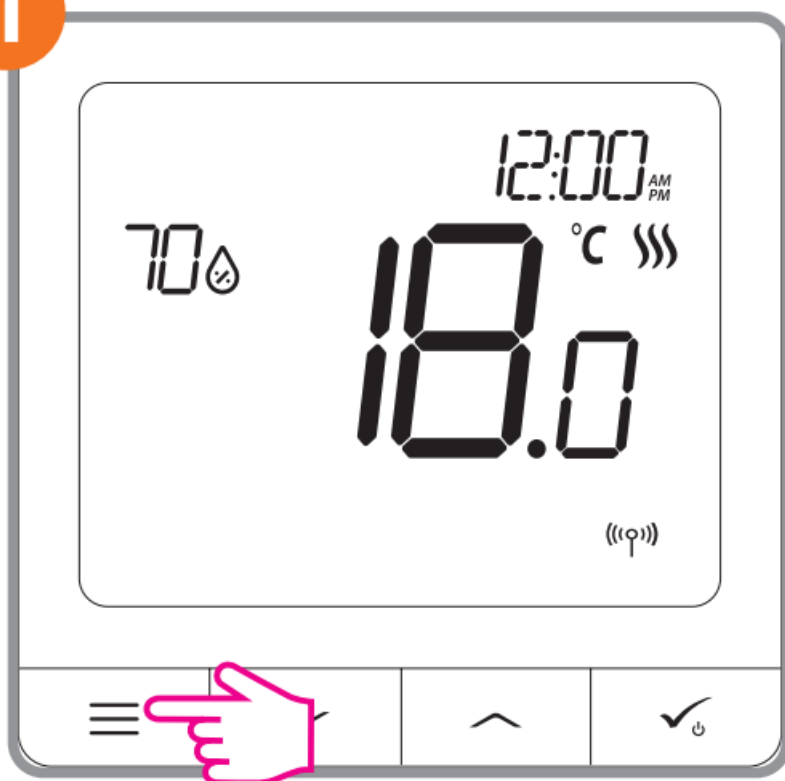
5



Reset user settings (back to default)

1. Press the = button to enter the main menu.

1



2. Go to the user settings.

2



3. Choose the reset user setting

3



4. Confirm the reset by selecting yes.



5. The user settings has been successfully reset.



Short description of admin settings

Temperature scale: Set the temperature scale to Celsius or Fahrenheit.

Display temperature resolution: Determines the resolution of the displayed temperature (0.5°C or 0.1°C).

Heat control algorithm: This function defines how to control the room temperature. Choose ITLC for underfloor heating.

S1 / S2 input: An external temperature sensor or an occupancy sensor can be connected to the S1 / S2 input of the Quantum digital thermostat-RF. Additionally, by connecting a NO type of ON / OFF voltagefree contact, you can use this input as a one-touch rules trigger (programmed in the Salus Smart Home app).

Valve protection: This function activates all actuators once a week for 5 minutes (in summer, this function helps to prevent the actuators sticking).

Min turn-off time: Minimum switch-off time (the thermostat will not send the signal for heating more often than specified in this parameter)

Optimisation feature: Optimum start and optimum stop functions are an energy saving feature that makes the thermostat more cost-effective (in combination with the ITCL control algorithm).

Comfort warm floor: This function helps to keep the floor warm, even if the room is warm enough and there is no need to turn on the heating. You can select 3 levels of warmth.

Please note it is not an economy feature, as your heating system may be on even if there is no heating demand from the room thermostat. The comfort feature is designed to keep your floor warm all the time.

Device information: In this menu you can check: Software version, RF range value, paired devices or also activate identification mode.

Factory reset: Here you can reset your device to factory settings. After a successful reset, the device will be removed from ZigBee network and you will need to add / pair your device again.

Error codes

Error code	Display description	Error description	Troubleshooting

1	TRV hardware problem.	TRV paired with thermostat – TRV hardware error.	Reinstall the TRV head or replace it. If necessary contact Coninal.
2	Floor sensor overheated / overcooled.	Floor is overheated (in heating mode). Floor is overcooled (in cooling mode).	Set the heating medium temperature or change floor sensor MAX / MIN temperature setpoint in the S1/S2 input admin setting parameter. Set the cooling medium temperature or change floor sensor MAX / MIN temperature setpoint in the S1/S2 input admin setting parameter.
3	Floor sensor defect.	Floor sensor is broken.	If floor sensor is connected to S1/S2 input, check the wiring. If floor sensor is not connected, check the S1/S2 input parameters settings

4	Floor sensor defect.	Floor sensor is shorted	If floor sensor is connected to S1/S2 input, check the wiring. If floor sensor is not connected, check the S1/S2 input parameters settings. Check floor sensor wire insulation for any damages. Sensor resistance for 25°C=1 10kΩ.
5	Connectivity lost COORD	Thermostat lost contact with the coordinator or the Quantum hub.	Check the coordinator / Quantum hub power supply connection. Force identification process from the coordinator / Quantum hub or thermostat.
6	Connectivity lost WC	Thermostat lost connection with the wiring centre.	Is the wiring centre turned ON and Status Network LED solid? If yes, send the heating signal from thermostat to the wiring centre (change setpoint temperature)

7	Connectivity lost TRV.	Thermostat lost contact with the TRV head	<p>Check TRV head batteries. Send the heating signal from thermostat and check if the TRV head is working. If the LED on the TRV head is flashing, repeat the pairing procedure with thermostat according to the manual instructions.</p>
8	Connectivity lost RX 1.	Thermostat has lost connection with the boiler receiver (RX1 mode).	<p>Is the boiler receiver plugged to the power supply and the top LED is red? The Auto / Manual switch has to be set to AUTO position. Force identification process from the coordinator / Quantum hub side and check if the devices are within the network. Send the heating signal from thermostat. If the top LED is flashing, perform the pairing procedure according to the boiler receiver manual instruction.</p>

9	Connectivity lost RX 2.	Thermostat has lost connection with the boiler receiver (RX2 mode).	Is the boiler receiver plugged to the power supply and the top LED is red? The Auto / Manual switch has to be set to AUTO position. Force identification process from the coordinator / Quantum hub side and check if the devices are within the network. Send the heating signal from thermostat. If the top LED is flashing, perform the pairing procedure according to the boiler manual instruction.
10-17	Connectivity lost zone 1 – 8.	Wiring centre has lost connection with the thermostat of the given zone: e.g. 11 = with zone 1; 12 = with the zone 2 etc. Error is displayed on all thermostats.	Check the thermostat power supply. Send the heating signal from thermostat. If necessary, reinstall the thermostat.

18	WC / CB lost connectivity	Wiring centre has lost connection with the coordinator / Quantum hub. Error is displayed on all thermostats	Is the wiring centre turned ON and status network LED solid? Force identification process from the coordinator / Quantum hub side and check if wiring centre is within the network. If LED of the network status is flashing, pair the wiring centre with the system in accordance to the manual instruction and pair all the thermostats with wiring centre
19	WC / CB lost link boiler receiver.	Wiring centre has lost connection with the boiler receiver operating in RX1 mode. Error is displayed on all thermostats.	Is the wiring centre turned on? Status network LEDs should be solid. Force identification process from the coordinator / Quantum hub side and check if devices are within the network. If the LED of the AUTO / MANUAL receiver switch is flashing, follow the boiler receiver manual instruction for pairing.

20	Connectivity lost COORD.	TRV head has lost connection with coordinator / Quantum hub.	Check TRV head batteries (replace if necessary). Check if the coordinator / internet Quantum hub is connected to the power supply. Force identification process from the coordinator / Quantum hub side and check if devices are within the network. Send the heating signal from thermostat.
21	TRV low battery.	Low battery level in the TRV head.	Replace the TRV head batteries
22	Unpaired TRV within range.	TRV head pairing error or head is incompatible with the system.	Remove TRV head from the system and repeat the pairing procedure with the thermostat.

23	Thermostat rejected WC.	Thermostat was rejected by the wiring centre.	Perform the thermostat's pairing procedure again.
24	Connectivity lost.	Thermostat has lost connection with the nearest 230V powered device	Check the power supply of the nearest 230V device. If there is problem with RF signal range, install the ZigBee network repeater and pair the thermostat with the receiver again (wiring centre, TRV head etc.)
25-28	Connectivity lost zone 9 – 12.	Wiring centre has lost connection with thermostat of the given zone: e.g. 26 = with zone 9; 27 = with zone 10; 28 = with zone 11, 29 = with zone 12. Error is displayed on all thermostats.	Check the thermostat's power supply. Send the heating signal from thermostat. If necessary, reinstall the thermostat.

29	TRV gear defect.	TRV head has a problem with the internal gear mechanism.	Reinstall the TRV head or replace it. If necessary, contact Continal.
30	TRV failed adaptation.	Adaptation error of the TRV head assembled on the radiator valve insert.	Check assembly of the TRV head on radiator valve insert and reinstall the TRV head. Check the compatibility of the TRV head and radiator valve insert; replace the valve insert if necessary
31	Thermostat low battery	Thermostat's battery level is low (error is displayed only in the Smart Home app).	Replace the thermostat's batteries

32	Connectivity lost boiler receiver	The boiler receiver has lost connection with thermostat (error is displayed only in the Smart Home app.)	Check the thermostat's power supply. Force identification process from the coordinator / Quantum hub side and check if devices are within the network. Send the heating signal from thermostat side and check if boiler receiver is turning ON. If the top LED is flashing, perform the pairing procedure according to the boiler receiver manual instruction. Pair thermostat with the boiler receiver again according to the thermostat's manual instruction
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Product compliance and safety

Product compliance

This product complies with the essential requirements and other relevant provisions of Directives 2014/30/ EU, 2014/35/EU, 2014/53/EU and 2011/65/EU. 868.0-868.6MHz; <13dBm

Safety information



Use in accordance with national and EU regulations. The Quantum 39003-TSRF must be kept dry and is for indoor use only. Installation must be carried out by a qualified person in accordance with national and EU regulations. Disconnect your equipment before cleaning it with a dry cloth.

Want more information?

02 881 04 14

www.continal.be

Documents / Resources

<div><div>Quantum digital thermostat-RF</div><div></div><div><p>The Quantum digital thermostat-RF is a fully wireless, battery-powered thermostat that can be installed in a room, hallway or outside the room. It is designed to be used with the Continal 39003-TSRF underfloor heating system.</p><p>Key features include:</p><ul style="list-style-type: none">• Fully wireless• Battery-powered• Remote control via RF• Programmable• Easy to install• Compact design• Suitable for use in rooms, hallways or outside the room• Suitable for use with the Continal 39003-TSRF underfloor heating system</div></div>	<p>Continal 39003-TSRF Quantum Digital Thermostat-RF [pdf] Instruction Manual 39003-TSRF Quantum Digital Thermostat-RF, 39003-TSRF, Quantum Digital Thermostat-RF</p>
<div><div>Quantum digital thermostat-RF</div><div></div><div><p>The Quantum digital thermostat-RF is a fully wireless, battery-powered thermostat that can be installed in a room, hallway or outside the room. It is designed to be used with the Continal 39003-TSRF underfloor heating system.</p><p>Key features include:</p><ul style="list-style-type: none">• Fully wireless• Battery-powered• Remote control via RF• Programmable• Easy to install• Compact design• Suitable for use in rooms, hallways or outside the room• Suitable for use with the Continal 39003-TSRF underfloor heating system</div></div>	<p>Continal 39003-TSRF Quantum Digital Thermostat-RF [pdf] Instruction Manual 39003-TSRF Quantum Digital Thermostat-RF, 39003-TSRF, Quantum Digital Thermostat-RF</p>

References

- [Quantum controls | Continal Underfloor Heating](#)
- [Continal Underfloor Heating | Underfloor heating systems](#)