

# SALUS<sup>®</sup> | QUANTUM

CONTROLS

## SQ610 | SMART THERMOSTAT



SALUS SMART HOME  
READY



WIRELESS  
CONTROL



230V POWER  
SUPPLY



COMFORT  
OF A WARM FLOOR



EASY  
INSTALLATION



MULTIFUNCTIONALITY



HUMIDITY  
SENSOR



## Introduction

**The SQ610 Quantum** is a ZigBee temperature controller for wireless control of iT600 series devices, such as the KL08RF wiring centre, mini TRV head, RX10RF boiler control module.

In order to control SQ610 over the Internet or via the **SALUS Smart Home** mobile app (**ONLINE mode**), it must be installed together with the UGE600 Internet gateway (sold separately). From the application level, it is possible to pair SQ610 with other system elements, e.g. Smart Plug SPE600, Smart Relay SR600 or window/door sensor OS600/SW600.

SQ610 can be used locally without an Internet connection (**OFFLINE mode**), however, its communication with other devices must be done using the CO10RF coordinator (sold separately).

THERMOSTAT SQ610 Quantum can work without Universal Gateway or CO10RF Coordinator as a standalone device.

**Full manual in PDF format is available at [www.salus-controls.eu](http://www.salus-controls.eu) site.**

## 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. The full text of the EU Declaration of Conformity is available at the following internet address: [www.saluslegal.com](http://www.saluslegal.com).



## Safety Information

Use in accordance to national and EU regulations. Use the device as intended, keeping it in dry condition. Product for indoor use only. Installation must be carried out by a qualified person in accordance to national and EU regulations. Disconnect your equipment before cleaning it with a dry cloth.



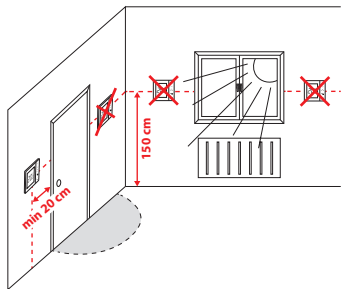
## Warning:

Please always ensure the AC 230V mains power is switched off before installing or working on any components.

### Package Content:

- 1) SQ610 Quantum Thermostat
- 2) Mounting screws
- 3) Manual instruction

## Before you start: Select correct thermostat location

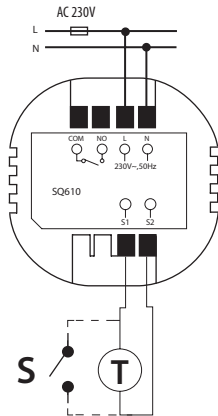


Mounting: to mount thermostat you can use included accessories (mounting screws). Remove plate from the back to mount it to the wall. After that just put thermostat on the plate.

### Please note:

The ideal position to thermostat mounting is about 1,5m under floor level far from heating or cooling sources. Thermostat can't be exposed to sunlight or any extreme conditions like for example draft.

## Wiring diagram:



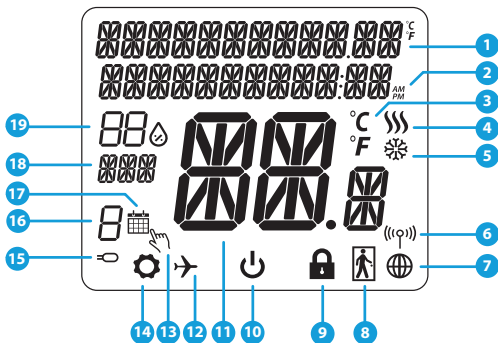
### Symbols explanation:

- S - volt-free contact
- T - temperature sensor
- L, N - 230V AC power supply
- COM, NO - Voltage free output






### S1,S2 Terminals:

- air or floor temperature sensor
- external volt-free contact to connect any ON/OFF switch or occupancy sensor (Hotel card)

# LCD Icon Description



- |    |  |     |  |
|----|--|-----|--|
| 1. | Menu/Settings description + Clock                                  | 10. | Standby mode icon                          |
| 2. | AM/PM  | 11. | Current Temperature / Setpoint Temperature |
| 3. | Temperature unit   | 12. | Holiday mode                               |
| 4. | Heating indicator (icon is animating when there is heating demand) | 13. | Temporary override mode                    |
| 5. | Cooling indicator (icon is animating when there is cooling demand) | 14. | Settings icon                              |
| 6. | RF Connection indicator  | 15. | External / Floor temp sensor indicator     |
| 7. | Internet connection indicator                                      | 16. | Schedule program number                    |
| 8. | Occupancy sensor (hotel card)                                      | 17. | Schedule mode icon                         |
| 9. | Key lock function  | 18. | Day indicator/ SET information             |
|    |  | 19. | Current Humidity value                     |

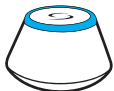
<b>Buttons Description</b>	
<b>Button</b>	<b>Function</b>
	<ol style="list-style-type: none"> <li>1) Menu button / Return button.</li> <li>2) In the MAIN SCREEN: Press and hold for 3 sec to change the thermostat operating mode (Schedule mode / Permanent mode / Temporary override mode).</li> <li>3) In the SETTINGS SCREEN: Press and hold for 3 sec to go back without saving the changes.</li> <li>4) In the PAIRING SCREEN (in SYSTEM TYPE Menu): Press and hold for 3 sec to see other pairing options.</li> </ol>
	„Down” Button (Decrease parameter value/moving on the menu in ‘DOWN’ direction)
	“Up” Button (Increase parameter value/moving on the menu in ‘UP’ direction)
	<ol style="list-style-type: none"> <li>1) “OK / Tick” Button (Confirm parameter value / Go to the next menu / Save settings)</li> <li>2) In the MAIN SCREEN: Press and hold for 3 seconds to enter Standby mode</li> <li>3) In the SETTINGS SCREEN: Press and hold for 3 sec to go back to the MAIN SCREEN &amp; SAVE all the changes.</li> </ol>
	In the MAIN SCREEN - press and hold these buttons together for 3 seconds to LOCK / UNLOCK the Thermostat keys).

## COMPATIBILITY WITH OTHER SALUS CONTROLS DEVICES

Quantum Thermostat can work in **ONLINE** or **OFFLINE** mode. \*

At first step you need to decide in which mode your thermostat will work.

### ONLINE MODE



**Universal Gateway is CONNECTED TO THE INTERNET**

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

Download the Smart Home App on your iOS or Android device for remote access to your SALUS equipment.



SALUS  
Smart Home



### OFFLINE MODE



**Universal Gateway is NOT CONNECTED TO THE INTERNET**

You can use your devices locally without the SmartHome App. Gateway works in this mode as standard ZigBee coordinator.

OR



**C010RF Coordinator** - You can use standard ZigBee network coordinator to install and use your devices.

### Compatible devices:



**SR600\***  
Smart Relay



**SPE600\***  
Smart Plug



**KL08RF**  
Wiring Centre for 8-zone  
underfloor heating (UFH).



**TRV**  
(Thermostatic  
Radiator Valve) with  
wireless communication.



**RX10RF**  
receiver

\*Only with Online Mode



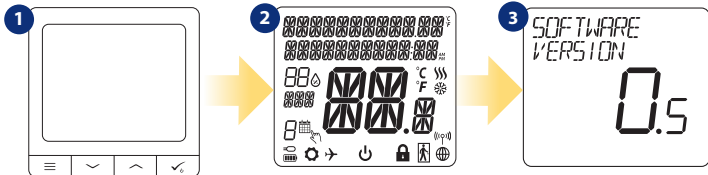
**Please note:**

**SQ610 Quantum Thermostat can work without coordinators (ONLINE/OFFLINE MODE) as a standalone device with the wires use.**

## First power up sequence

### Please note:

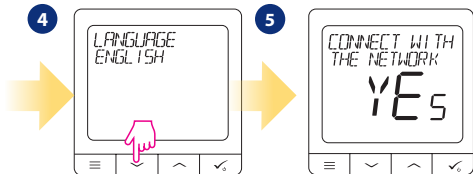
For easier installation, please make sure you have already added other devices to your ZigBee network, such as Underfloor Heating Control Box (KL08RF) or Radiator heads (TRV's) etc.



To power on the Thermostat you have to connect it to the 230V power then...

...display will show all icons...

...then thermostat will display the software version.



Now, choose your language by "v" or "^" buttons. Confirm your language by ✓ button.

### YES - ONLINE, OFFLINE MODE.

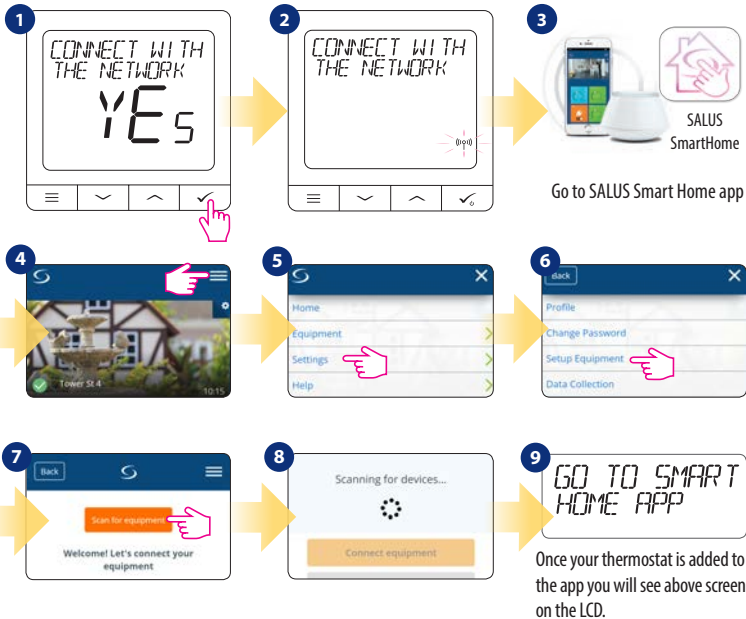
You can configure your thermostat with universal gateway or CO10RF coordinator. That is, add it to the Salus Smart Home system.

### NO - STANDALONE.

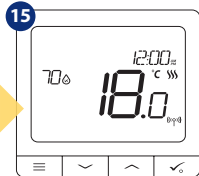
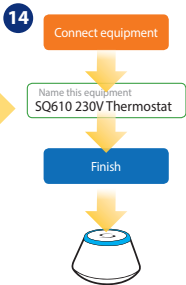
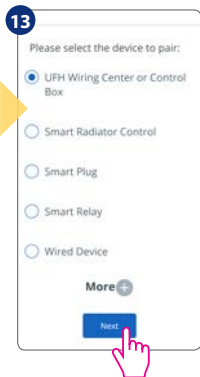
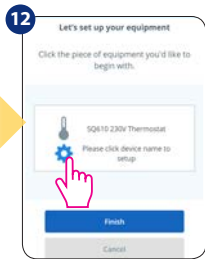
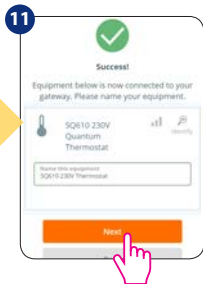
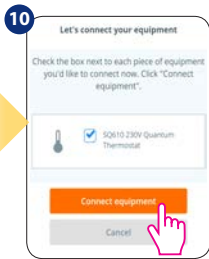
Thermostat work as a standalone device for pump, boiler, receivers etc. That is, you can directly connect thermostat to selected device without any network system. You can add it later anytime.

# Installation in ONLINE mode

After Language selection follow below steps to add your device to the Smart Home app and pair with other devices:





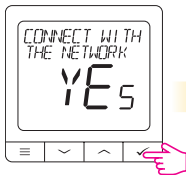


After that thermostat will show main screen.  
Congratulations!  
You successfully configured SQ610 Quantum Thermostat.

# Installation in OFFLINE mode

**Pairing with Wiring Centre / Control Box** (Install the Wiring Centre / Control Box according to the instructions included with product)

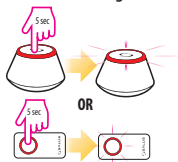
1



2

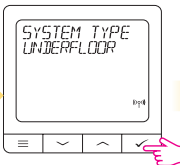


3



Open the ZigBee network

4



5



6



Select system type: UNDERFLOOR, press ✓ button to confirm

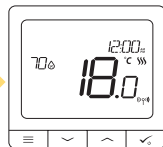
Using  $\downarrow$  and  $\uparrow$  buttons select the Control Box number (press PAIR button on the Control Box to see its address number). Press ✓ button to confirm

Use  $\downarrow$  or  $\uparrow$  buttons to select the zone number and press ✓ button to confirm.

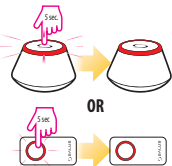
7



8




9




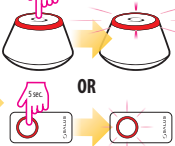
Close the ZigBee network

Now you can pair your thermostat with additional zones. Select one more zone or finish the pairing process by ✓ button.

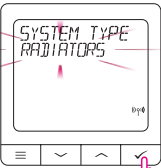
## Pairing with TRV radiator head (Install the TRV according to the instructions included with product)

- 


1
- 

2
- 

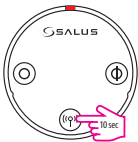
3

Open the ZigBee network
- 


4

Select system type:  
RADIATORS
- 

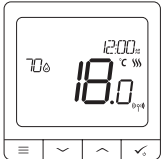
5

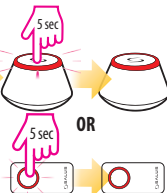
Now hold antenna button for 10 sec. on all TRV's which you want to pair with your Thermostat.
- 

6

You can pair up to 6 TRV's with 1 Thermostat. All TRV's have to within the same room with Thermostat.
- 

7

On the LCD you will see the number of paired TRV's. Once all TRV's are paired - press ✓ button to finish the pairing process.
- 

8
- 

9

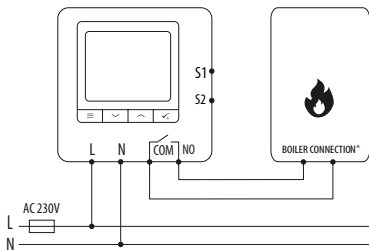
Close the ZigBee network

## Wired device

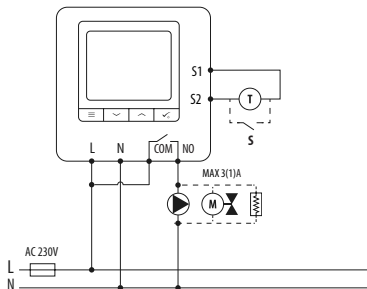
### Please note:

Thermostat SQ610 Quantum can work without Universal Gateway or CO10RF Coordinator as a standalone device.

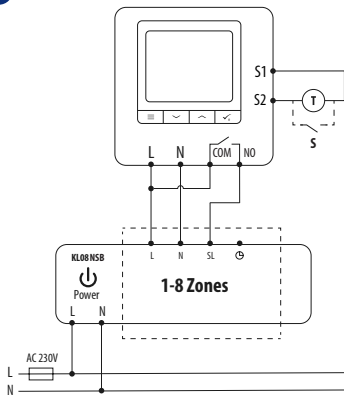
- 1 Wiring diagram for volt-free connection (e.g. boiler control):







- 2 Wiring diagram for 230VAC connections:



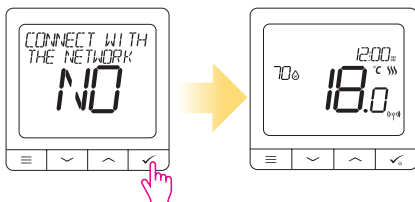
### 3 Wiring diagram for control box connection:



#### Legend:

-  Pump
-  Valve actuator
-  Heating mat
-  Boiler

Boiler connection \* - Boiler's contacts for ON/OFF thermostat (according to the boiler's instructions)



### Please note:

Self-acting SQ610 Quantum Thermostat without application support can be easily added to the Smart Home app anytime. All settings made before adding to the application are automatically copied to the Smart Home app.

# SQ610 Full menu structure



## Main menu

### 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 TEMP SETPOINT  
HEAT/COOL  
RESET USER SETTINGS

### Admin settings

TEMPERATURE SCALE  
DISPLAY TEMPERATURE RESOLUTION <sup>1.</sup>  
HEAT CONTROL ALGORITHM <sup>2.</sup>  
COOL CONTROL ALGORITHM  
S1/S2 INPUT <sup>3.</sup>  
MINIMUM SETPOINT  
MAXIMUM SETPOINT  
VALVE PROTECTION <sup>4.</sup>  
INTERNAL RELAY (NO / NC) <sup>5.</sup>  
MINIMUM TURN OFF TIME <sup>6.</sup>  
OPTIMISATION FEATURE <sup>7.</sup>  
COMFORT WARM FLOOR <sup>8.</sup>  
PIN CODE  
DEVICE INFORMATION <sup>9.</sup>  
CONNECT WITH GATEWAY  
**FACTORY RESET <sup>10.\*</sup>**

### Language

ENGLISH  
DANISH  
POLISH  
...

## Short description of some selected functions (all functions are described in the full version of the SQ610 manual):

- 1. DISPLAY TEMP RESOLUTION:** This function determines the resolution of the displayed temperature (0.5°C or 0.1°C).
- 2. CONTROL ALGORITHM:** This function defines how to control the room temperature. Available options are: ITLC for Underfloor Heating / Radiators / Electrical Heating (that's advanced algorithm for precise maintenance of room temperature), hysteresis +/-0.5°C or +/-0.25°C, THB Actuator (option recommended for systems with THB auto balancing actuators).
- 3. S1/S2 INPUT:** A floor sensor, an external temperature sensor or an occupancy sensor can be connected to the S1/S2 input of SQ610RF. Additionally, by connecting a NO type of ON/OFF voltage-free contact, you can use this input as a OneTouch rules trigger (programmed in the Salus Smart Home app) or as a Heat/Cool changeover.
- 4. VALVE PROTECTION:** This function activates all actuators once a week for 5 minutes (in summer, this function helps to prevent the actuators stuck).
- 5. INTERNAL RELAY (COM/NO):** Internal relay activation or deactivation with COM/NO outputs use. Default is enable.
- 6. MIN TURN OFF TIME:** Minimum switch-off time (thermostat will not send the signal for heating/cooling more often than specified in this parameter).
- 7. OPTIMISATION FEATURE:** Optimum Start and Optimum Stop functions are energy saving feature that makes thermostat most cost effective (in combination with ITLC control algorithm).
- 8. 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. User can select 3 levels of warm floor feature. 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. It is COMFORT feature which keeps your floor warm all the time.
- 9. DEVICE INFORMATION:** In this menu user can check: Software Version, RF range value, Paired devices or also user can activate Identification mode.
- \*10. FACTORY RESET:** Here you can RESET your device to factory settings. After successful reset device will be removed from ZigBee network and you will need to add / pair your device again.

# SALUS<sup>®</sup>

CONTROLS

# QUANTUM

SQ610 THERMOSTAT



- ✓ **Ultra slim**
- ✓ **Precise temperature control** (underfloor heating, radiator heating, electrical heating)
- ✓ **Works with:** Amazon Alexa and Google Home
- ✓ **Built-in voltage free contact**



### Universal Gateway

Connect it with *Universal Gateway* and setup your own SALUS Smart Home system.



### Smart Radiator Control

Pair it with *Quantum* to achieve the perfect temperature everywhere, not only beside the radiator.



### Smart Relay

Connect it with *Universal Gateway* and control wirelessly pumps, valves, boilers, lighting etc.



[www.salus-controls.com](http://www.salus-controls.com)



[www.salus-smarthome.com](http://www.salus-smarthome.com)

