

SQ610 | SMART THERMOSTAT









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 SQ61 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, it's 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 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.

\land 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.

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.





Symbols explanation:

S - volt-free contact

- T temperature sensor
- L, N 230V AC pover 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
- 2. AM/PM
- 3. Temperature unit
- 4. Heating indicator (icon is animating when there is heating demand)
- 5. Cooling indicator (icon is animating when there is cooling demand)
- 6. RF Connection indicator
- 7. Internet connection indicator
- 8. Occupancy sensor (hotel card)
- 9. Key lock function

- 10. Standby mode icon
- 11. Current Temperature / Setpoint Temperature
- 12. Holiday mode
- 13. Temporary override mode
- 14. Settings icon
- 15. External / Floor temp sensor indicator
- 16. Schedule program number
- 17. Schedule mode icon
- 18. Day indicator/ SET information
- 19. Current Humidity value

Buttons Description	
Button	Function
=	 Menu button / Return button. In the MAIN SCREEN: Press and hold for 3 sec to change the thermostat operating mode (Schedule mode / Permanent mode / Temporary override mode). In the SETTINGS SCREEN: Press and hold for 3 sec to go back without saving the changes. In the PAIRING SCREEN (in SYSTEM TYPE Menu): Press and hold for 3 sec to see other pairing options.
\sim	"Down" Button (Decrease parameter value/moving on the menu in 'DOWN' direction)
	"Up" Button (Increase parameter value/moving on the menu in 'UP' direction)
√ ⊎	1) "OK / Tick" Button (Confirm parameter value / Go to the next menu / Save settings) 2) In the MAIN SCREEN: Press and hold for 3 seconds to enter Standby mode 3) In the SETTINGS SCREEN: Press and hold for 3 sec to go back to the MAIN SCREEN & SAVE all the changes.
\rightarrow +	In the MAIN SCREEN - press and hold these buttons together for 3 seconds to LOCK / UNLOCK the Thermostat keys).

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COMPATIBILTY 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



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

Google Play App Store SALUS Smart Home

Compatibile devices:





Smart Plug

KLO8RF - Wiring Centre for 8-zone underfloor heating (UFH).



RX10RF TRV (Thermostatic Radiator Valve) with receiver wireless communication.

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

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.

OFFLINE MODE

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OR

CO10RF Coordinator - You can use standard ZigBee network coordinator to install and use your devices.

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...

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...display will show all icons...



Now, choose your language by " or " " buttons. Confirm your language by 🗸 button.

...then thermostat will display the software version.

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 anvtime.

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Installation in ONLINE mode

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







Go to SALUS Smart Home app









9 60 TO SMART HOME APP

Once your thermostat is added to the app you will see above screen on the LCD.



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Installation in OFFLINE mode

more zone or finish the pairing

process by \checkmark_{\odot} button.

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



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



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✓ button to finish the pairing process.

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Wired device

<u> Please</u> 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:





Wiring diagram for control box connection:





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🕂 Please note:

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CONNECT WITH THE NETWORK

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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.

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12:00:

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SQ610 Full menu structure

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 ^{1.} HEAT CONTROL ALGORITHM ^{2.} COOL CONTROL ALGORITHM S1/52 INPUT ^{3.} MINIMUM SETPOINT WAXIMUM SETPOINT VALVE PROTECTION ^{4.} INTERNAL RELAY (NO / NC) ^{5.} MINIMUM TURN OFF TIME ^{6.} OPTIMISATION FEATURE ^{7.} COMFORT WARM FLOOR ^{8.} PIN CODE DEVICE INFORMATION ^{9.} CONNECT WITH GATEWAY FACTORY RESET * ^{10.}
Language	ENGLISH DANISH POLISH

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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 successfull reset device will be removed from ZigBee network and you will need to add / pair your device again.

Main menu