

KL08RF 24V WIRELESS CONTROL SYSTEM FOR ZIGBEE NETWORK (8 ZONES), 24 V AC QUICK GUIDE

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Introduction

The KL08RF24 wireless control unit is part of the iT600RF system. When used in combination with the wireless thermostats from the iT600RF series, the KL08RF24 ensures comfortable and reliable heating control. It is equipped with control relays for the pump and boiler and is designed to work with NC or NO actuators.

In offline mode, communication with the iT600RF series wireless thermostats must take place via the C010RF coordinator unit, which is included in the pack alongside the wiring centre. To operate in online mode (via the SALUS Premium Lite app), the KL08RF24 must be connected to the UGE600/UG800 internet gateway. In a ZigBee network (online or offline), up to 9 KL08RF24 control units can be connected. The KL08RF24 extends the range of the ZigBee network.

Conformity of the product

This product complies with the essential requirements and other relevant provisions of the following Directives: GPSR 2023/988/EU, EMC 2024/2749/EU, LVD 2014/35/EU, RED 2025/138/EU, REACH SVHC 253, RoHS 2015/863/EU and RoHS 2017/2102/EU. The full text of the EU Declaration of Conformity is available at the following web address: www.saluslegal.com.

Safety information

Use in accordance with applicable regulations. For indoor use only. Ensure that the unit is kept completely dry. Unplug the unit before cleaning it with a dry cloth. This accessory must be fitted by a qualified person, and the installation must comply with the guidelines, standards and regulations applicable in the city, country or state where the product is installed. Failure to comply with the relevant standards may result in legal action.

Technical information

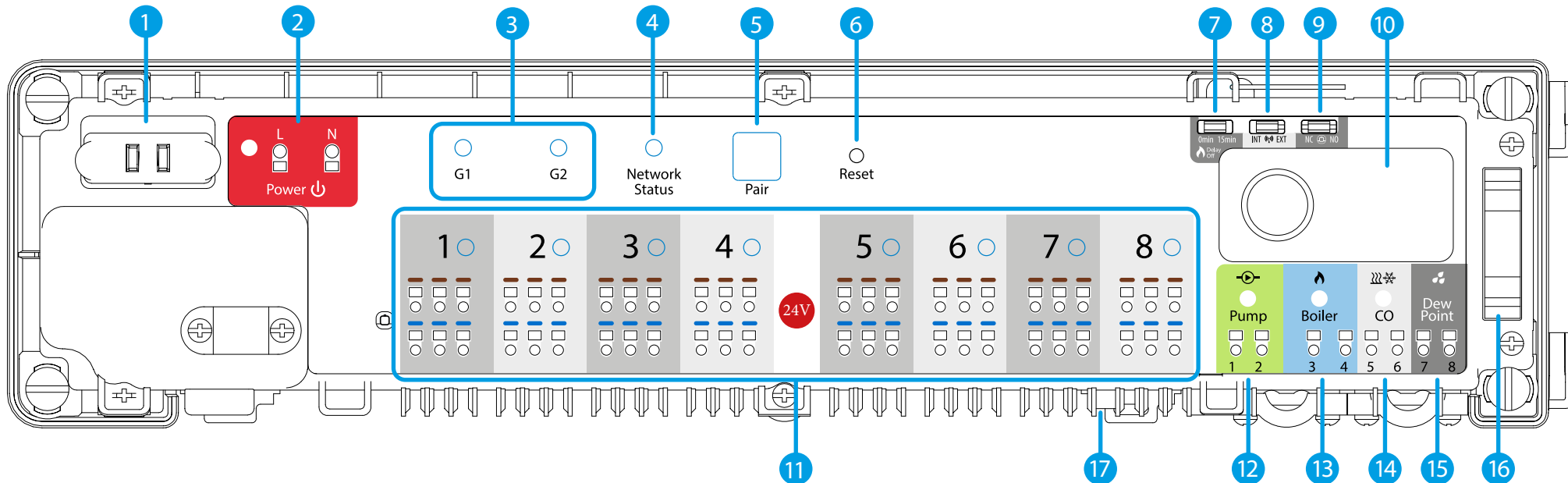
Power supply	230 V AC
Maximum load	3 A
Entrances	CO-terminal Dew point sensor (humidity controller)
Relays / Outputs	Pump control Boiler control Terminals for actuators
Radio frequency	ZigBee 2,4 GHz
Dimensions [mm]	355x83x67

Description of the control centre

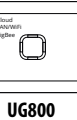
1. Cartridge fuse switch 5 x 20 mm, 250 V, T1.6 A
2. Power supply
3. Thermostat group status
4. Network status LED
5. Pairing button
6. Reset button

7. Delay jumper
8. Indoor/outdoor aerial cable
9. NC/NO actuator bridge
10. ZigBee network coordinator
11. Terminals for 24 V actuators
12. Delay in pump control

13. Relay for boiler control
14. CO-terminal
15. Input for dew point sensor (humidity controller)
16. Serial connector for the KL04RF24 expansion module
17. External antenna socket



Please note: Do not use the C010RF coordinator together with the UGE600 or UG800 at the same time!



UGE600

UG800



◀ RX10RF & RX30RF Boiler Receiver (optional)

An additional wireless control module, which can be used, for example, when it is not possible to run a cable between the KL08RF 24V control unit and the boiler.

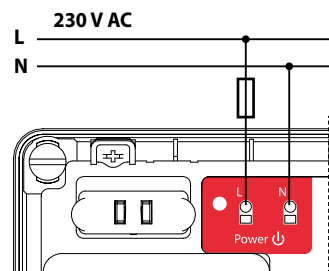
1. Safety



Please note: The fuse must be replaced once the distribution board has been disconnected from the 230 V alternating current supply.

The main circuit breaker is located under the cabinet cover near the main terminals and protects the distribution board and the appliances powered by it. Use a 5 x 20 mm – 250 V, T1.6 A cartridge fuse. To remove the circuit breaker, lift the socket with a flat-bladed screwdriver and pull the circuit breaker out.

2. Power supply



The distribution board is designed to be connected to a voltage of 230 V~, 50 Hz.

Installation features:
• two-wire connection
• manufactured in accordance with the applicable regulations.
The KL08RF24 control unit has a built-in 230 V/24 V power supply. Only 24 V actuators may be used. The KL08RF24 can control up to 24 actuators.

3. Status of thermostat grouping

This function is only available in offline mode (in conjunction with the C010RF coordinator) – this means that MASTER thermostats will control the SLAVE thermostats within a specific group, which is only possible when the thermostats are paired with a KL08RF24 control unit (optional + KL04RF24) and have been assigned to group 1 or group 2.



Bemærk: Within a group, there must be only one MASTER thermostat (programmable), whilst the others must be SLAVE thermostats (non-programmable).

Here's how it works:

If all thermostats in a given group are operating in automatic mode, each individual thermostat in the group will operate in the same way as the group's MASTER. If, for example, the MASTER thermostat in group 1 maintains a comfort mode in accordance with the programmed schedule, all SLAVE thermostats in group 1 will also maintain the comfort mode (the temperature is set individually for each thermostat). Similarly, the SLAVE thermostats in the group will also operate in these modes if the MASTER thermostat is set to party or holiday mode.



The grouping function is optional – the thermostats do not need to be grouped; they can operate independently of one another.

4. Network status LED

LED status:



The LED is flashing (once per second) – this means that the control unit is not connected to the network, but is ready to be paired with the coordinator (C010RF) in the ZigBee network or the internet gateway (UGE600/UG800).



The LED flashes twice and then pauses. The device has been removed from the network, or the network has been reset. Briefly press the reset button to put the KL08RF24 into pairing mode.



(The LED is lit continuously) – this means that the control unit has been added to the ZigBee network and paired with the C010RF or UGE600 / UG800.

5. Pairing button

Functions of the 'Pair' button:

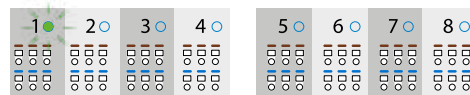


C- Checking the control centre's address in the Zigbee network. To check the control centre's address in the Zigbee network (if more than one is in use), press the Pair button.

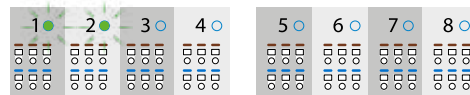
SP = Short press

The cable centre's number is indicated by the number of LEDs for each zone:

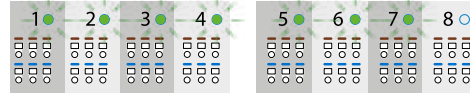
Address 1



Address 2



Address 7



Address 9 is indicated by all 8 LEDs for all zones, as well as the network status LED, being lit.



ID mode is activated when the device (G1 and G2) starts to flash. During this period, all devices on the network can be identified for 10 minutes. To exit ID mode, press and hold the Pair button for 5 seconds.



- Resetting the control unit
(This function is described in detail on the second page of the manual).

6. Reset button



- It is used to update the data after moving jumpers 7, 8 or 9, or to put the device into pairing mode following a network reset
The reset button does not remove the control unit from the ZigBee network.

7. Delay time



Delay time for boiler shutdown.



Please note: The pump (pump relay) and the boiler (boiler relay) always start 3 minutes after receiving the heating signal from any thermostat connected to the control unit. The pump stops after 3 minutes, when the last thermostat stops sending a heating demand, whilst the heat source (boiler) switches off after the time set by the jumper.



Changes to the jumper settings must be updated in the memory by pressing the Reset button (short press).

8. Coaxial cable for indoor/outdoor antenna



It is possible to connect the external 08RFA antenna to the control unit. If you are using an external antenna, set the jumper to the EXT position.



Changes to the jumper settings must be updated in the memory by pressing the Reset button (short press).

9. Bridge connection to NC/NO actuators



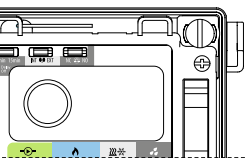
Select the type of thermoelectric actuator connected to the control unit:

NC – actuator, normally closed
NO – the actuator is normally open



Changes to the jumper settings must be updated in the memory by pressing the Reset button (short press).

10. ZigBee network coordinator



The C010RF ZigBee network coordinator is used in offline mode and is supplied with the wiring centre. The C010RF enables wireless control of all devices installed in a network. Up to 9 control units can be connected in a network. This means that if there is more than one control unit in the network, you only need one coordinator and can store the others in a safe place.

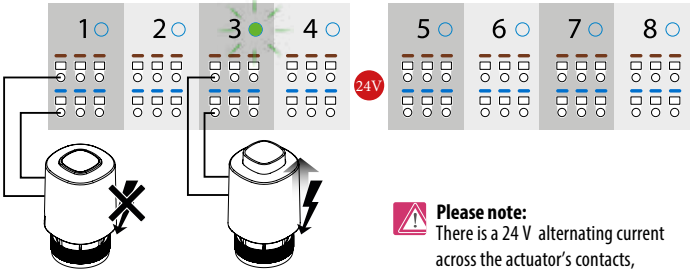
Please note: Do not use the C010RF coordinator with the UGE600 / UG800.

C010RF Operational information:

Normal operation		LED – lights up red.
Identification—function	SP = Short Press	Press briefly again to turn off the identification function. Identification is active. LED – flashing green.
Pairing devices		The network is ready to pair devices. LED – flashing red.
Factory Reset		This command resets the network. After a factory reset, all devices must be paired again.

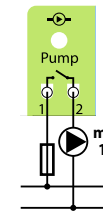
11. Terminals for actuators

The wires from the thermoelectric actuators must be connected to self-locking connectors in the relevant zones. Up to three actuators can be connected directly to a single zone. The power rating for a single zone is designed to drive up to three 24 V actuators with a power consumption of 2 W. A maximum of 24 actuators can be connected to the KL08RF24 control unit.



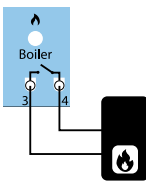
Please note: There is a 24 V alternating current across the actuator's contacts, when it is in operation.

12. Relay for pump control



Circulation pump relay – this is a potential-free relay (COM/NO) that controls the circulation pump in the heating/cooling system. The relay closes (the pump starts) 3 minutes after receiving the heating/cooling signal from one of the thermostats paired with the control unit. The relay opens (the pump stops) after 3 minutes when the last thermostat stops sending a signal indicating a need for heating or cooling.

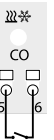
13. Relay for boiler control



The relay is inactive in cooling mode.

14. CO-terminal (input)

Open CO input contacts (switches) mean that the entire system is operating in heating mode. A short circuit at the CO input will automatically switch the entire system to cooling mode (the control unit and the connected thermostats).



CO-terminal	LED	Status
Open contacts	Red	Heating
Close contacts	Blue	Cooling

KL08RF supports heating and cooling operation when paired with compatible 2.4 GHz ZigBee wireless thermostats. Devices capable of operating in heating/cooling mode (when paired with KL08RF) include the Quantum Series (SQ610RF, SQ610, and SQ605RF), the iT600 Digital Series (VS10WRF, VS10BRF, VS20WRF, and VS20BRF), as well as the HTR Series (HTRS-RF(30), HTRP-RF(50), and HTR-RF(20)).

15. Dew point sensor input (humidity controller)

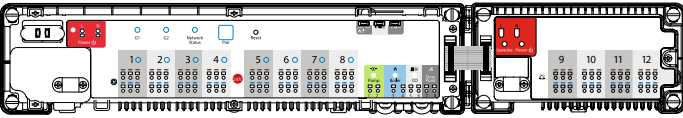


The dew point sensor input is only active in cooling mode (with the CO contacts).

If the contacts at the dew point sensor's input are short-circuited (due to high humidity), all zones in the control unit, as well as the outputs for the pump control, are switched off.

16. Serial connector for the KL04RF24 expansion module

It is used for communication between the KL08RF24 control unit and the KL04RF24 expansion module. The KL04RF24 expansion module enhances functionality and extends support to up to 12 zones.



17. External antenna socket

The external antenna socket 08RFA is located beneath the control unit, under zones 7 and 8. Once you have connected an additional antenna, set the jumper to the EXT position.

Changes to the jumper settings must be updated in the memory by pressing the Reset button (brief press).

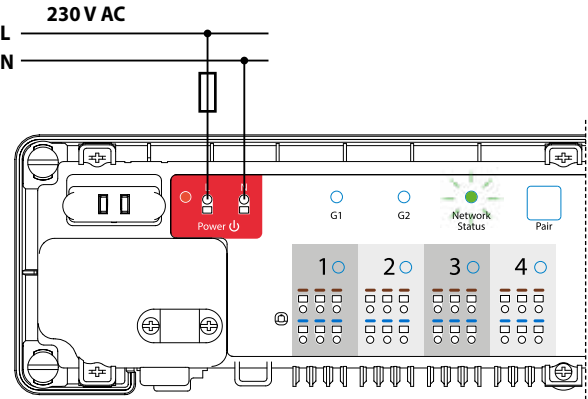


INSTALLATION

- Remove the top cover of the distribution board.
- For wall mounting, the main part of the housing must be unscrewed (see illustration). For mounting on a DIN rail the hooks on the rear of the housing must be folded up.
- Secure the back of the fuse box to the wall. Please note: The control unit can also be mounted on a DIN rail.
- Screw the main section of the cable management centre securely to the back of the cabinet.
- Remove the required length of insulation from the wires.
- Connect the power cable.
- Connect the remaining wires.
- Remove the CO10RF coordinator if you are using the UGE600 internet gateway.
- Make sure that all cables are connected correctly, and then connect the mains lead to the 230 V AC power supply – the red LED will light up.
- Once installation is complete, fit the top cover onto the distribution board.

INSTALLATION

- Connect the control unit to the 230 V AC mains supply. The network status LED will flash.



- Online**

Scan for equipment

Offline

Please note: Do not use the C010RF coordinator with the UGE600 / UG800.

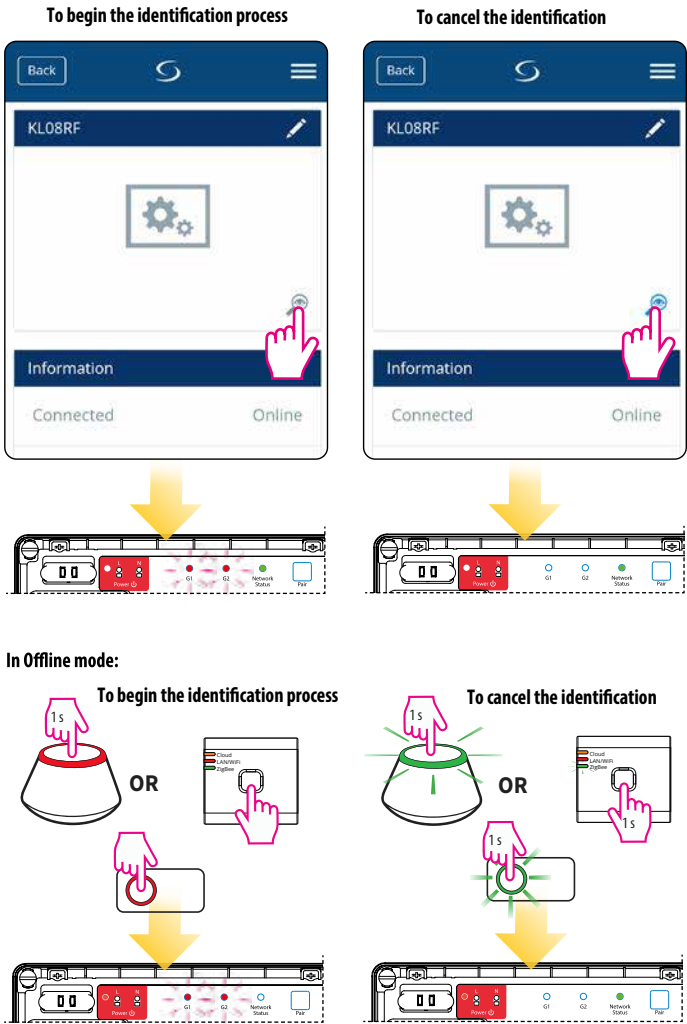
Open the ZigBee network

Close the ZigBee network
- The cable centre automatically connects to the network. The network status LED is lit steadily green.

Identification of the control centre

Follow the steps below to identify the control centre in the ZigBee network:

In online mode (using the SALUS Premium Lite app):



Factory settings

To restore the factory settings, press and hold the Pair button for 15 seconds. The G1 and G2 LEDs will light up red and then go out. Press the reset button to restart the device and put it back into pairing mode.

Please note: If you reset the control unit to its factory settings, all paired devices will be removed from the ZigBee network – you will need to pair them again.

