SALUS CONTROLS

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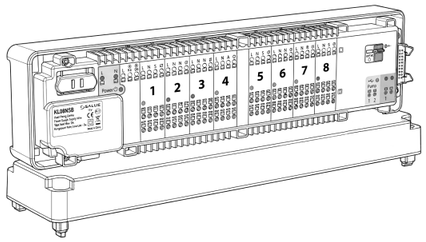

KL08NSB1 24V
WIRING CENTRE (8 zones) 24 V
QUICK GUIDE

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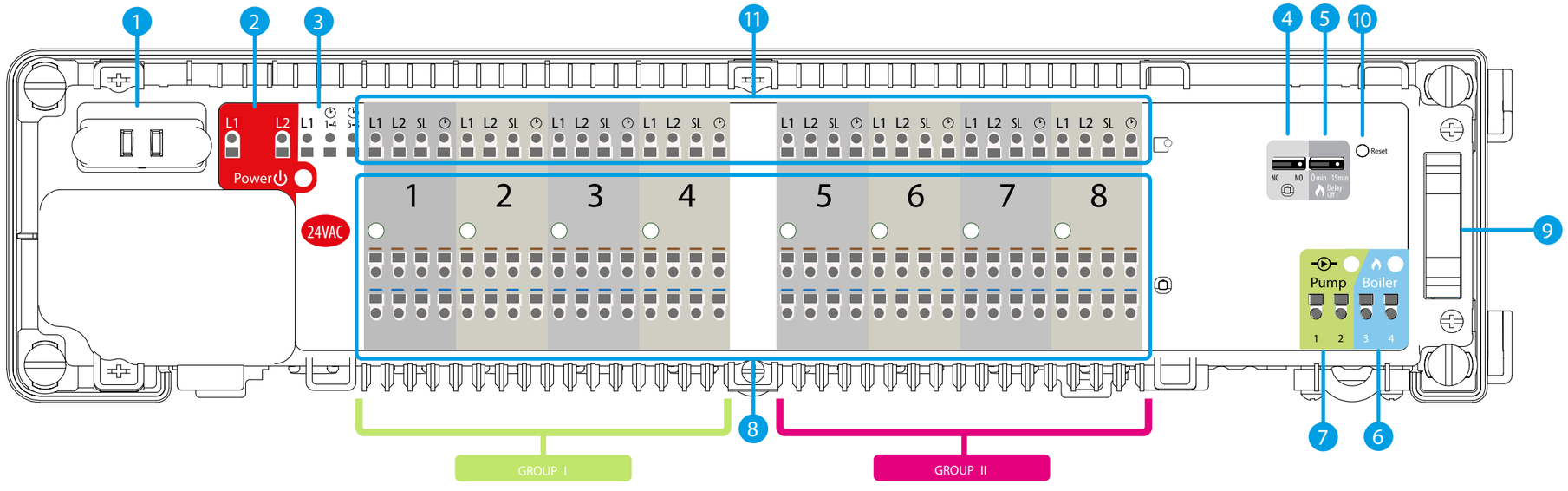
09/2026

Wiring centre description

1. Cartridge fuse 5 x 20 mm 12 A
2. Power supply
3. NSB function terminals
4. NC/NO jumper (actuator type)
5. Delay jumper
6. Boiler control output
7. Pump control output
8. Actuators connection
9. Serial connector for the KL04NSB1 24V extension
10. Reset button
11. Thermostats connection



Introduction

The KL08NSB1 24V wiring centre forms the heart of a Underfloor Heating controls system. It allows easy and quick connection of thermostats and actuators. It has integrated pump and boiler control module and overload protection. KL08NSB 24V wiring centre is adapted to work with NC and NO type actuators (normally closed and normally open). Up to 8 thermostats can be connected to the KL08NSB1 24V, while KL04NSB1 24V extension allows to connect additional 4 thermostats (12 in total).
NOTE: The KL08NSB1 requires a 24V/230V transformer (sold separately) for correct operation.

Product compliance

This product complies with the essential requirements and other relevant provisions of the GPSR 2023/988, EMC 2014/30/EU, LVD 2014/35/EU, RoHS 2015/863/EU amendment 2017/2102/EU, REACH 253 SVHC , amending Annex II to Directive 2011/65/EU of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment. The full text of the EU Declaration of Conformity is available at this web address: www.saluslegal.com.

Safety information

Use in accordance with national and EU regulations. Device is intended for indoor use only in dry conditions. Product for indoor use only. Installation must be carried out by a qualified person in accordance to national and EU regulations.
Before attempting to setup and install, make sure that KL08NSB1 24V is not connected to any power source. Installation must be carried out by a qualified person. Incorrect installation may cause damage to the wiring centre. The KL08NSB1 24V should not be installed in areas where it may be exposed to water or damp conditions.

Technical Information

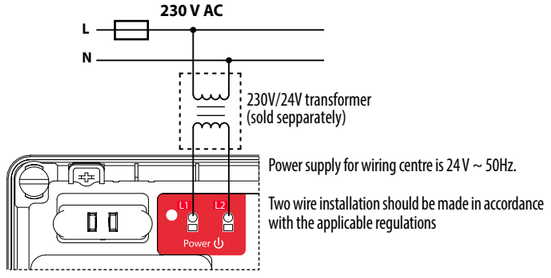
Power Supply	24 V AC 50 Hz
Total Load Max	5 A
Pump / Boiler Relay Load Max	3 A
Inputs	External clock (24 V)
Outputs	Pump control (NO/ COM) Boiler control (NO/COM) Terminals for actuators (24V)
Dimensions [mm]	355x 85x 67

1. Fuse

Note: Replace the fuse only when the wiring centre is disconnected from power supply (24 V ~).

Main fuse is located under the housing cover next to power supply terminals and secures the wiring centre and the devices connected to it. Use ceramic tube fast blow 250 V ROHS fuses (5x20 mm) with nominal max current 12,5 A. To replace fuse remove the fuse holder with a flat screwdriver and pull out the fuse.

2. Power Supply

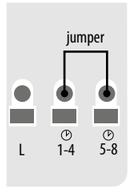


3. NSB (Night Set Back reduction) function and thermostats grouping

NSB function is activated in non-programmable Salus thermostats of the Expert, HTR series via external signal. NSB 24 V signal (night-time temperature reduction) is sent via an external timer or programmable thermostat connected to the KL08NSB1 24V wiring centre. Non-programmable thermostats are receiving NSB signal and reducing setpoint temperature (by switching to eco mode). All thermostats have to be connected using a 4-wire cable (min. 4 x 0,75 mm^2, max. 4 x 1,5 mm^2).

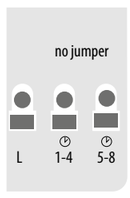
NSB function application in combination with thermostats grouping.

• OPTION 1



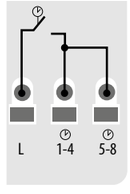
One Master thermostat which is common for thermostats from Group 1 and Group 2 (one programmable thermostat e.g. HTRP(50) 24V, other thermostats are non-programmable e.g. HTR(20) 24V).

• OPTION 2



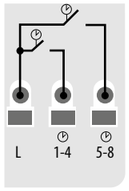
Two Master thermostats. One for Group 1 and one for Group 2 (two programmable thermostats e.g. HTRP(50) 24V, other thermostats are non-programmable e.g., HTR(20) 24V)).

• OPTION 3



One external clock which is common for thermostats from Group 1 and Group 2 (one external clock + daily regulators e.g. HTR(20) 24V)).

• OPTION 4



Two external clocks. One for Group 1 and one for Group 2 (two external clocks + non-programmable regulators e.g. HTR(20) 24V)).

4. NC/NO jumper



Select the type of the thermoelectric actuator connected to the wiring centre:
NC – actuator normally closed
NO – actuator normally opened

Jumper position change must be refreshed in the memory by pressing the Reset button (short press).

5. Delay jumper

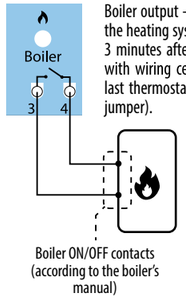


Boiler off delay time.

Note: Pump (Pump output) and boiler (Boiler output) always starts 3 minutes after receiving the heating signal from any thermostats connected to wiring centre. Pump stops 3 minutes after the last call for heating sent by the thermostat and the heat source (boiler) will turn off after the time set on Delay jumper.

Jumper position change must be refreshed in the memory by pressing the Reset button (short press).

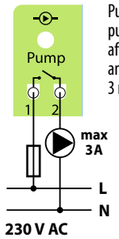
6. Boiler control output



Boiler output - this is a volt free output (COM / NO) that controls the boiler in the heating system. The output closes and the boiler turns on but always after 3 minutes after receiving the heating signal from any of thermostats paired with wiring centre. The output opens and the boiler switches off when the last thermostat stops sending heat demand (after the time set on the Delay jumper).

Boiler ON/OFF contacts (according to the boiler's manual)

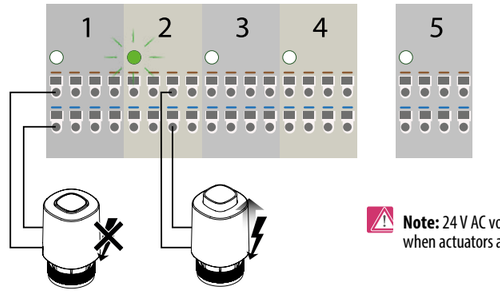
7. Pump control output



Pump output - this is a volt free output (COM / NO) that controls the circulation pump in the heating / cooling system. The output closes (pump starts) always after 3 minutes from the moment of receiving the heating / cooling signal from any of thermostats paired with wiring centre. The output opens (pump stops) 3 minutes after the last demand for heat/cool sent by the thermostat.

8. Actuators connection

The actuator wires should be secured with the self locking connectors in the appropriate zone. Up to 6 actuators with a load of up to 2 Watts each can be connected to a single zone. Should more than 6 actuators be required in a zone use an additional relay to relieve the output.

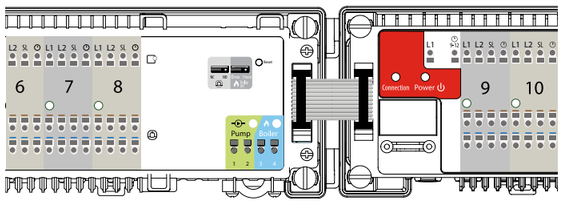


Example based on T30NC 24 V actuators

Note: 24 V AC voltage when actuators are live.

9. Serial connector for the KL04NSB1 24V extension

The Serial connector is used to connect the KL08NSB1 24V with the KL04NSB1 24V extension module to add functionality and support up to12 zones.

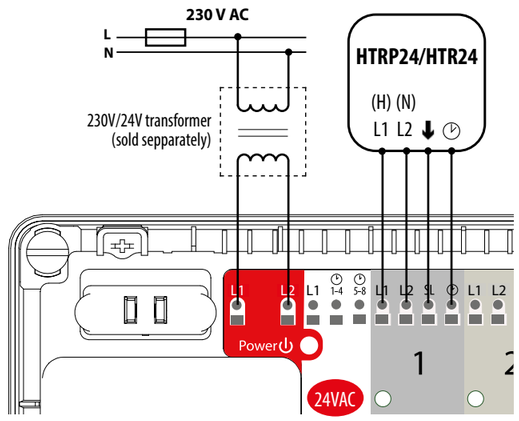


10. Reset button

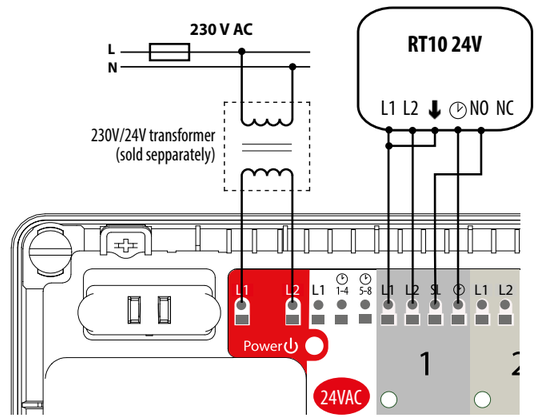
Reset - It is used to refresh the data, after switching jumpers 4 or 5.

11. Thermostats connection

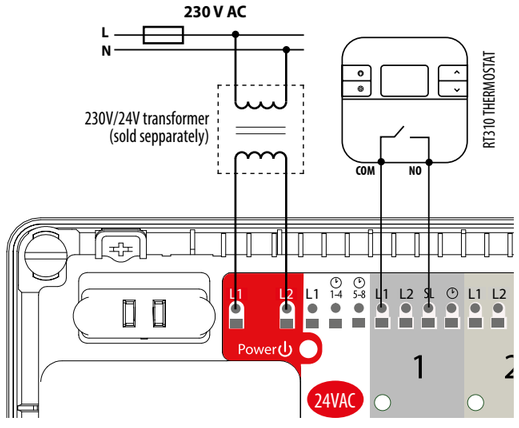
• Connecting the thermostat of HTR series with NSB function use



• Connecting the RT10 24V thermostat with NSB function use



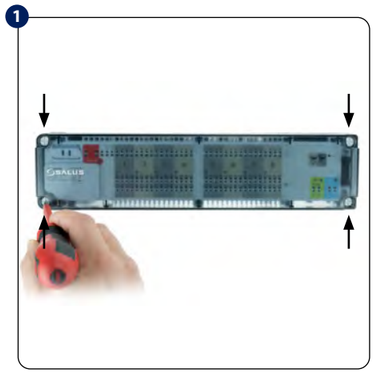
• Connecting ON/OFF battery-powered thermostat with voltage-free COM / NO output contacts (e.g. 091FL, RT310, RT510)



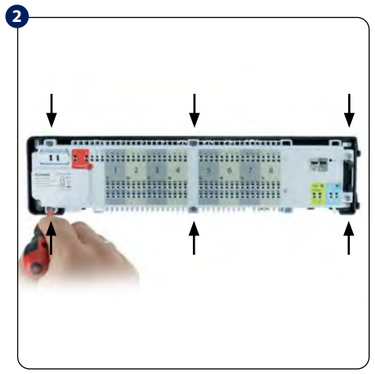
L1, L2	24V AC power supply
⏲	NSB function terminal
SL (↑)	Control signal for 24VAC actuators

Note: In NSB, HTR, ERT, BTR product series follow interchangeable signifying:
↑ = SL
⏲ = NSB

INSTALLATION



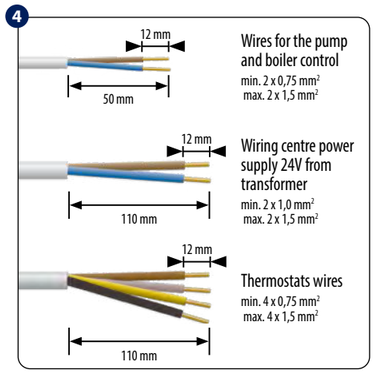
1 Remove the top cover of the wiring centre.



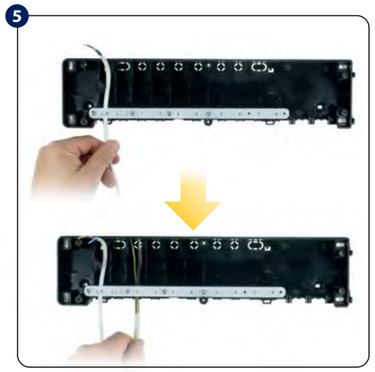
2 Unscrew the main housing (see picture).



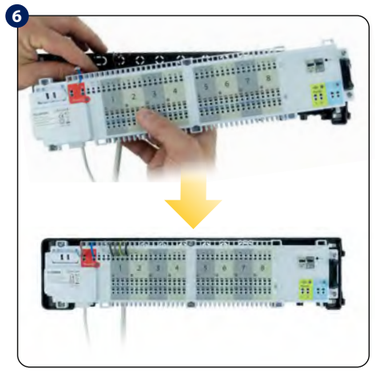
3 Mount the back side of the housing to the wall.
When mounting on a DIN rail, open the hooks on the back of the housing.



4 Remove the appropriate piece of insulation from the wires.



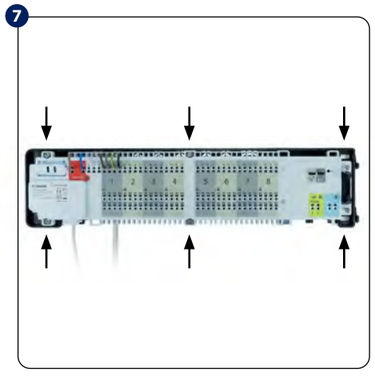
5 Thread the wires under the mounting belt in the back part of the wiring centre.



6 Thread the wires through the slots in the top part of the wiring centre and connect it to the terminals.

Set includes supplementary accessories (to support installation proces).

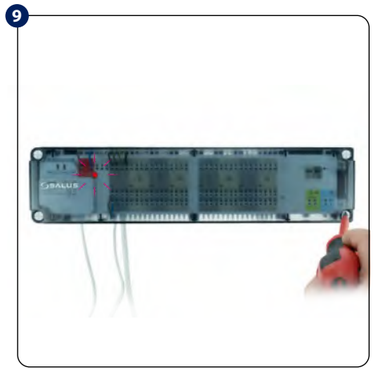




7 Adjust the wires and screw the main housing of the wiring centre to the rear housing.



8 Connect the thermoelectric actuators wires.



9 Make sure that all the wires are properly connected, mount top cover and power up the wiring centre - the red power indicator LED will illuminate.