

**Wiring Centre 24V**

Model: **CKL624N**



Quick Guide

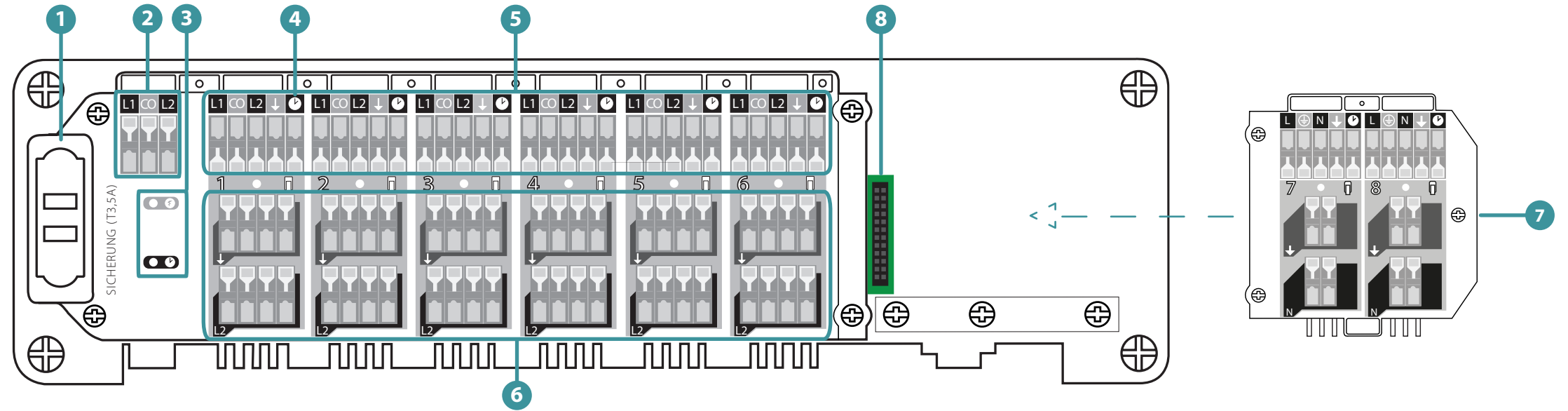
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V005



**WIRING CENTRE DESCRIPTION**

1. Cartridge fuse 5 x 20 mm 3,5 A
2. Power Supply
3. LED Diodes
4. NSB (Night Set Back reduction) function
5. Thermostats connection
6. Actuators connection
7. **CKZM** - 2-zone extension module (optional)
8. Serial connector for **CKZM** module



**INTRODUCTION**

The **CKL624N** wiring centre allows easy and quick connection of thermostats and actuators due to screwless, push type terminals.

It has a serial connector for the additional module (sold separately):

- **CKZM** 2-Zone Extension Module

The **CKL624N** wiring centre is adapted to work with all type of thermal (e.g. **CTS24**) and electronic (e.g. **STHB24**) actuators and maximum 6 thermostats.

**PRODUCT COMPLIANCE**

This product complies with the essential requirements and other relevant provisions of Directives: EMC 2014/30/EU, LVD 2014/35/EU and RoHS 2011/65/EU.

**SAFETY INFORMATION**

Use in accordance with the regulations. Indoor use only. Keep your device completely dry. Disconnect your device before cleaning it with a dry cloth. This accessory must be fitted by a competent person, and installation must comply with the guidance, standards and regulations applicable to the city, country or state where the product is installed. Failure to comply with the relevant standards could lead to prosecution.

Before any of operation related to power supply (connecting wires, installing the device, etc.), make sure that **CKL624N** is not connected to any power source. Incorrect connection of the wires may cause damage to the wiring centre. The **CKL624N** cannot be used in conditions of water vapor condensation neither exposed to water.

**TECHNICAL INFORMATION**

Power Supply	24 V AC 50 Hz
Max load	2,5 A
Outputs	Terminals for actuators (24 V)
Dimensions [mm]	330x92x65

**1. FUSE**

**Note:** Fuse replacement should be done when the wiring centre is disconnected from power supply 24 V AC.

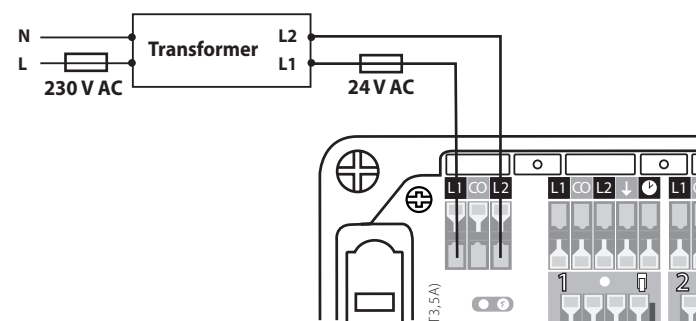
The mains fuse is located under the housing cover, next to main terminals and protects the wiring centre and devices powered by it. Use cartridge slow blow type (5 x 20 mm) with nominal max current 3,5A. To remove the fuse, lift the socket with a flat screwdriver and pull out the fuse.

**2. POWER SUPPLY**

Power supply for wiring centre is 24 V ~ 50Hz.

Features:

- three-wire installation,
- made in accordance with applicable regulations.



**3. LED DIODES**

- green LED diode indicates power supply connection (24 V AC)
- yellow LED diode indicates NSB function being activated

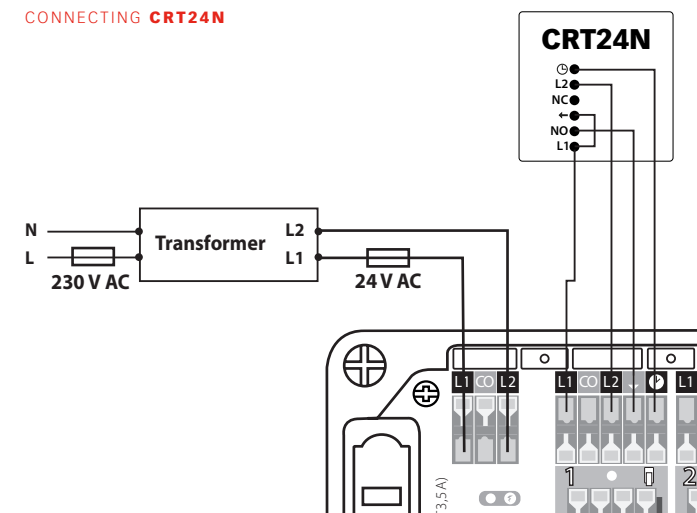
**4. NSB (NIGHT SET BACK REDUCTION) FUNCTION**

NSB function is activated in non-programmable **Cosmo** thermostats via external signal. NSB 24 V signal (night-time temperature reduction) is sent via an external timer or programmable thermostat connected to the **CKL624N** wiring centre.

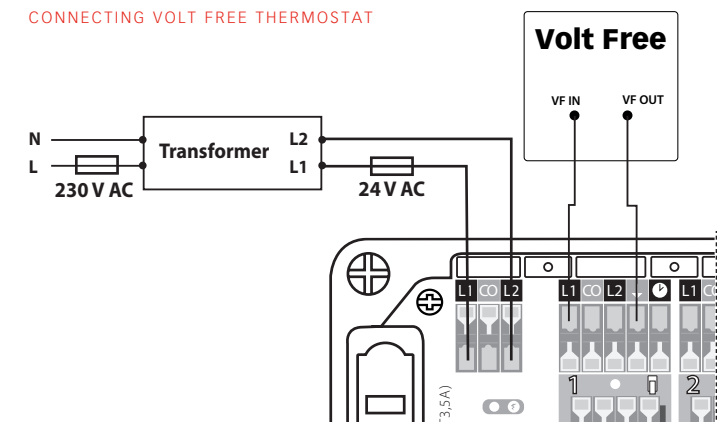
Non-programmable thermostats are receiving NSB signal and reducing setpoint temperature (by switching to eco mode). All thermostats have to be connected using a 4-wire cable (min. 4 x 0,75 mm<sup>2</sup>, max. 4 x 1,5 mm<sup>2</sup>).

**5. THERMOSTATS CONNECTION**

**CONNECTING CRT24N**

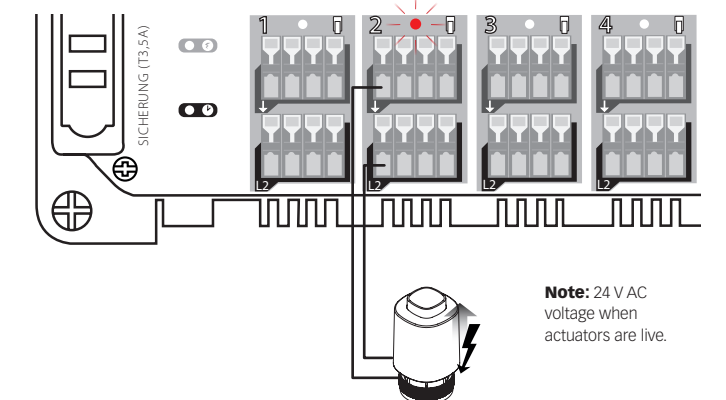


**CONNECTING VOLT FREE THERMOSTAT**



**6. ACTUATORS CONNECTION**

The actuator wires should be secured with the self locking connectors in the appropriate zone. Up to 4 thermal or electronic actuators can be connected to a single zone. The wires L1 and L2 of the actuators must be connected with ↓ pins and L2 pins of the Wiring Centre.



**Note:** 24 V AC voltage when actuators are live.

## 7. CKZM 2-ZONE EXTENSION MODULE (OPTIONAL)

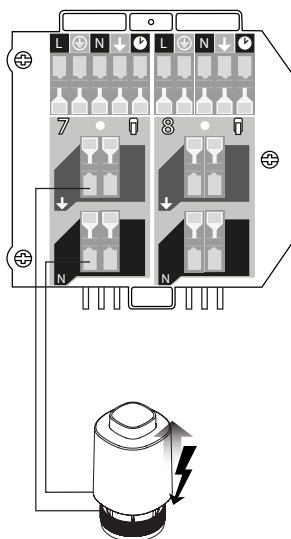
**CKZM** module extends the functionality of the **CKL624N** wiring centre. The module consists of 2 additional zones with the possibility of connecting 2 actuators to each one.

### TERMINALS DESCRIPTION

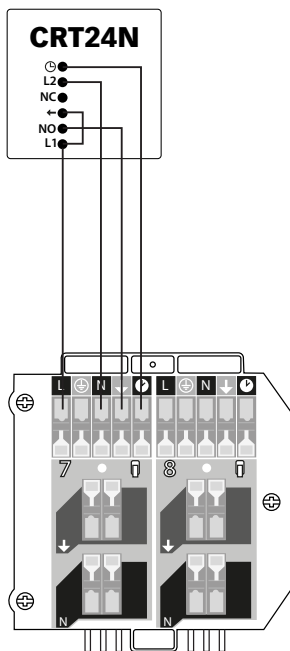
TERMINAL	DESCRIPTION
L	Live to thermostat
⊕	Earth connection to thermostat
N	Neutral to thermostat
↓	Thermostat load demand output
⌚	Night Set Back / CO contact
↓ pins	L1 / Actuator active control connection to thermostat output
N pins	L2 / Neutral connection to actuators

### ACTUATORS CONNECTION

Wires of the thermoelectric actuators should be plugged into the self-locking connectors in the appropriate zones. You can connect 2 actuators directly to one zone.



### THERMOSTATS CONNECTION: CRT24N EXAMPLE



### LED INDICATION

#### Note:

The LED will not work with **CKL624N** wiring centre.

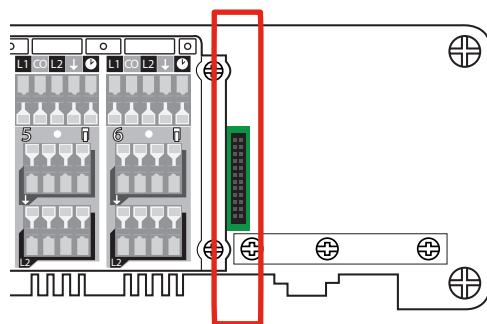
### TECHNICAL SPECIFICATION

Power Supply	from the <b>CKL624N</b> wiring centre
Max load	0.5 A
Dimensions [mm]	80 x 80 x 20

## 8. SERIAL CONNECTOR FOR CKZM MODULE

It provides communication between the **CKL624N** wiring centre and the **CKZM** module. **CKL624N** wiring centre + **CKZM** module increases functionality and additionally adds up to 8 zones to the wiring centre. **CKZM** module is powered from the wiring centre.

**Note:** For safety reasons, the serial connector comes with a plastic cover on top of it. In all the images illustrating **CKL624N** in this quick guide, the serial connector is shown with the plastic cover removed.



## STEP DOWN TRANSFORMER



#### Note:

The **CKL624N** Wiring Centre is supplied with a step down transformer from 230 V to 24 V.

To see how the transformer can be mounted on the DIN rail, please check the **INSTALLATION INSTRUCTIONS** that come with the product.

## INSTALLATION

**Note:** Before installing the **CKL624N** wiring centre, make sure it is disconnected from the main power.

- Remove the top cover of the wiring centre.
- Unscrew the main housing (see picture).
- 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.
- Remove the appropriate pieces of insulation from the wires.

**Wires for actuators**  
 (min. 2 x 0,75 mm<sup>2</sup> 24 V  
 max. 2 x 1,5 mm<sup>2</sup> 24 V)

**Wires for power supply**  
 (min. 3 x 1,0 mm<sup>2</sup> 24 V  
 max. 3 x 1,5 mm<sup>2</sup> 24 V)

**Thermostats wires**  
 (min. 4 x 0,75 mm<sup>2</sup> 24 V  
 max. 4 x 1,5 mm<sup>2</sup> 24 V)
- Thread the wires under the mounting belt in the back part of the wiring centre.

Set includes supplementary accessories (to support installation proces).
- Thread the wires through the slots in the top part of the wiring centre and connect it to the terminals.
- Adjust the wires and screw the main housing of the wiring centre to the rear housing.
- Connect the thermoelectric actuators wires.
- Make sure that all the wires are properly connected, mount top cover and power up the wiring centre - the green "Power" indicator LED will illuminate.

## INSTALLATION OF THE ADDITIONAL MODULE CKZM

**Note:** Before connecting the **CKZM** module, disconnect the main power from the **CKL624N** wiring centre.

- Remove the top cover of the wiring centre.
- Connect the **CKZM** module to the serial connector.
- Make sure that all the wires are properly connected, mount top cover and power up the wiring centre - the green "Power" indicator LED will illuminate.