

Wiring Centre 230V with flexible mapping of circuit and zones

Model: CKL20



## Quick Guide

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# C€ [#[ <u>⊠</u>

## INTRODUCTION

The **CKL20** wiring centre allows easy and quick connection of thermostats and actuators due to screwless, push type terminals.

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

CKPL Pump Logic Module

The CKL20 wiring centre is adapted to work with all type of thermal (e.g. CTS230) and electronic (e.g. STHB230) actuators and maximum 6 thermostats.

## **PRODUCT COMPLIANCE**

This product complies with the essential requirements and other relevant provisions of Directives: RED 2014/53/EU and RoHS 2011/65/EU.

## **SAFETY INFORMATION**

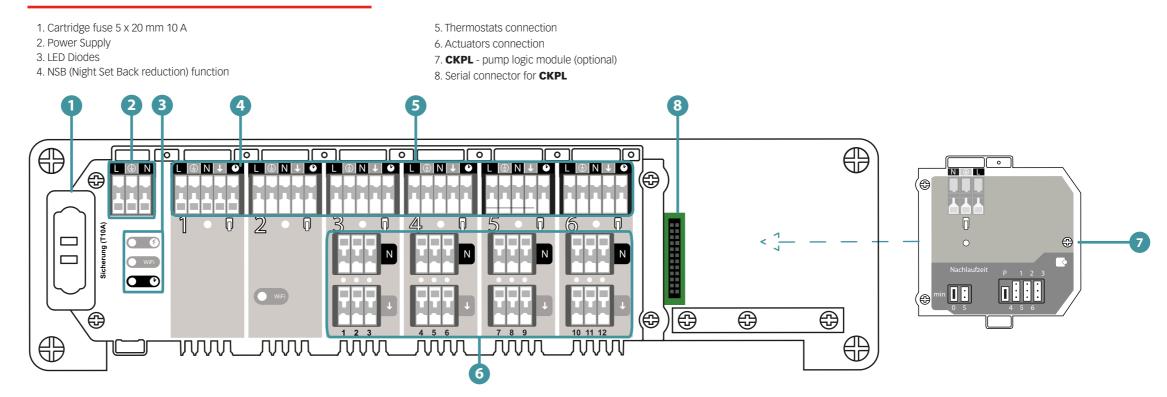
Use in accordance with the regulations. Indoor use only. Keep your device completely dry. Disconnect your device before cleaning it with a dry cloth. This accessory must be fitted by a competent person, and installation must comply with the guidance, standards and regulations applicable to the city,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

Before any of operation releated to power supply (connecting wires, installing the device, etc.), make sure that **CKL20** is not connected to any power source. Incorrect connection of the wires may cause damage to the wiring centre. The **CKL20** cannot be used in conditions of water vapor condensation neither exposed to water.

## **TECHNICAL INFORMATION**

Power Supply	230 V AC 50 Hz
Max load	0,5 A per heating circuit
Outputs	Terminals for actuators (230 V)
Dimensions [mm]	330x92x65

## WIRING CENTRE DESCRIPTION

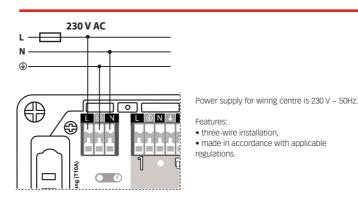


## 1. FUSE

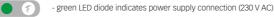
Note: Fuse replacement should be done when the wiring centre is disconnected from power supply 230 V AC.

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 10 A. To remove the fuse, lift the socket with a flat screwdriver and pull out the fuse.

## 2. POWER SUPPLY



## 3. LED DIODES





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- orange LED diode indicates NSB function being activated

green LED diode shows activated local Wifi Network

# 4. NSB (NIGHT SET BACK REDUCTION) FUNCTION

NSB function is activated in non-programmable **Cosmo** thermostats via external signal. NSB 230 V signal (night-time temperature reduction) is sent via an external timer or programmable thermostat connected to the **CKL20** 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.  $4 \times 0.75$  mm2, max.  $4 \times 1.5$  mm2).

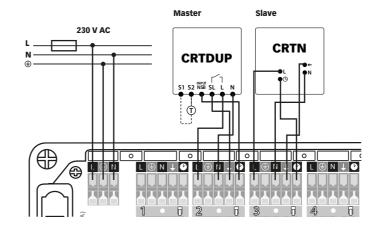
Additionally, this connector can be used to handle the CO-Input signal coming from the heatpump. Wire up the thermostats with CO-Contact (e.g. **CRTDAP**) and there will be automatic switch from Heating to Cooling: CO Signal OV -> Heating Control

CO Signal 230V -> Cooling Control

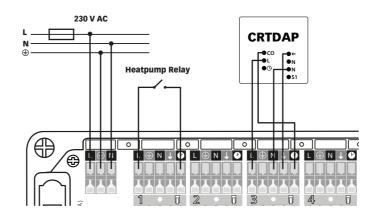
## 5. THERMOSTATS CONNECTION

**Note:** Interchangeable signifying:  $\uparrow = SL$ (P) = NSB

#### CONNECTING CRTDUP

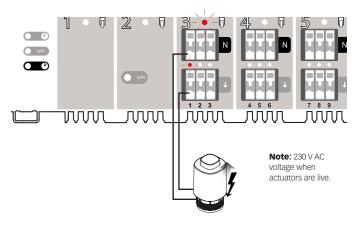


### CONNECTING CRTDAP



## 6. ACTUATORS CONNECTION

The actuator wires should be secured with the self locking connectors in the appropriate zone. Up to 12 actuators can be connected. The mapping to the heating zones is absolutely flexible. The  $\checkmark$  pins are the actuator active control connection to thermostat output, while the N pins are the neutral connection to actuators.



# 7. CKPL PUMP LOGIC MODULE (OPTIONAL)

**CKPL** module extends the functionality of the **CKL20** wiring centre. The module is used to control the pump using N / E / L contacts. It helps to save electrical power. Whenever there is no heat demand, the pump will be unpowered and not wasting any energy.

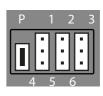
#### JUMPERS 0-5



These are used to set in minutes the delay time (overrun time). Default setting is  ${}_{*}\!0''.$ 

0-5 values specify the time in minutes. E.g. when jumper is set to value "0", the module will turn off as soon as the thermostats stop calling for heat. If jumper will be set to the value "5", the module will turn off 5 min after the thermostats stop calling for heat.

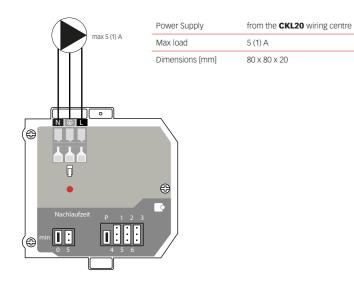
#### JUMPERS P, 1, 2, 3, 4, 5, 6



They are used to select the zone which turns on the module. Default setting is  $_{\mu}P''$ .

 ${\bf P}$  – all zones start the module The CKPL need to stay on P when used with the CKL20 !

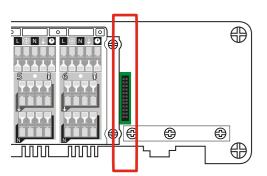
## PUMP CONTROL



## 8. SERIAL CONNECTOR FOR CKPL MODULE

It provides communication between the **CKL20** wiring centre and the **CKPL** module. CKL20 wiring centre + CKPL module increases functionality and additionally makes possible to control pump. **CKPL** 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 CKL20 in this quick guide, the serial connector is shown with the plastic cover removed.



## PROGRAMMING

## Mapping of heating zones and heating circuits

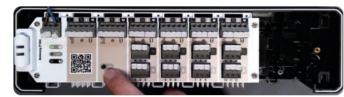
#### STEP 1

Connect the CKL20 to the 230V power supply. The green LED must light up!



## STEP 2

Press the "WiFi" button until the green LED next to WiFi is solid green.



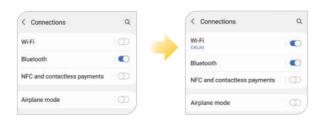
# STEP 3

The CKL20 is now sending a local WiFi signal (no internet connection)



# STEP 4

Activate the WiFi function on your smartphone and connect to the CKL20 - WiFi newtork.



## STEP 5

Scan the QR code on the CKL20 next to the WiFi button or type in the address: http://192.168.8.1



#### STEP 6

Follow the menu. Select your Language and press "Login" after this press "Zone Settings" and mapp the actuators with the wanted zones. From the factory, no actuator is assigned to any Zone which is shown as "None". See Example below.





STEP 7

Press on "Submit" then go "Back".





#### STEP 8

The active actuators are indicated with the red LED - while heating is on.



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#### STEP 9

Now close the local network, by pressing the WiFi button until the WiFi LED is OFF!

## INSTALLATION

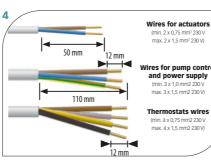
Note: Before installing the CKL20 wiring centre, make sure it is disconnected from the main power.





Remove the top cover of the wiring centre.

Unscrew the main housing (see picture).



Remove the appropriate pices of insulation from the wires.



of the wiring centre.

proces).



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



Connect the thermoelectric actuators wires.

## **INSTALLATION OF THE ADDITIONAL MODULE CKPL**

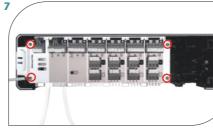
Note: Before connecting CKPL module, disconnect the main power from the CKL20 wiring centre.





Remove the top cover of the wiring centre.

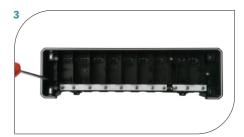
Connect the CKPL module to the serial connector.



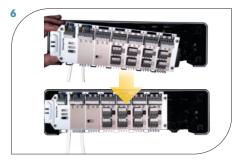


Thread the wires under the mounting belt in the back part

Set includes supplementary accessories (to support installation



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.



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



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.



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