

# NRX5231

## Installation guide



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# NRX5231 overview

## Relay function:

- Used to control 230VAC power for LED lights
- 3 relays, one per Light line
- Each relay will have a 230VAC 10A input (L) and a 230VAC 10A output (M)

## Relay mapping:

- L1/M1: Light line 1
- L2/M2: Light Line 2
- L3/M3: Light Line 3

## ON/AUTO/OFF button:

One switch for each of the output line1, 2 and 3:

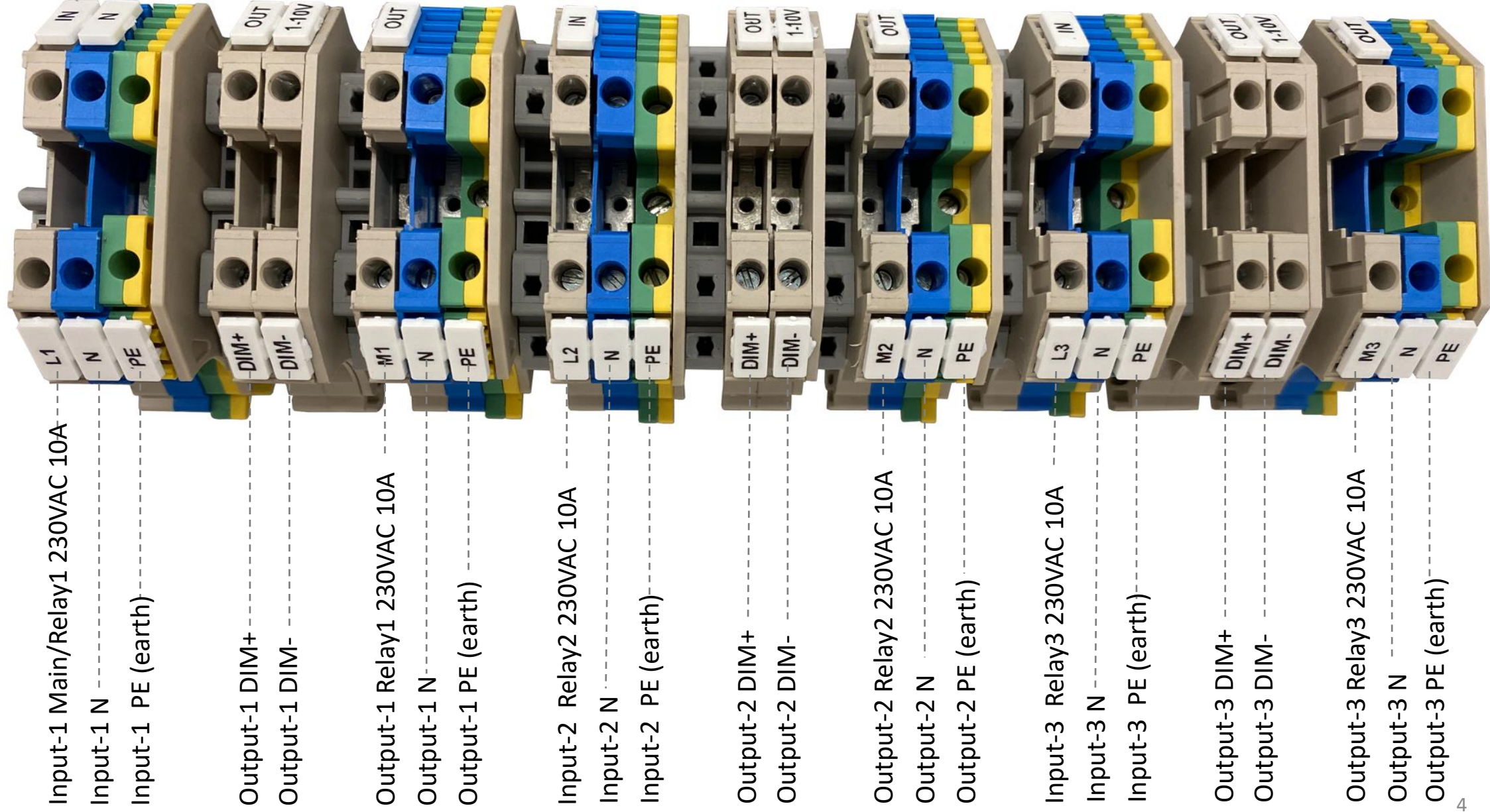
- "ON": Switch light ON (100%)
- "OFF": Switch light OFF (0%)
- "AUTO": "ON/OFF Relay" and brightness controlled by NRX5001



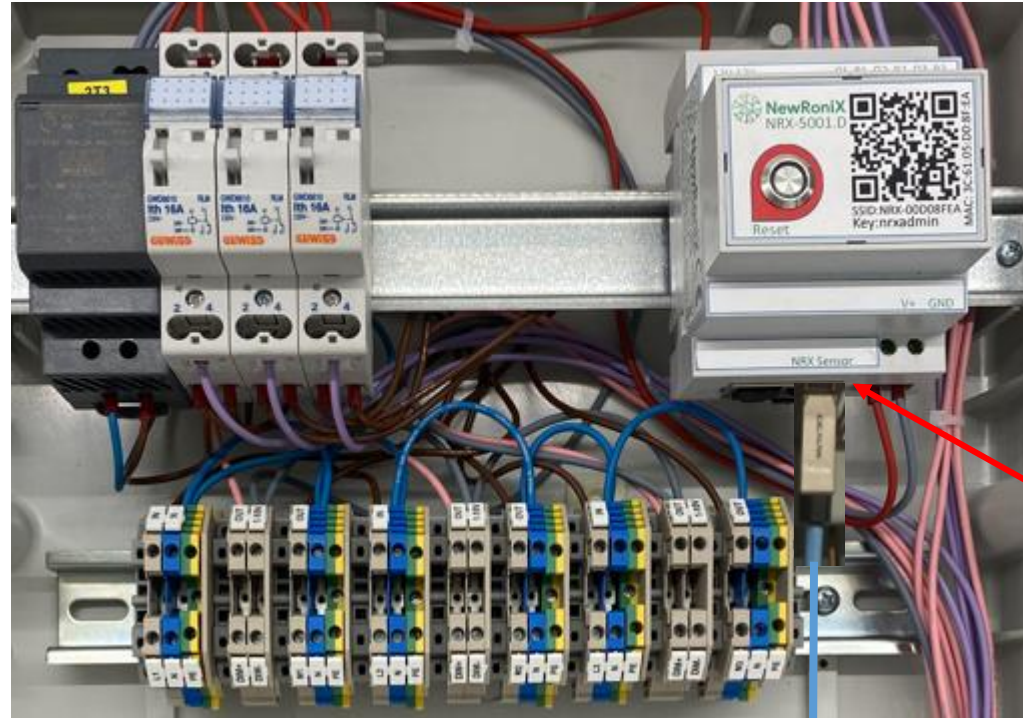
## NRX5001:

- Reset function:
  - Factory reset: Press and hold button until it stops blinking (~15 sec)
  - Restart: Press and hold button for 3 blinks (~6 sec)
- See NRX5001 User Manual for more information

# NRX5231 terminal block connections



# NRX5231 LUX sensor connections



LUX sensor Input

LUX sensor Input

LUX sensor 2

LUX sensor 3

LUX sensor 4

LUX sensor 1

- LUX sensors are connected as daisy chain ethernet connection
- Use Cat5/6 shielded cable, max 250 meters
- Connect to NRX5001 input port "NRX sensor"
- 1 to 4 LUX sensors can be used
  - LUX sensor #1 must be last LUX sensor in chain
  - LUX sensor #2, #3 and #4 can have any order



# NRX5231 0-10V connections – control of light intensity



## 0-10V controlled Lights

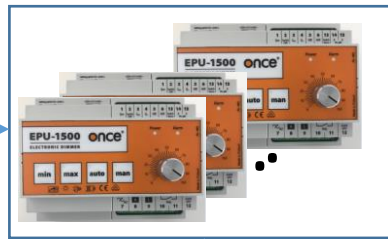
0-10V (dim+/dim-)  
for output Line1, 2 og 3



## Triac controlled Lights

Power box / Triac control

0-10V (dim+/dim-)  
for output Line1, 2 og 3



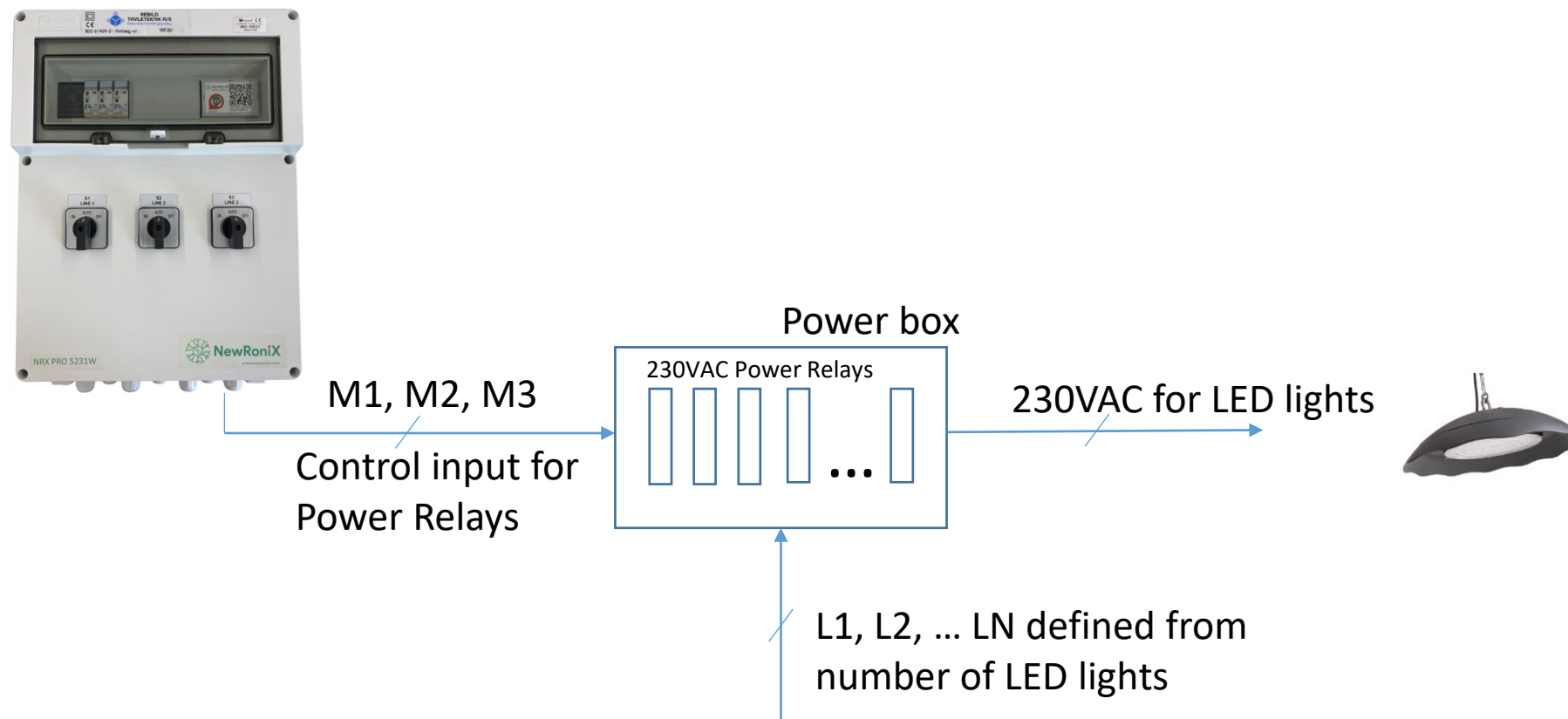
230VAC Triac output



L1, L2, ... LN defined from number  
of LED lights

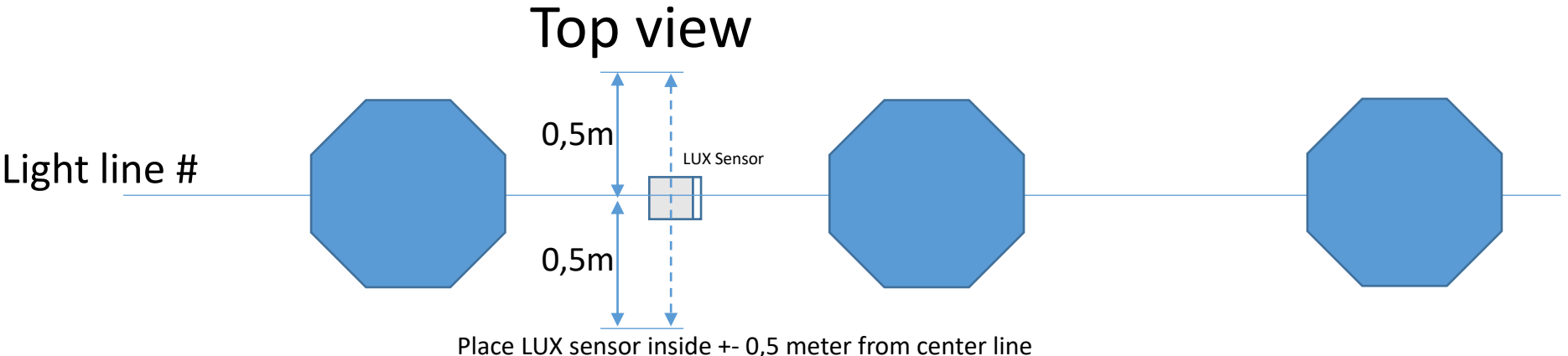
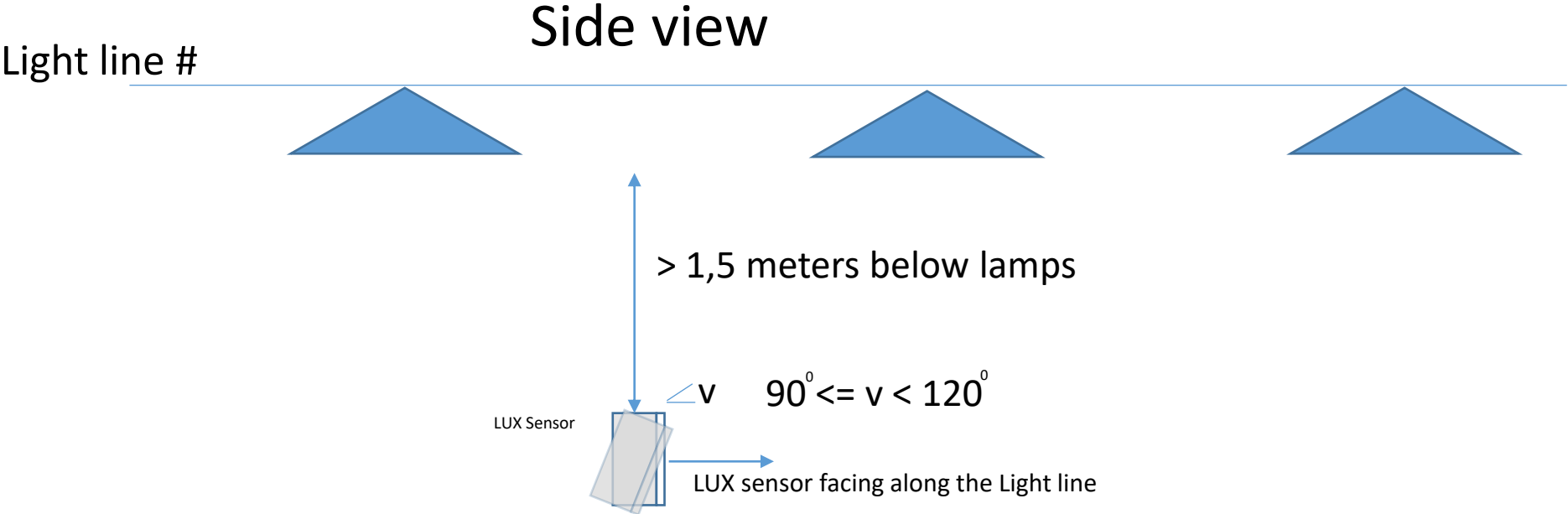
# NRX5231 Relay connections – control of 230VAC power for lights

The relay function in NRX5231 can be used as control input of external power relays powering the light lines with 230VAC. This allows scaling of number of LED lights per light line beyond 10A. In case total power of Light line is < 10A the power box can be skipped



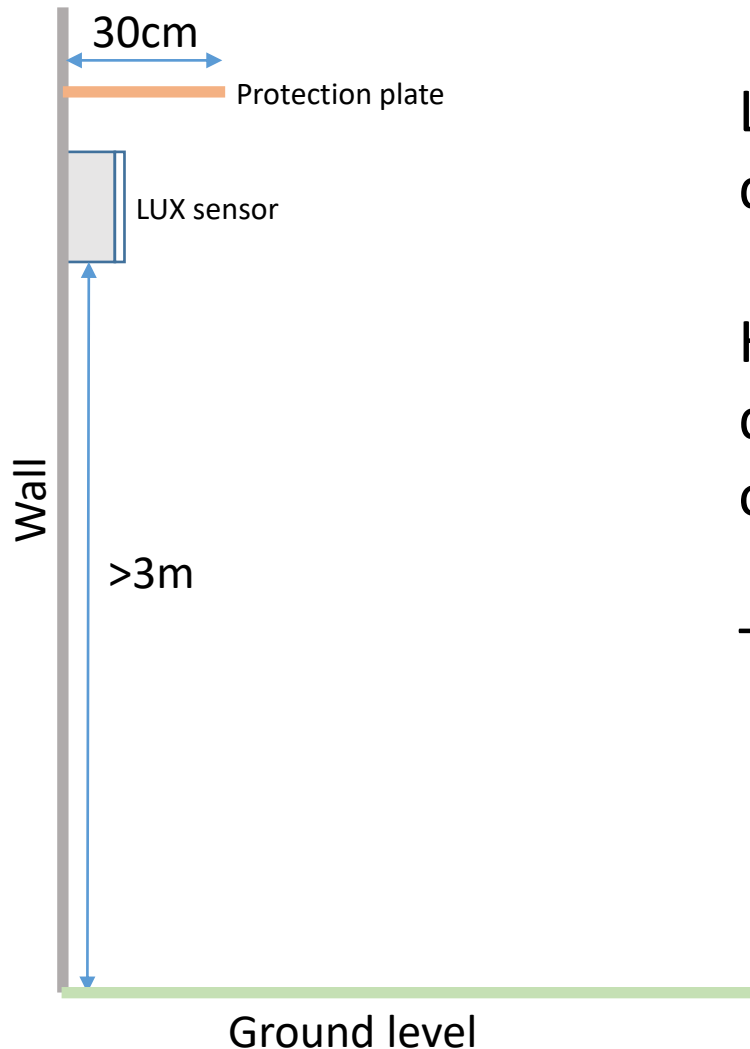
Note: Relay function is not used for Triac control

# LUX sensor mounting for indoor use





# LUX sensor mounting for outdoor use



LUX sensor mounted outdoor can point in any direction

How ever the LUX sensor must be protected from direct sunshine meaning it can be mounted below overhang of roof or protected by a plate e.g. 30x40 cm

The position is minimum 3 meters above ground level

# Quick setup – Before you start

1. Make sure all switches on NRX5231 is in position "AUTO"



2. Make sure all LUX sensors are connected to NRX5231
3. Do the installation early morning or late afternoon/evening.
  - As the installation includes auto calibration of LUX sensors it is important that you do the setup at a point in time where there is a minimum of incoming light from outside as this will impact the calibration procedure
    - If it is not possible to make the installation during the correct conditions, it is possible afterwards to re-calibrate LUX sensors via menu "settings/lux sensor/calibrate lux sensor" – see NRX5001 User Manual section "LUX sensor Menu"

# Quick setup

1. On surface of NRX5001 you find QR code



2. Connect:

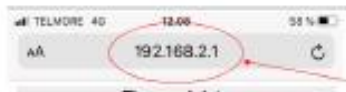
- Open the camera on your smart phone and scan the QR code
- Select: "Use NRX-xxxxxxx-network" to connect to NRX5001 via WiFi

OR

- Open your Smart Phone wifi setup
- Search for WiFi SSID listed on surface on NRX5001: "NRX-xxxxxxx"
- Connect using default password listed on surface of NRX5001: "nrxadmin"

Note: Instead of using a smart phone it is also possible to connect and control NRX5001 from a PC using NRX5001: SSID and key (password)

3. Open a browser on your Smart phone and write "192.168.2.1" and then search



4. Now you will enter the Setup menu for NRX5001:
  - a. Enter Date and Time and press Next



Note: If you see a different screen than what is shown above then perform Factory Reset and go back to point 2 again. To do Factory Reset:

- Press the "Reset" button
- The button will start flashing with red light with 1 second period
- Keep the "Reset" button pressed until it stops flashing (~15 seconds)
- NRX5001 will now restart with Factory settings

Now go back to point 2 and start again

5. Select configuration file from drop down menu:

- a. default : Default setup of NRX5001 with empty schedule – user has to set up manually
- b. custom : Customer specific setup which will set up everything according to customer specific requirements including schedule and configuration of lux sensors. This configuration is valid only for customers buying this option



Select Custom file

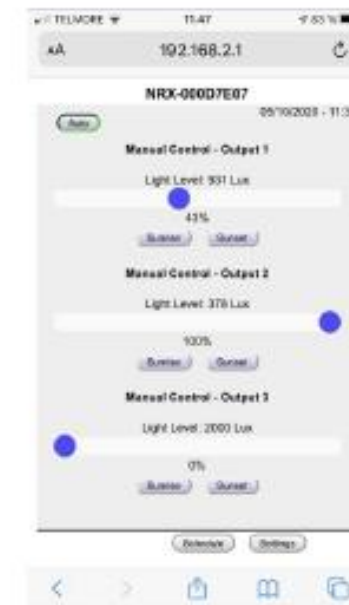
# Quick setup continued

6. Press Next and the configuration of the system will start. In case configuration includes LUX sensors an auto calibration will start and the following screen will occur:



7. Await the calibration to complete – it can take up to 45 seconds

8. Setup is now completed and the system is running. NRX5001 will return to Main Screen. You can now close the connection by closing browser

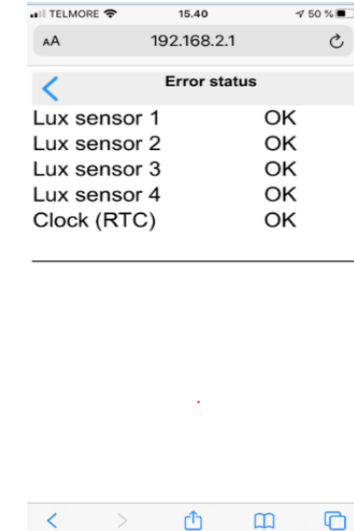
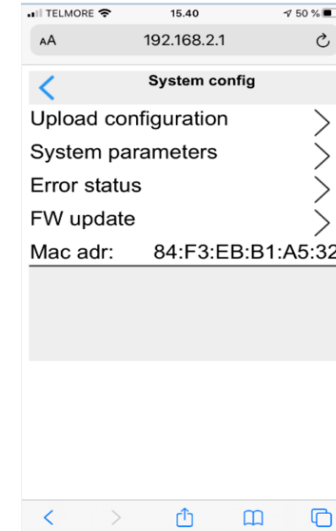


# Troubleshooting

In case reset button on NRX5231 flashes red with a 2. sec. period it is indicating error in system



- To read out the error cause connect to NRX5321:
  - Scan QR code
  - Open browser and write 192.168.2.1 and search
- Go to menu settings/system/error status
- In case error on LUX sensor then check cable connection
- In case error on RTC then set time via time/date menu



- After the error is corrected then reset system and redo the installation:
  - Press and hold the **“Reset”** button until it stops flashing (~15 seconds)
  - NRX5001 will now restart with Factory settings
  - Go to section Quick setup in this document and redo installation

For more information see “NRX5001 User Manual” section: “System errors and recovery”