PX914

Modular Advanced Dimmer

Installation instructions

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1   Safety conditions

PX914 dimmer is a device powered directly from the 230V AC mains. Failure to observe safety instructions may result in electric shock and pose a threat to life. Therefore, you should strictly adhere to the rules outlined below:

1. Installation of the device, and in particular, connection of power, should be made by a suitably qualified person, as described in the manual.
2. The device can be connected only to 5-wire installation (with a separate protective conductor).
3. Protect all cables against mechanical and thermal damage.
4. In case of failure of any of the cables, it must be replaced with a cable of the same technical parameters.
5. Each receiver should be powered by a separate cable.
6. After installation, test the effectiveness of resetting all the equipment controlled.
7. All repairs that require the housing to be removed can only be carried out with power disconnected.
8. The dimmer must be strictly protected against contact with water or other liquids.
9. Avoid sudden shocks.
10. Do not connect dimmer with damaged housing to the power supply.
11. Do not operate the device in rooms with humidity above 90%.
12. The device must not be used in rooms with a temperature below +2°C or above +40°C.

13. Clean only with a damp cloth – the dimmer must be at this time completely disconnected from the power supply.

<div align="center">NOTE!!!</div>

1. Improper connection of the protective conductor (yellow-green) may result in electric shock.
2. To maintain the warranty, the first start-up must be carried out by a person authorized by PXM.

2   Installation

The cabinet should be leveled after placing it in the selected place and leaving a space at the top of not less than 60cm to ensure air flow.

The entry of power, communication and control cables is possible through the lower and upper parts of the cabinet.

Cables can be inserted after breaking the square plugs.

After breaking off the caps, protect the edges with the edge protector included in the set.

2.1 Power connection

The dimmer must be connected to a three-phase power supply with available neutral and ground (3-NPE AC 400/230V / 50Hz).

The neutral conductor must have the same or larger cross-section than the phase conductors.

To connect the power supply, dismantle the metal cover (located in the lower part of the cabinet) by unscrewing the 4 marked screws.

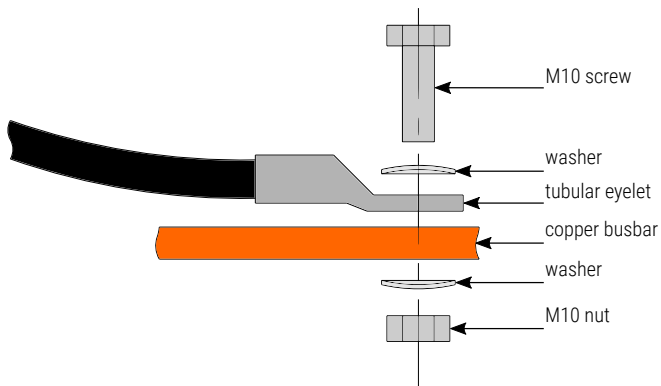Then remove the cover of the copper bars.

After connection, reinstall the cover and grille.

NOTE! All electrical connections may only be made by persons with appropriate qualifications!

The set includes:

- 5 x M10 screw,
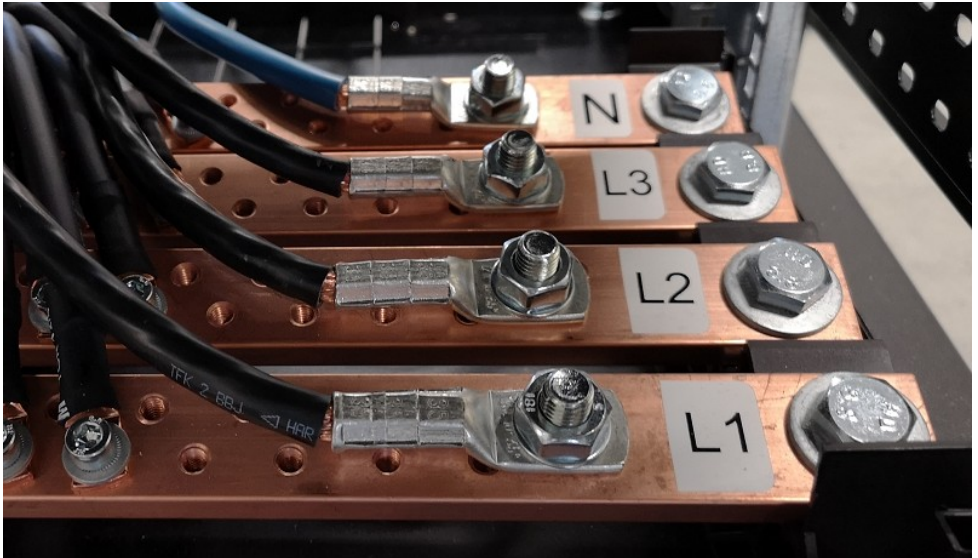- 5 x M10 nut,
- 10 x M10 washer.

Assembly method:

2.1.1 L1, L2, L3 and N

Copper connection rails with a width of 30mm have phase descriptions on each strip: **L1**, **L2** and **L3**. Neutral is marked **N**.
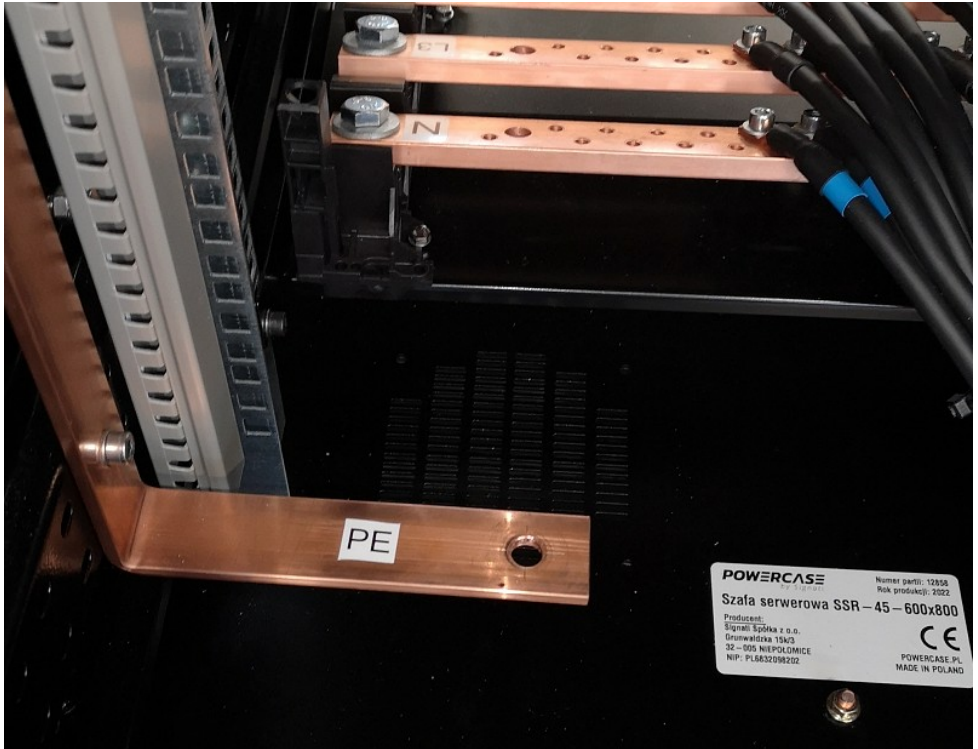

The busbars have connection holes for an M10 screw, which must be tightened with a torque wrench with a force of 50Nm. The cables must be equipped with cable lugs for an M10 screw.

2.1.2 PE

The grounding, marked as **PE**, is connected to the 30mm wide busbar located in the lower part of the cabinet using an M10 screw and nut.
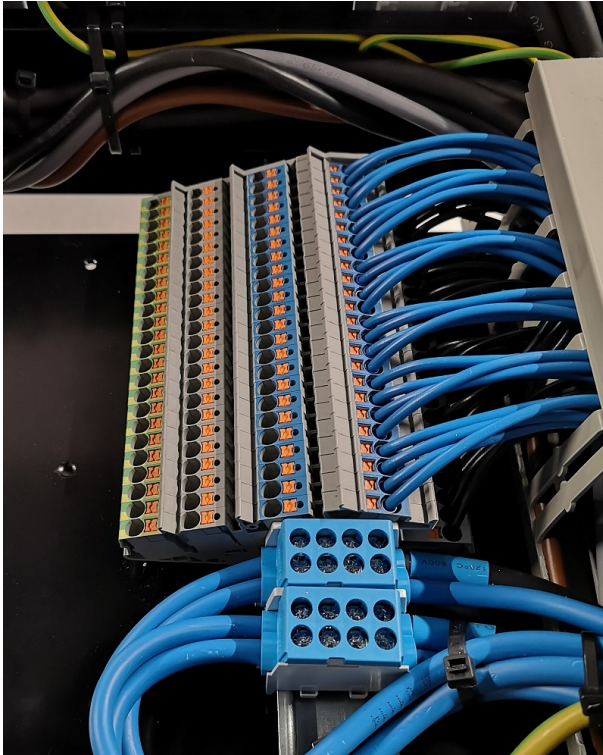

The screw must be tightened with a force of 50Nm. The cable must be equipped with a cable lug for an M10 screw. *An M10 screw is included.*

2.2   Connecting receivers

Connecting devices to the dimmer is possible using terminals with a cross-section of 4mm^2. Each receiver should be powered by a separate cable with a cross-section of not less than 3 x 2.5mm^2. The cables must be equipped with cable lugs.
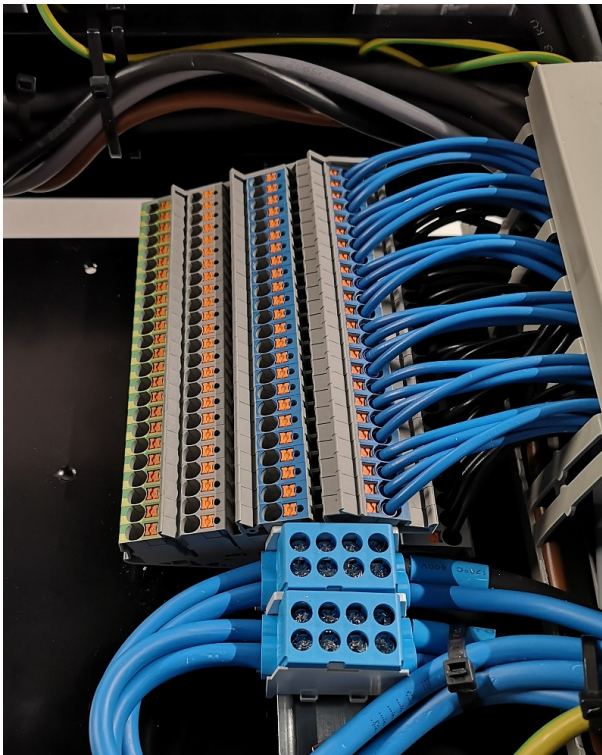

NOTE! All electrical connections may only be made by persons with appropriate qualifications and with the power turned off!

1. Open the front door.

2. Unscrew the screws (8 pcs) marked in the drawing and dismantle the cover by pulling it towards you.
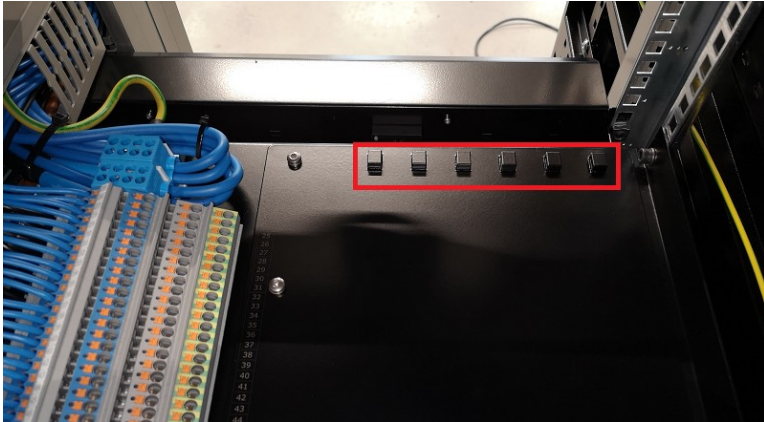
3. Connect the receivers to the output connectors.

NOTE! The phase, neutral and ground wires of one receiver must be connected to the same terminal group.

4. To protect the cables from being unplugged from the connectors, attach them with clamps in the marked places.

5. Install the cover and secure it with screws.
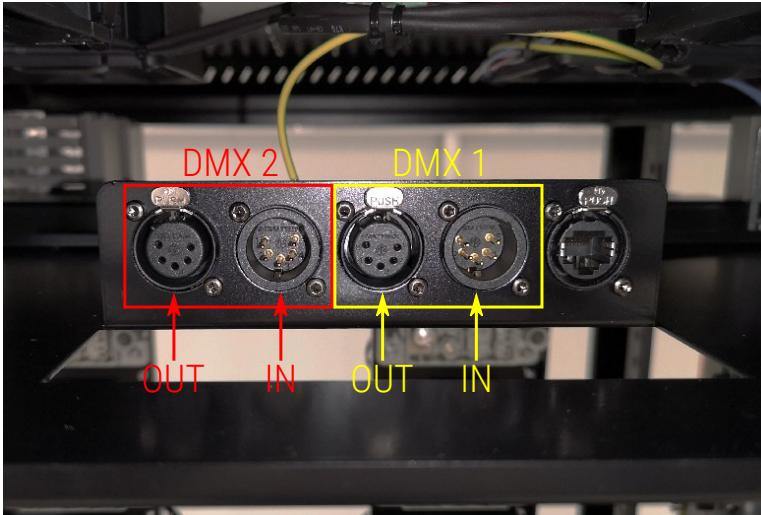6. Install modules – modules are installed by inserting them into the guides.

NOTE! Make sure the modules are fully inserted.

7. Turn off all circuit breakers and residual current circuit breakers and set all *Bypass* switches to the *OFF* position.

2.2.1 Connection diagram

<u>Output sockets – 4mm^2 terminals.</u>

Receiver, e.g.: reflector

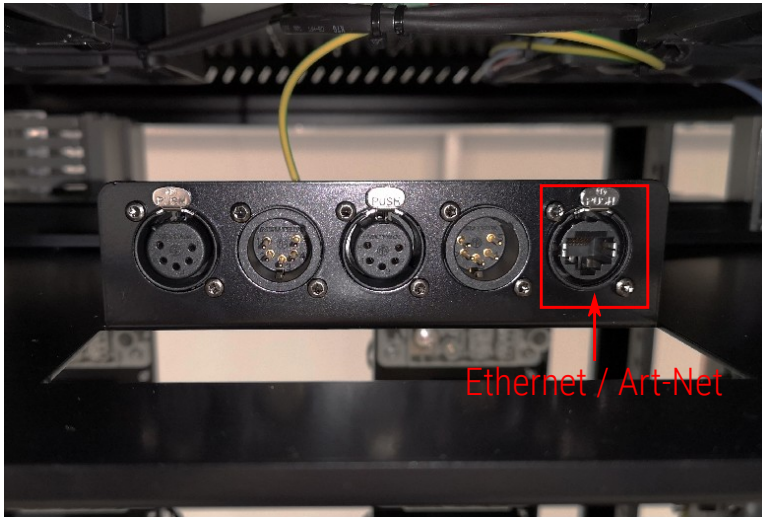N   L   PE

2.3 DMX signal connection

1. The connection for control cables using the DMX protocol is located in the upper part of the cabinet.

2. It is best to use an RS-485 cable for connection (two wires in the screen).

3. Devices should always be connected in series.

4. To branch the DMX line, use a DMX Splitter (e.g. PX716).

5. In the case of a larger number of devices (over 32) or long distances (more than 300 meters), use a DMX Repeater (e.g. PX097). It is recommended not to reach the maximum length and number of devices on the DMX line.

6. In the last device of the DMX line, it is necessary to install a terminator in the *DMX OUT* connector, i.e. a 120 Ohm resistor.

2.4 Ethernet / Art-Net connection

1. The network cable connection is located in the upper part of the cabinet.

2. To connect the Ethernet network, use a shielded cable with an RJ-45 plug.

3 First start-up

The first start-up of a connected device to the network <u>may **only** be performed by a person authorized by PXM.</u>