

PX 201

PxRing
18 B

Manual



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Manufacturer reserves the right to make modifications in order to improve device operation.

Rev 1.0

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1. General description

The PxRing 18 B lamp has 18 LEDs built-in in the 6x3 arrangement of the diodes.

The PX 201 lamp is designed for fountain installations where high lighting brightness is required. Through hole in middle of the PX201 allows mounting around nozzles. It allows to reach a full spectrum of 16 mil. colors (theoretically) when connected to an external controller.

Use of high-quality LEDs provides bright light with low power consumption. This product can work with 350 mA or 700 mA (in underwater solutions) current power supply. During purchasing of lamps a customer can choose the appropriate beam angle of lenses and color of LEDs to be installed. This allows to adapt the device to the specific conditions.

The product is made in casing with ingress protection class IP68. The casing is made of bronze, which protects against harmful external conditions. The product is sold without fastening sleeve, which has to be ordered additionally.

2. Safety conditions

Caution! Before installing, connecting and using the lamp you have to absolutely read this document.

The following symbols are used to underline important information on security conditions on the product and in this manual.



Danger!
Risk of loss of life and health.



Warning!
Fire hazard.



Warning!
LED light emission.
The risk of eye damage.



Warning!
The risk of burns.



Warning!
Read the instruction manual.



ESD Protection!
Read the instruction manual.

Caution!



Do not look at the LEDs at a shorter distance than 2.2m from the front surface of the tube without proper eye protection. LEDs can cause damage or eye irritation. Do not look at the light source directly through any optical instruments, which focus the light rays.



Keep ESD protection because the module and installed LEDs may be damaged by static electricity generated in equipment, people, tools and other insulators or semiconductors.



While working at an ambient temperature of 25°C housing unit can heat up to 65°C. Because of the danger of burns, avoid direct contact with the casing.



In case of improper usage of the product it may cause a risk of serious injury or death because of the threat of fire.



The PX201 LED lamp is powered with 3x350 or 3x700 mA current and safe voltage up to 48 V, but during the installation and use the following rules must be strictly observed:

1. Installation, particularly power connection, should be performed by a person holding the appropriate qualifications, according to this manual.
2. The lamp can be connected only to a current source of a magnitude 3x350 or 3x700 mA (3x700mA only in underwater installations) according to described in paragraph 5 conditions.
3. All wires must be protected against mechanical and thermal damage.
4. In case of damaging any conductor, it should be replaced with a conductor of the same technical parameters.
5. All repairs can be performed only with power supply disconnected.
6. Wait 20 minutes after turning the lamp off before attempting to do any maintenance.
7. Prior to any maintenance of the module inside of the lamp, discharge any static electricity that may damage the LEDs, by touching the grounded elements. Also remember not to use nearby the LED module any soldering transformer.
8. All flammable materials (e.g. textiles, wood, paper, etc.) should be kept in a safe distance of at least 0.3 m from the outer surface of the housing.
9. Do not connect the power supply to a lamp with visible damage.
10. It is essential to protect the LED module located in the lamp PX201 from contact with water and other fluids.
11. All sudden shocks, particularly dropping, should be avoided.
12. Do not use in open air with temperatures higher than + 40°C.
13. The device can be installed and used in accordance with the conditions contained in this manual, as well as applicable standards and regulations not listed in this document.

3. Information about the lamp version

The PX 201 lamp is available in several versions differing in angle of used lenses.

Below is a description of the PX201 models designations and their explanation.

PX 201 - XX - YYY

XX-lens angle.

Available values:

10 - 10°

25 - 25°

45 - 45°

YYY- LEDs colors.

Available colours:

W - warm white

N - neutral white

C - cold white

R - red

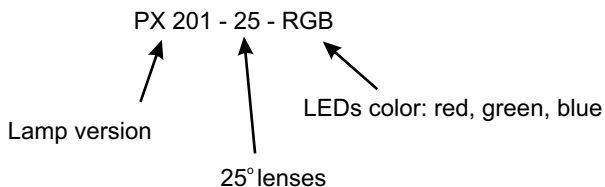
G - green

B - blue

A - amber

When ordering, select the lamp LEDs color and beam angle of lenses to be placed in the device

Przykład oznaczenia lampy:

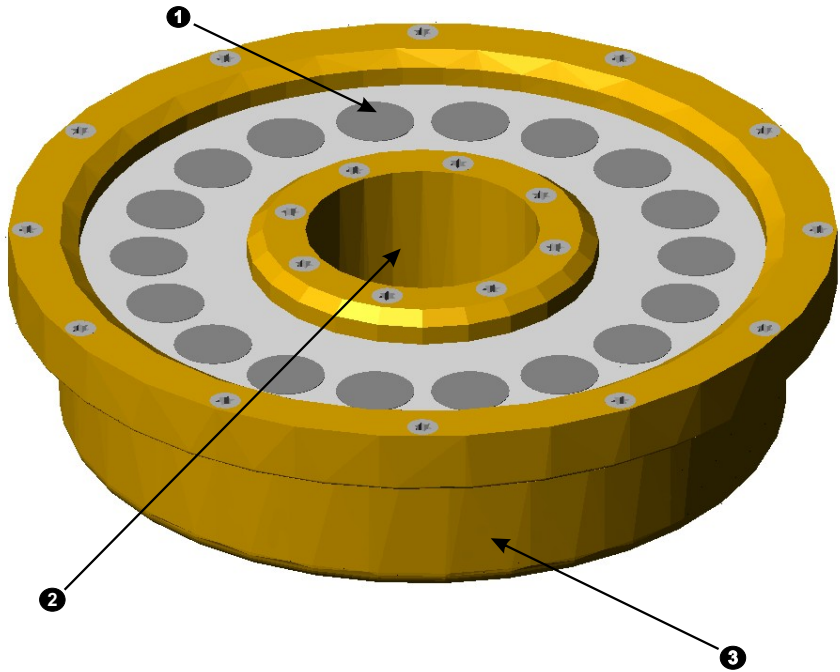


Casing version:

Waterproof IP68.

Casing is in accordance with IP68 standard, allows to use the device underwater in applications such as fountains, pools, and in places exposed to adverse weather conditions.

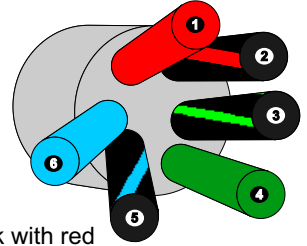
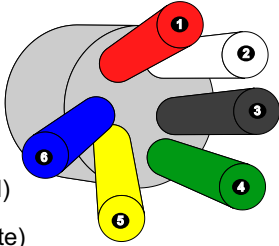
4. Description



- ❶ 18 LEDs
- ❷ Through hole for the fountain nozzle
- ❸ Bronze casing

5. Connections scheme

The RGB version of lamp is connected via 6-strand cable, shown in the figure below.



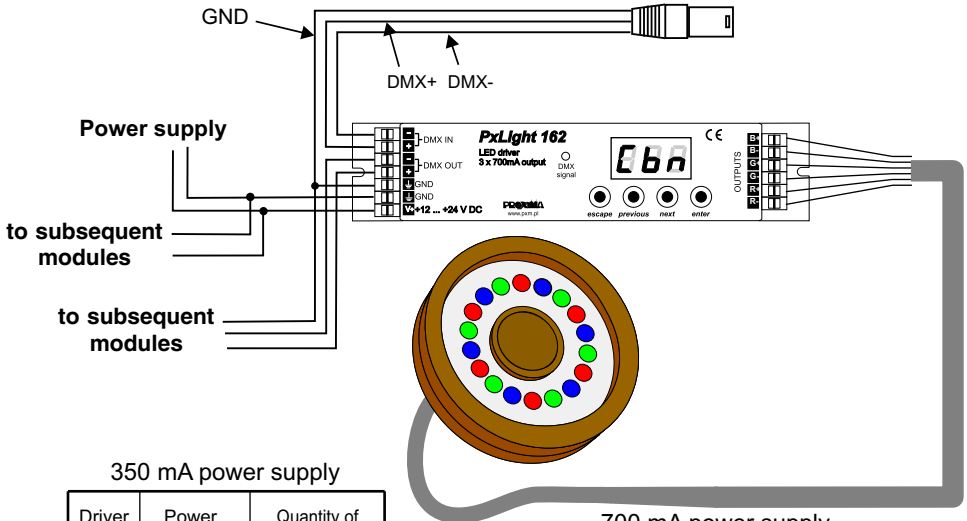
- ❶ RED + (red)
- ❷ RED - (white)
- ❸ GREEN - (gray)
- ❹ GREEN + (green)
- ❺ BLUE - (yellow)
- ❻ BLUE + (blue)

- ❶ RED + (red)
- ❷ RED - (black with red stripe)
- ❸ GREEN - (black with green stripe)
- ❹ GREEN + (green)
- ❺ BLUE - (black with blue stripe)
- ❻ BLUE + (blue)

a) RGB lamps connection

Example of connection the PX 201 to the driver PxLight 162.

Wires should be connected with an appropriate sequence of colors.



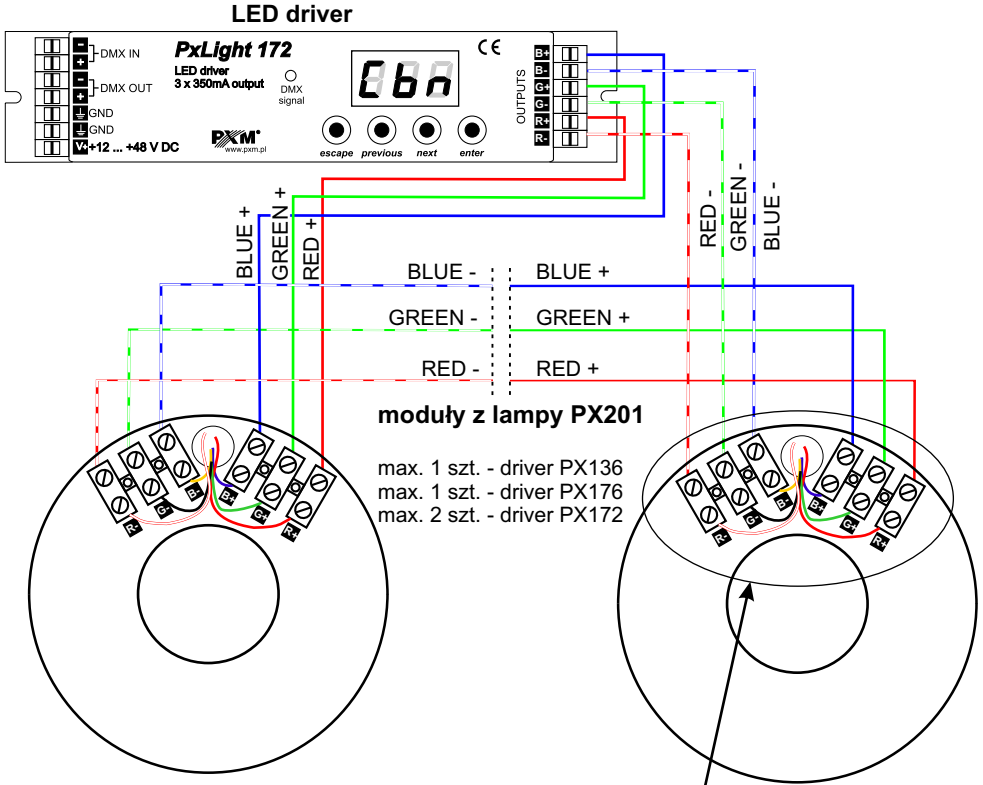
350 mA power supply

Driver LED	Power supply	Quantity of powered lamps
PX176	PY415-24V	1
PX172	PY415-24V	1
	PY421-48V	2
PX215	PY415-24V	1
	PY421-48V	2

700 mA power supply

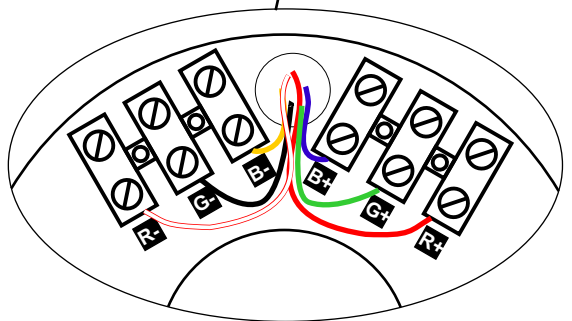
Driver LED	Power supply	Quantity of powered lamps
PX162	PY421-24V	1
PX184	PY421-24V	1
	PY404-48V	2

Example of connection: 2 lamps into the PX172 driver



Each wire color connected to terminal block on LED module corresponds to the following indications:

- R+** RED + (red wire)
- R-** RED - (white wire)
- G+** GREEN + (green wire)
- G-** GREEN - (black wire)
- B+** BLUE + (blue wire)
- B-** BLUE - (yellow wire)



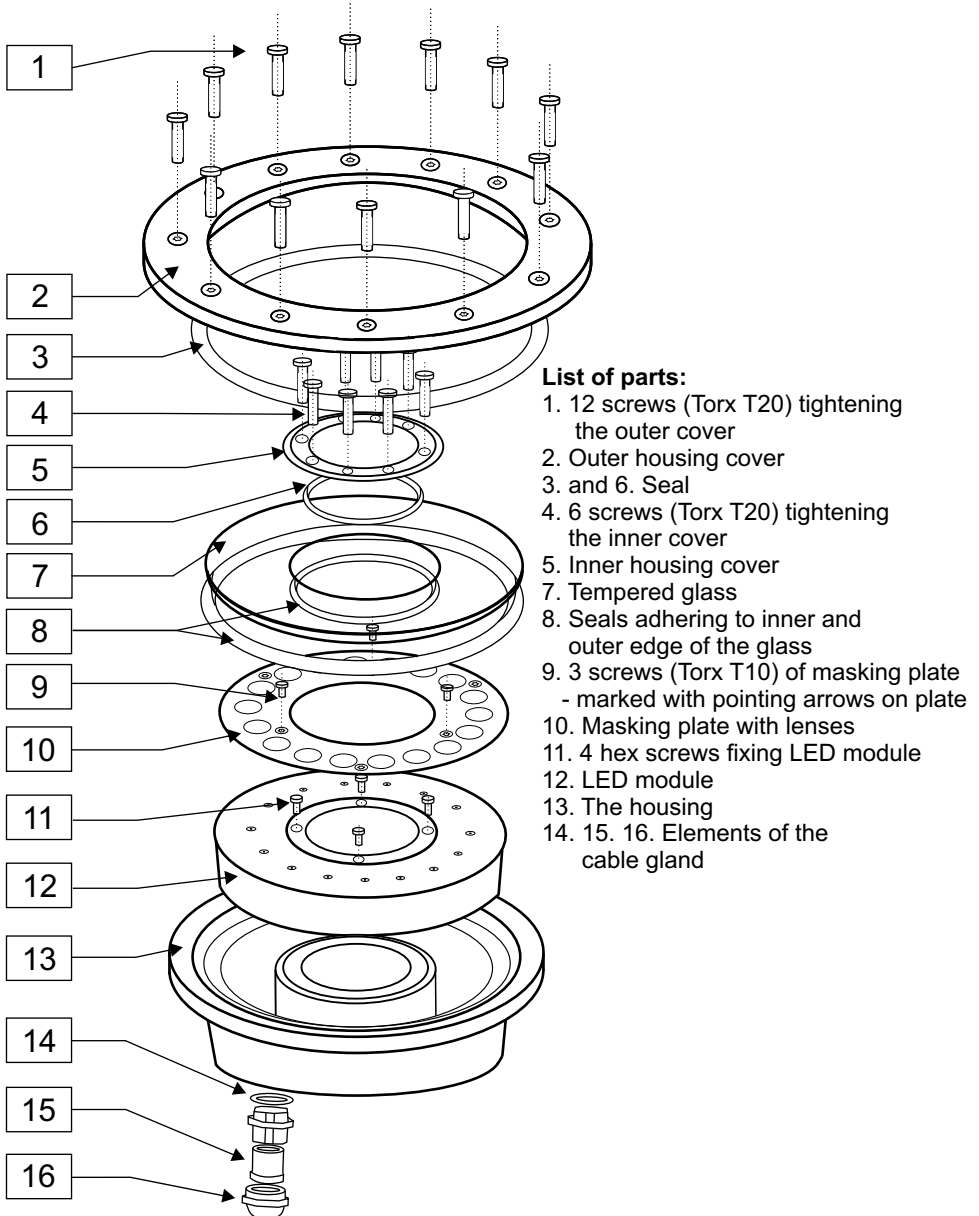
The PX201 lamps with different LEDs colors are connected in the same way according with description next to terminal block.

6. Assembly drawing

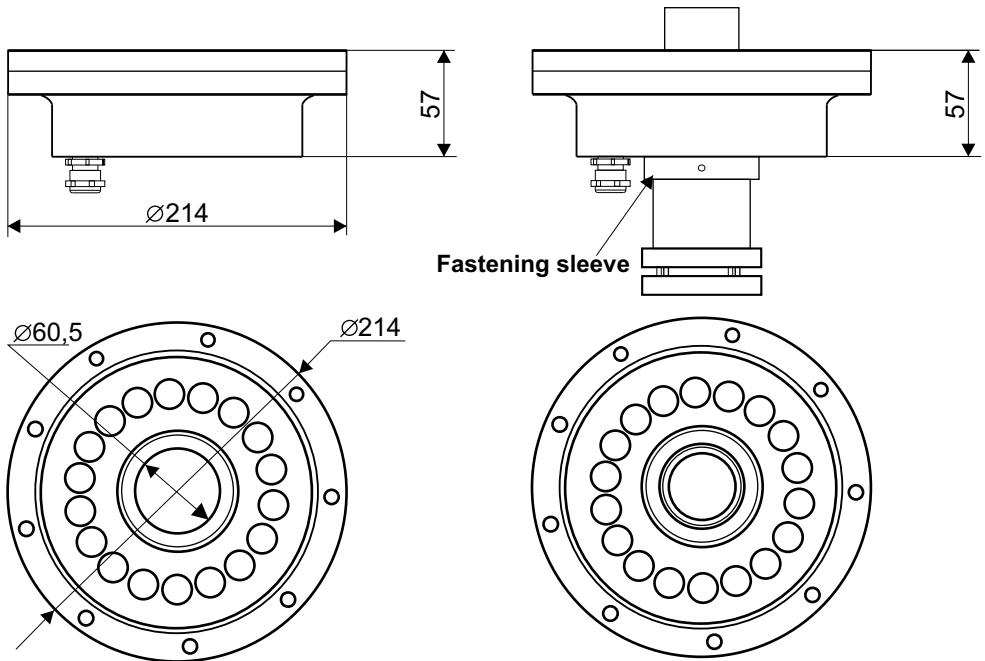
After removing the cover screws and removing the cover and glass with seals, unscrew the 3 TORX screws, marked on the masking plate with arrows.

Subsequently unscrewing the LED module, when you take it out and be careful not to damage the LEDs. This is the most sensitive part to any mechanical damage.

Then followed connecting the cable to the lamp (as shown in paragraph 5), assemble it back and tighten



7. Dimensions



8. Technical specification

Number of LEDs: 18

Casing Material: Bronze

Casing IP class: IP 68

Max. power consumption: ~ 19,8 W (350 mA, full brightness, white color)
~ 48,6 W (700 mA, full brightness, white color)

Weight: 6,1 kg

Dimensions: Diameter: 214 mm
Inner diameter: 60,5 mm
Overall height: 57 mm



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DECLARATION OF CONFORMITY according to guide lines of 2006/95/EC

Name of producer: PXM

Address of producer: ul. Przemysłowa 12
30-701 Kraków, Poland

declares that the product:

Name of product: **PxRing 18 B**

Type: **PX 201**

answers the following product specifications:

PN-EN 60598-1
PN-EN 62471

Additional informations:

PX201 can only be powered from the drivers of the output voltage less than 50V.



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Kraków, 01.06.2011

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