PX837

PxSpot

4 H 24V DMX

User manual

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

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1 Description

The PX837 lamp is a device powered by 24V DC. The lamp uses efficient LEDs that can be controlled using the DMX protocol. They provide many color variants and achieve different brightness. The device is produced in an RGBW version or with white diodes of a selected color temperature (or Dynamic White). The lamp can be equipped with lenses with light beam angles: 10°, 25° or 40°. PX837 is placed in an aluminum housing ensuring tightness at the IP65 level.

A dedicated device for the lamp is the LED Lamp Splitter (PX838).

2 Safety conditions

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.

Caution!

Do not look at the LEDs, LEDs can cause damage or eye irritation. Do not look at the light source with any optical devices that focus the light rays.



Light is harmful to unprotected eyes, can cause irritation, eye damage or even loss of eyesight.



While working outdoors in normal conditions, the housing unit can heat up to +65°C. Make sure that accidental contact with the device during use is impossible.



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

During its installation and use PX837 the following rules must be strictly observed:

1. Installation of the module should be performed by a person holding the appropriate qualifications, according to the instruction manual
2. Lamp may only be connected to stabilized voltage with current-carrying capacity compatible with technical data.
3. All the conductors should be protected against mechanical and thermal damage.
4. In the event of damaging any conductor, it should be replaced with a conductor of the same technical data.
5. All repairs and connections of outputs can only be made with cut off power supply.
6. Do not connect to the power supply to device with visible damage.
7. All sudden shocks, particularly dropping, should be avoided.
8. Do not plug the device into the installation if you suspect that the casing is leaking.

3 Information on version

Below is a description of the PX837 model designations with their explanation:

PX837 – WW – YYY – Z

WW – beam angle:	YYY – CRI / LED color / color temperature:
10 – 10°	RGBW – RGBW
25 – 25°	927 – CRI 90, 2700K
40 – 40°	930 – CRI 90, 3000K
	940 – CRI 90, 4000K
Z – housing color:	950 – CRI 90, 5000K
1 – gray	965 – CRI 90, 6500K
2 – black	DW – Dynamic White
3 – white	

4 Control – DMX

The spot can be controlled via a DMX signal (depending on the diodes installed):

- *MONO*:
  - 1 channel – brightness,
- *Dynamic White*:
  - 1 channel – color temperature,
  - 2 channel – brightness,
- *RGBW*:
  - 1 channel – red (brightness),
  - 2 channel – green (brightness),
  - 3 channel – blue (brightness),
  - 4 channel – white (brightness).

5 RDM parameter

5.1 DMX address

The device occupies 4 DMX addresses. Using the RDM protocol, you can set a starting DMX address from 1 to 508. The remaining channels will be assigned automatically, one after the other. For example, if you set a starting address of 100, the device will use DMX channels 100 to 103.

5.2 DMX signal loss

In the event of a DMX signal failure, the driver can continue to operate autonomously, according to previously defined settings:

- *Nos* – how the device behaves after losing the DMX signal:
  - *OFF* – turning off all outputs,
  - *ON* – turning on all outputs at 100%,
  - *SC* – launching a scene set by the user,
  - *HLD* – maintaining the last DMX value,
- *Nos time* – time (0 – 10 s) in which, in the event of DMX signal loss, the device switches to the mode specified by the *Nos* parameter,
- *Nos scene* – scene configuration (RGBW / MONO / DW channel values) that will be activated if *SC* is selected as ***Nos*** mode.

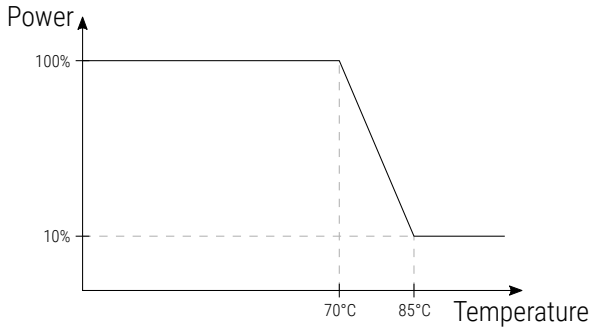
5.3 Smooth

The device is equipped with a smoothing function that allows for smooth brightness transitions without visible jumps. This eliminates the flickering effect often found in lighting installations. By default, smoothing is enabled and set to level 2. Available options:

- Off – smooth disabled,
- 1 – 4 – smoothing levels:
  - 1 – fastest response (less smooth),
  - 4 – the smoothest brightness changes.

5.4 Temperature limitation

The driver comes with a factory-installed temperature sensor. When the temperature exceeds +70°C, the driver gradually reduces output power. When the temperature exceeds +85°C, the device enters protection mode and operates at a maximum of 10% power.



NOTE! When the upper temperature limit is exceeded, the driver is not completely switched off, but the power is reduced to 10%.

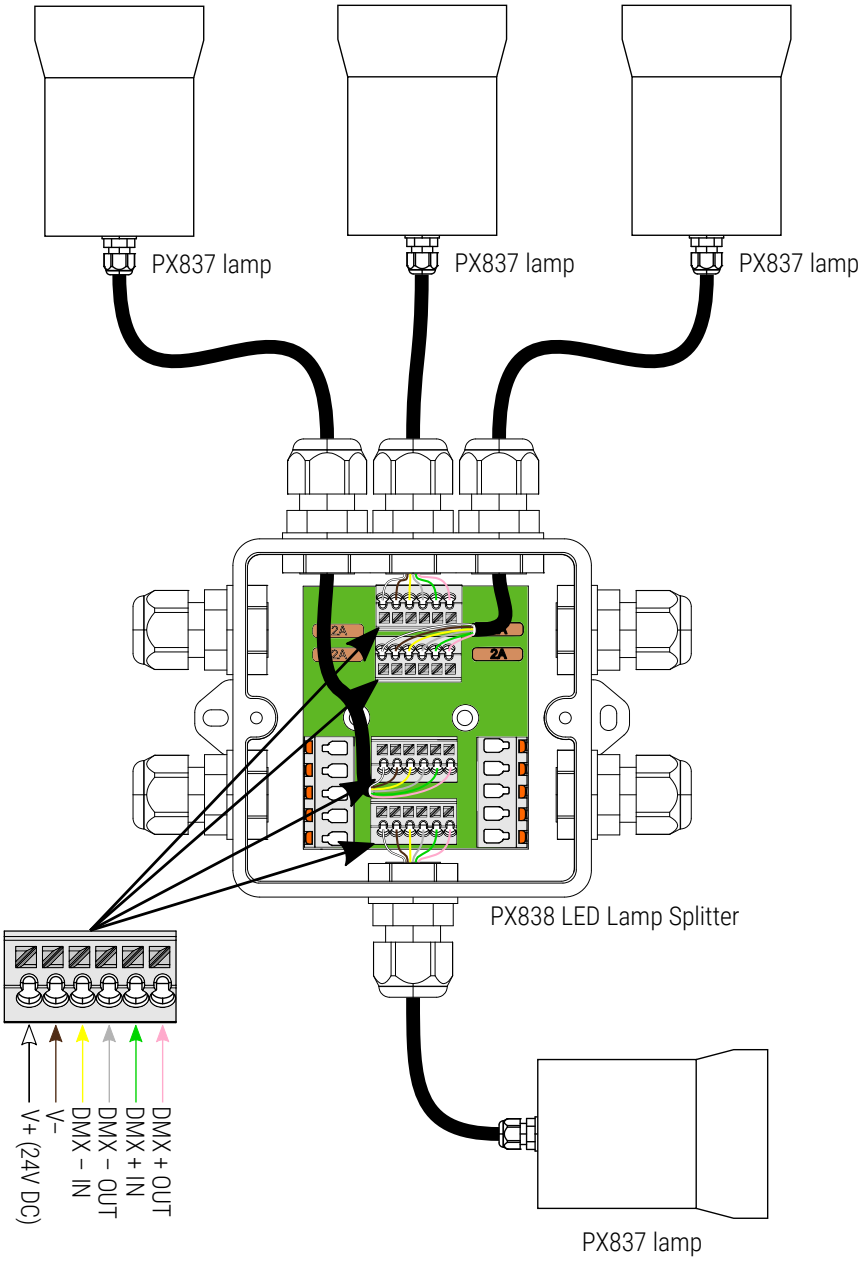
5.5 Factory settings

The device has the ability to restore default settings via RDM.

PX837 default settings:

- *DMX Addresses*: 1
- *No signal:* OFF
- *Nos time*: 10
- *Nos scene [R, G, B, W]*: 128 128 128 128
- *Smooth:* 2

6 Connection scheme



Wire colors:

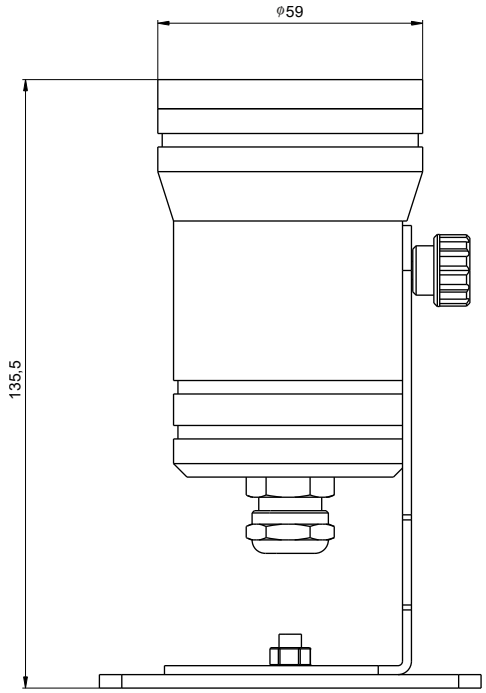
Version 1

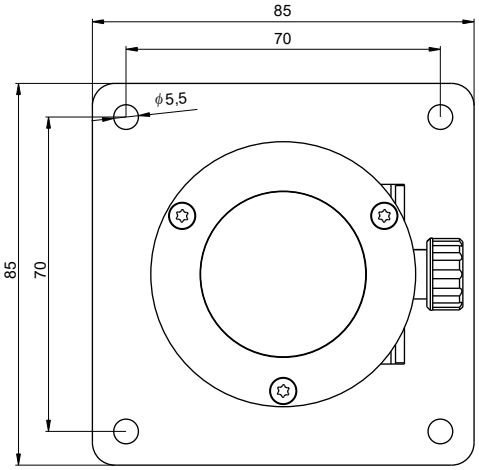
- white – V+ (24V DC),
- brown – V-,
- yellow – DMX- IN,
- gray – DMX- OUT,
- green – DMX+ IN,
- pink – DMX+ OUT.

Version 2

- red – V+ (24V DC),
- red-black – V-,
- green- black – DMX- IN,
- blue- black – DMX- OUT,
- green – DMX+ IN,
- blue – DMX+ OUT.

7 Dimensions





8 Technical data

type	PX837
power supply	24V DC
number of LEDs	4
diode type	RGBW Mono: 2700K / 3000K / 4000K / 5000K / 6500K DW: 2700K – 5000K
current consumption	DW max. 0.27A RGBW max. 0.5A
beam angle	10°, 25°, 40°
control	DMX / RDM
housing	aluminum
available housing colors	white, gray, black
cable length	3m
IP rate	IP65
weight	1.1kg
dimensions	lenght: 135,5mm (with handle) diameter: 59mm (lamp)

Podłęże, 03.08.2023

DECLARATION OF CONFORMITY

PXM Marek Żupnik spółka komandytowa
Podłęże 654, 32-003 Podłęże

we declare that our product:

Product name: PxSpot 4 H 24V DMX

Product code: PX837

meets the requirements of the following standards, as well as harmonised standards:

PN-EN IEC 63000:2019-01	EN IEC 63000:2018
PN-EN 60598-1:2015	EN 60598-1:2015
PN-EN 62471:2010	EN 62471:2008
PN-EN 61000-4-2:2011	EN 61000-4-2:2009
PN-EN IEC 61000-6-1:2019-03	EN IEC 61000-6-1:2019
PN-EN 61000-6-3:2008	EN 61000-6-3:2007

and meets the essential requirements of the following directives:

2011/65/UE DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment
Text with EEA relevance.

2014/30/UE DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast)
Text with EEA relevance.

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