PX854

Driver LED C.C.

4 x 350mA IP

User manual

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1 Description

The PX854 driver is designed for current-based control of LEDs. The built-in DMX receiver allows for control of 1 – 4 channels.

The device is housed in an IP65-rated housing and is programmed exclusively via the RDM protocol.

The PX854 can be controlled either by DMX or standalone. In this case, the user has access to a fully programmable scene and a pre-programmed sequence. Thanks to the 16-bit resolution, parameter control at a PWM frequency of 1.5 – 24kHz for individual channels is completely seamless.

The driver features a built-in frequency tuning system for the control signal (*flicker-free* technology), making it particularly suitable for use in the television industry.

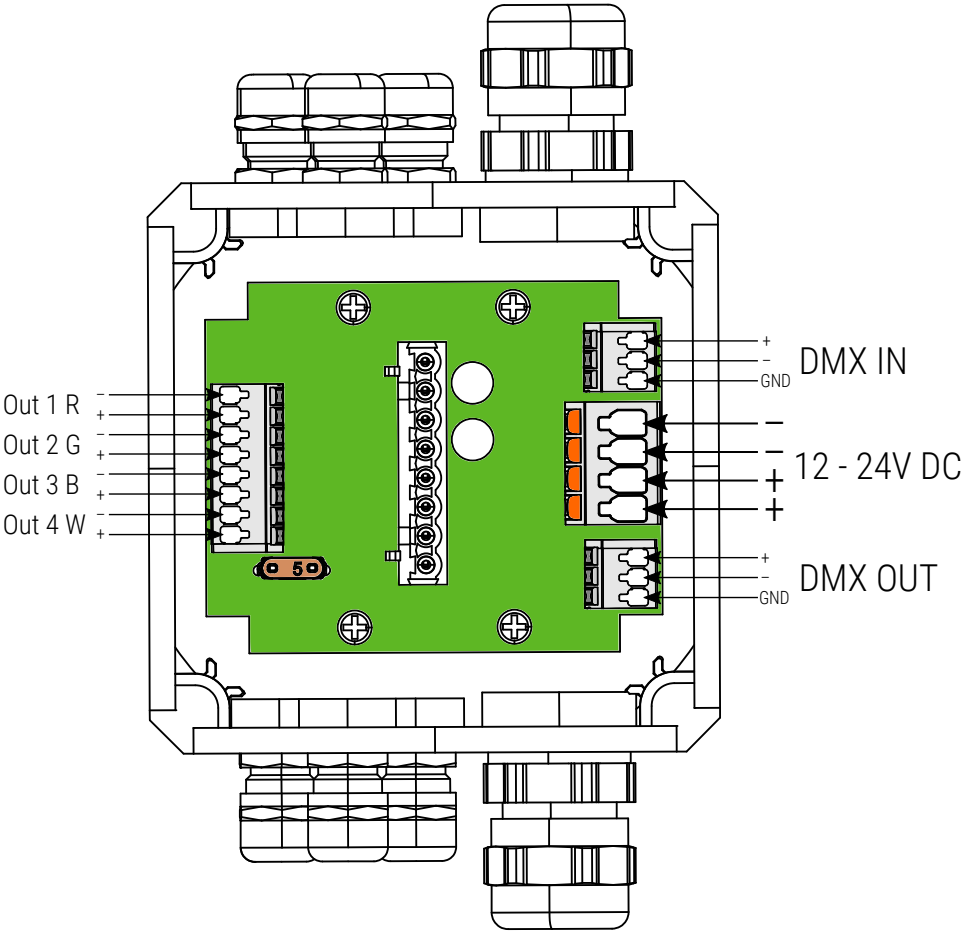
Because RGB / RGBW LEDs often vary significantly in their parameters, this can cause problems with achieving a white color (all channels are 100% driven). Therefore, the PX854 is equipped with an extremely useful white balance function. This feature allows you to adjust the module's color control for each set of LEDs to achieve white at full output. Furthermore, this function also allows you to adjust the color temperature of the white color.

2 Safety conditions

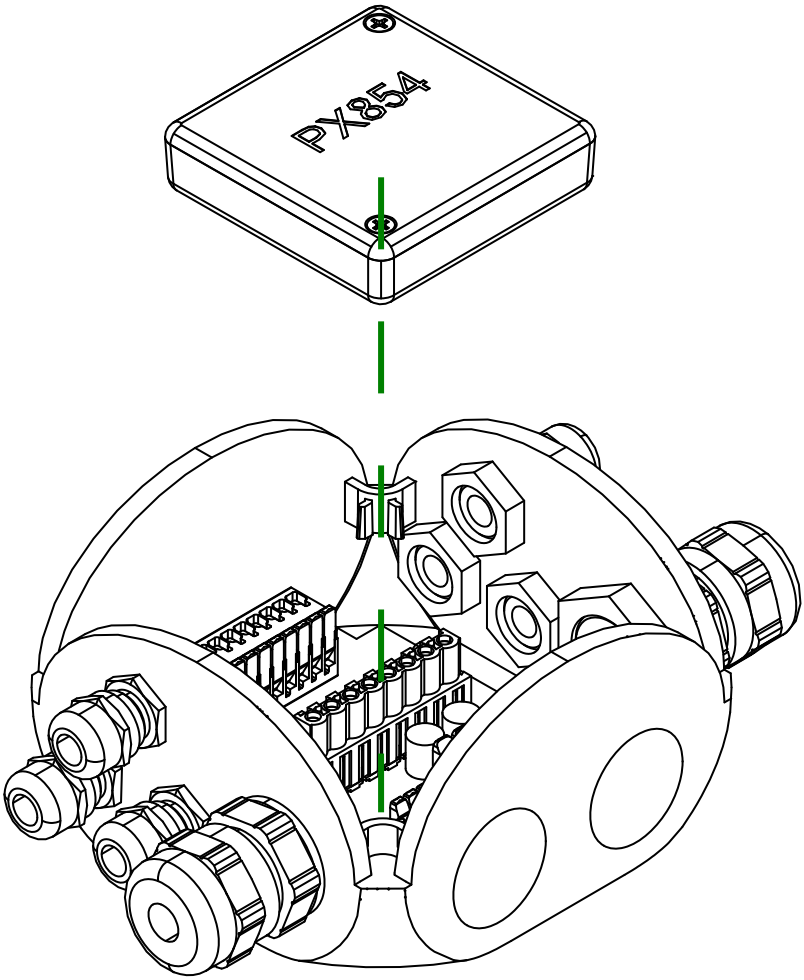
The PX854 device is powered by a safe voltage of 7 – 24V DC, however, during its installation and use, the following rules must be strictly observed:

1. The device may only be connected to 7 – 24V DC with current-carrying capacity compatible with technical data.
2. All the conductors should be protected against mechanical and thermal damage.
3. In the event of damaging any conductor, it should be replaced with a conductor of the same technical data.
4. Connection of DMX signal can only be made with shielded conductor.
5. All repairs and connections of outputs or DMX signal can only be made with cut off power supply.
6. Do not connect a device with visible damage to the power supply.
7. All sudden shocks, particularly dropping, should be avoided.
8. Clean with damp duster only.

3 Connectors and control elements



For easier cable installation, the control module can be removed.



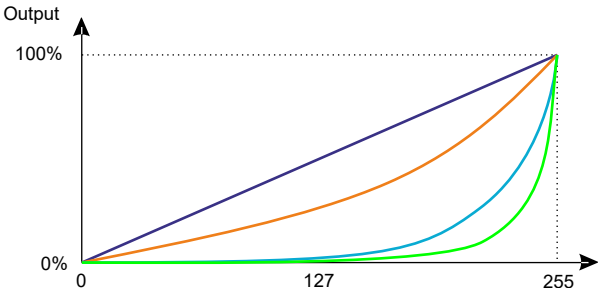
4 RDM – available parameters

PX854 supports the DMX – RDM protocol. The DMX protocol is designed to allow unidirectional data flow, while its extension – the RDM protocol can transmit information in two directions. This allows for simultaneous receiving and sending of information, which enables monitoring the operation of devices compatible with the RDM protocol and possibly changing the configuration of their operating parameters.

Via RDM in PX854 you can:

- set the initial DMX address – in the range 1 – 512,
- select the operating mode:
  - *Group (1ch)* – the user sets one DMX channel that will control all outputs,
  - *Individual (4ch)* – the user sets the DMX channels that will control all outputs individually,
  - *Individual + Dimmer (5ch)* – the user sets the DMX channels that will control all outputs individually + additionally a dimmer,
  - *RGBD + 1 (5ch)* – RGB with dimmer + one individual channel,
  - *DW + DW (4ch)* – the first channel is responsible for white balance, while the second for brightness,
  - *Advanced* – each channel can be addressed individually,
- restore factory settings,
- read the sensor values – driver temperature,
- configure white balance,

- change smoothing settings in the range *1 – 5* or *disable* smoothing,
- change the *No Signal* mode settings – the device's behavior after the DMX control signal is lost:
    - *0 – OFF* (complete shutdown),
    - *1 – ON* (100% activation),
    - *2 – HOLD* (maintaining the last DMX signal value),
    - *3 – SCENE* (activating a defined scene),
    - *4 – EFFECT* (effect mode – pulsating),
- program the scene started in the *No Signal* parameter in *SCENE* mode in the range of 0 – 255 (each channel individually),
- change control frequency:
    - *0* – 1.5kHz,
    - *1* – 3kHz,
    - *2* – 6kHz,
    - *3* – 12kHz,
    - *4* – 24kHz,
- read serial number,
- change control curve:
    - exponential 1,
    - exponential 2,
    - DALI,
    - linear,

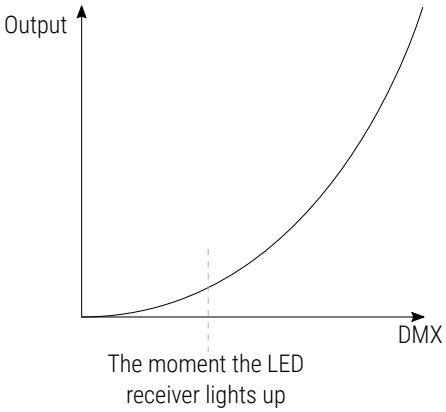


Curves:

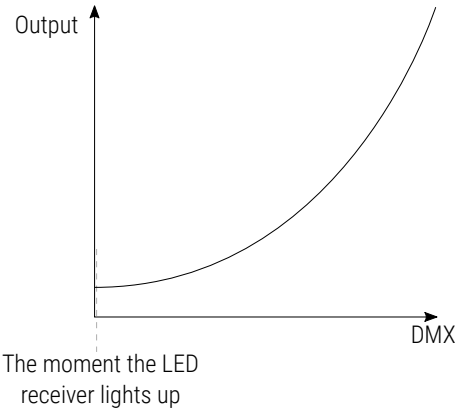
- linear
- E1
- E2
- DALI

- set output offset – allows you to set the level of switching on the diodes, adjustable in the range 0 – 10000.

Offset = 0

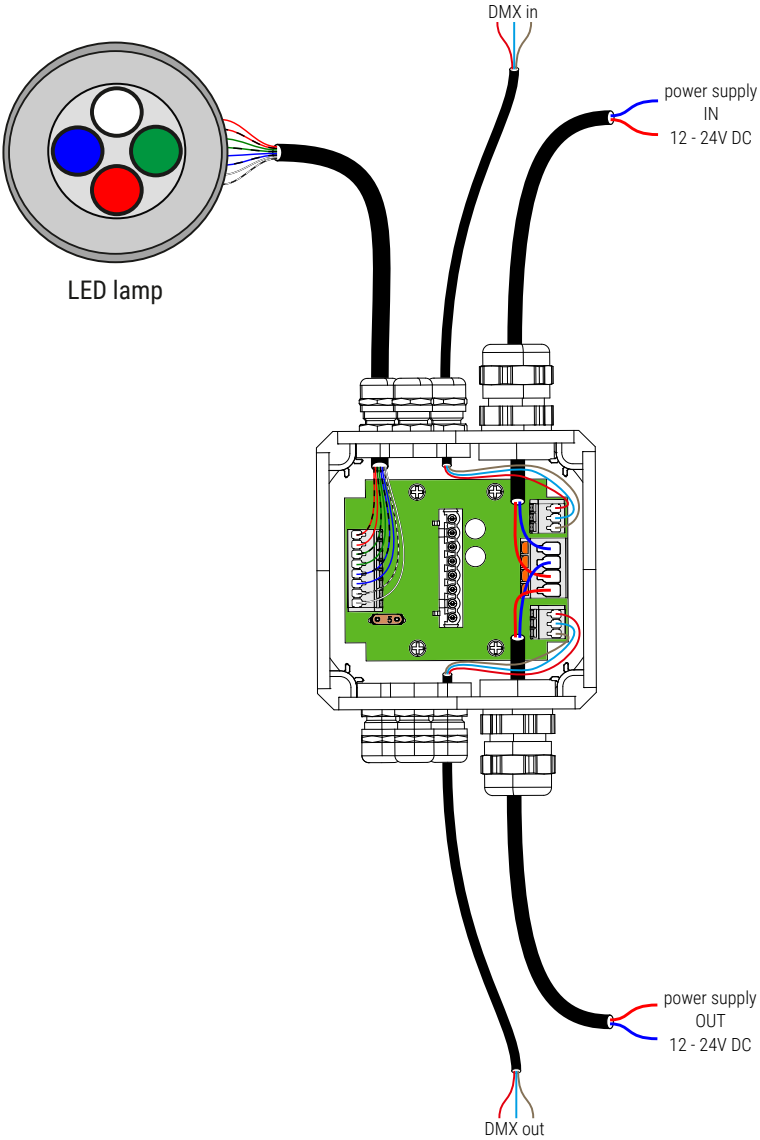


Offset = adapted to the LED receiver's operating characteristics

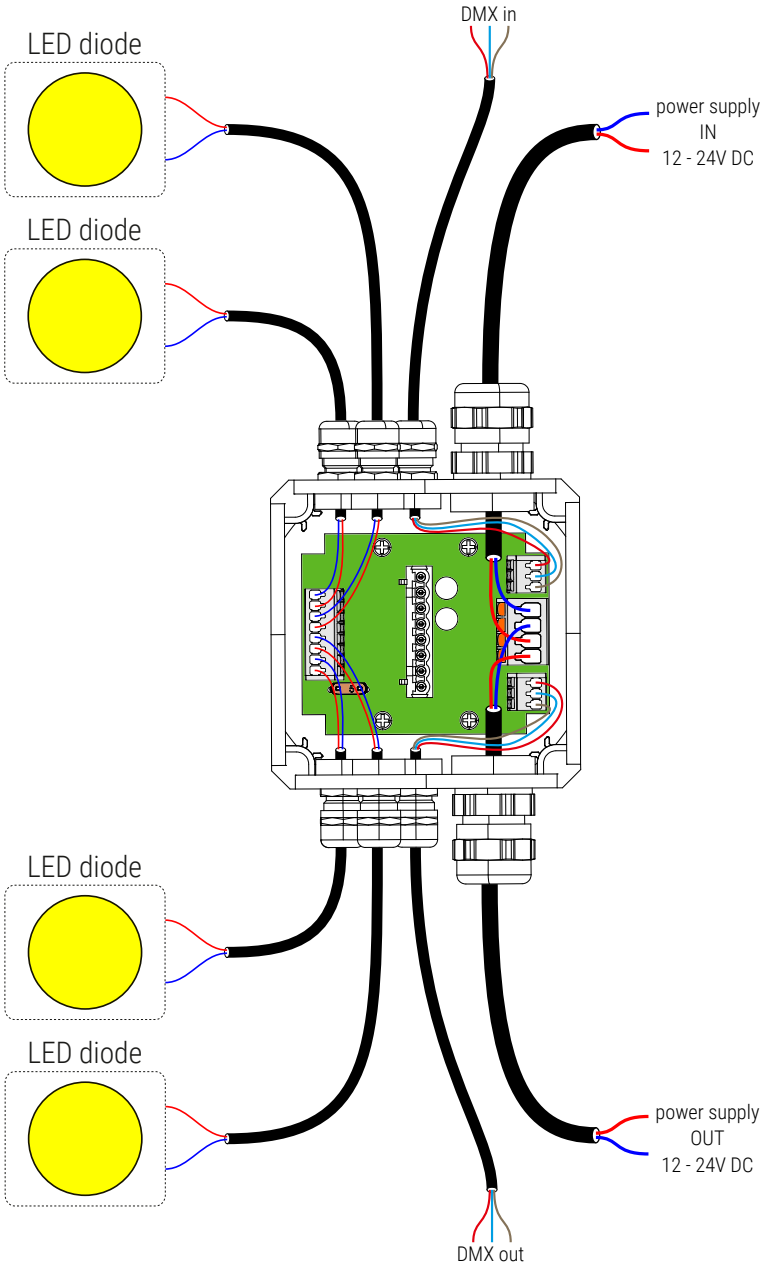


5 Connection scheme

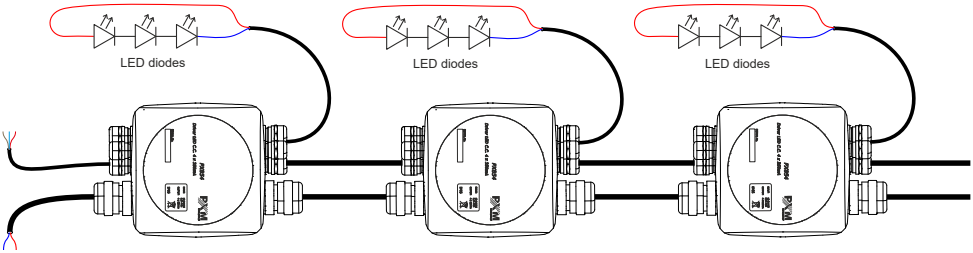
Connecting the RGBW lamp



Connecting MONO diodes (4 x MONO)



The device can be connected to each other

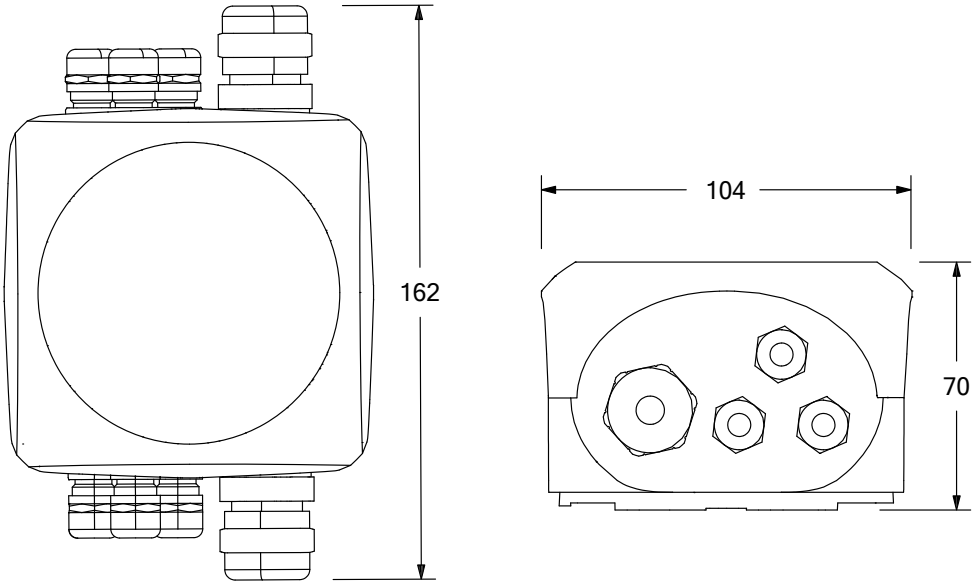


NOTE! In the example connection above, there can be up to 10 devices.

NOTE! A cylindrical plug should be placed in unused bushings and then the bushing should be closed to maintain the tightness of the housing.

Connecting 350mA diodes	
Power supply	**Number of diodes on one channel**
12V DC	1 – 3
24V DC	4 – 6

6 Dimensions



Cable diameter:

- power cable: 6 – 12mm
- DMX cable: 3.5 – 7mm
- lamp / LED power cable: 3.5 – 7mm

7 Technical data

type	PX854
tightness class	IP65
DMX channels	512
RDM protocol support	yes
number of output channels	1 – 4
interpolated output control resolution	16 bit
PWM frequency	1.5 – 24kHz
programmable scenes	1
built-in programs	1
programming	only RDM
output load capacity	4 x 350mA
Master / Slave mode	yes
power consumption	max. 35W
no-load power consumption	max. 2W
housing	plastic – ASA
power supply	12 – 24V DC
weight	0.3kg
dimensions	height: 162mm width: 104mm depth: 70mm

Podłęże, 22.08.2025

DECLARATION OF CONFORMITY

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

we declare that our product:

Product name:	Driver LED C.C. 4 x 350mA IP
Product code:	PX854

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

PN-EN IEC 63000:2019-01	EN IEC 63000:2018
PN-EN 62368-1:2015-03	EN 62368-1:2014
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
PN-EN 60529:2003	EN 60529:1991

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 harmonization of the laws of the Member States relating to electromagnetic compatibility (recast)
Text with EEA relevance.

2014/35/UE DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 February 2014 on the harmonization of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits

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