

PX344

Driver LED C.V.

4x1A IP

User manual



Table of Contents

1 Description.....	3
2 Safety conditions.....	4
3 Connectors and control elements.....	5
4 RDM – available parameters.....	7
5 Connection scheme.....	10
6 Dimensions.....	13
7 Technical data.....	14

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

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1 Description

Driver PX344 is designed for voltage control of LED diodes. Built-in DMX receiver allows control of 1 – 4 channels.

The device is housed in a housing that provides IP65 protection class, and its programming is done exclusively via the RDM protocol.

PX344 can be controlled by DMX signal or operate independently. In this case, the user has a fully programmable scene and factory-programmed sequence. Thanks to the use of 16-bit resolution at PWM frequency 1.5 – 24kHz, control of the parameters of individual channels is completely smooth.

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

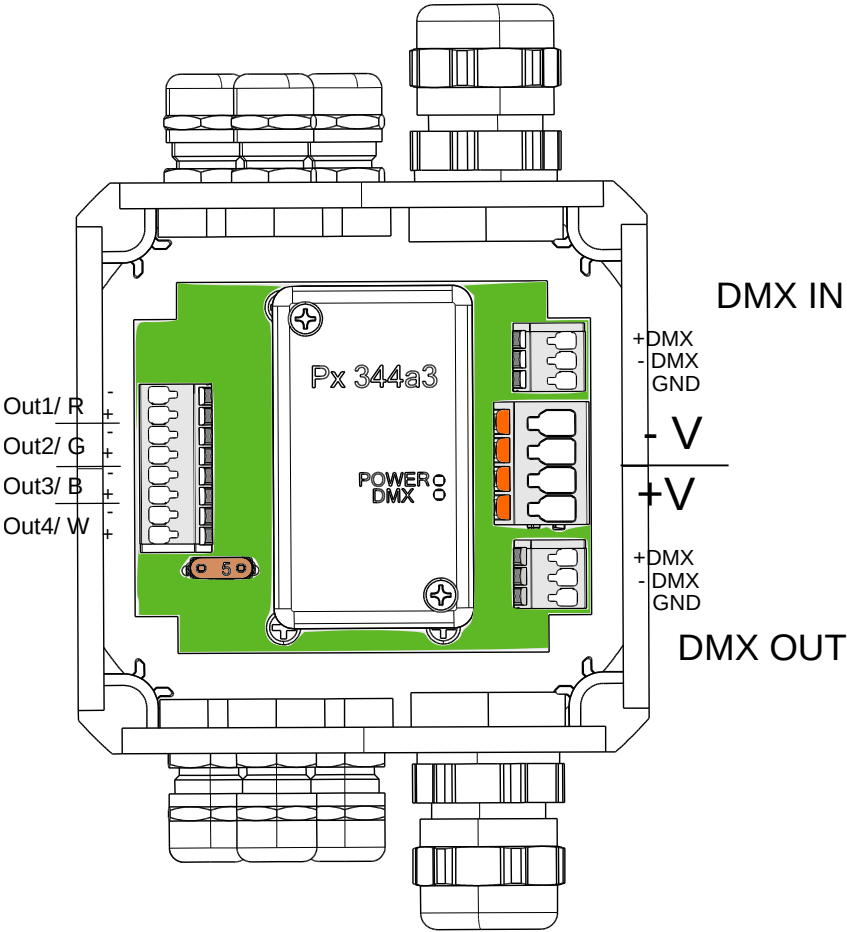
Since RGB/RGBW series LEDs often differ significantly in parameters, this can cause problems in obtaining white color (control of all channels at 100%). Therefore, PX344 has been equipped with an extremely useful function, the so-called white balance. Thanks to it, you can select for each set of LEDs such corrected control of individual colors by the module, so that at full control white color is achieved. What's more, this function also allows you to correct the color temperature of white color.

2 Safety conditions

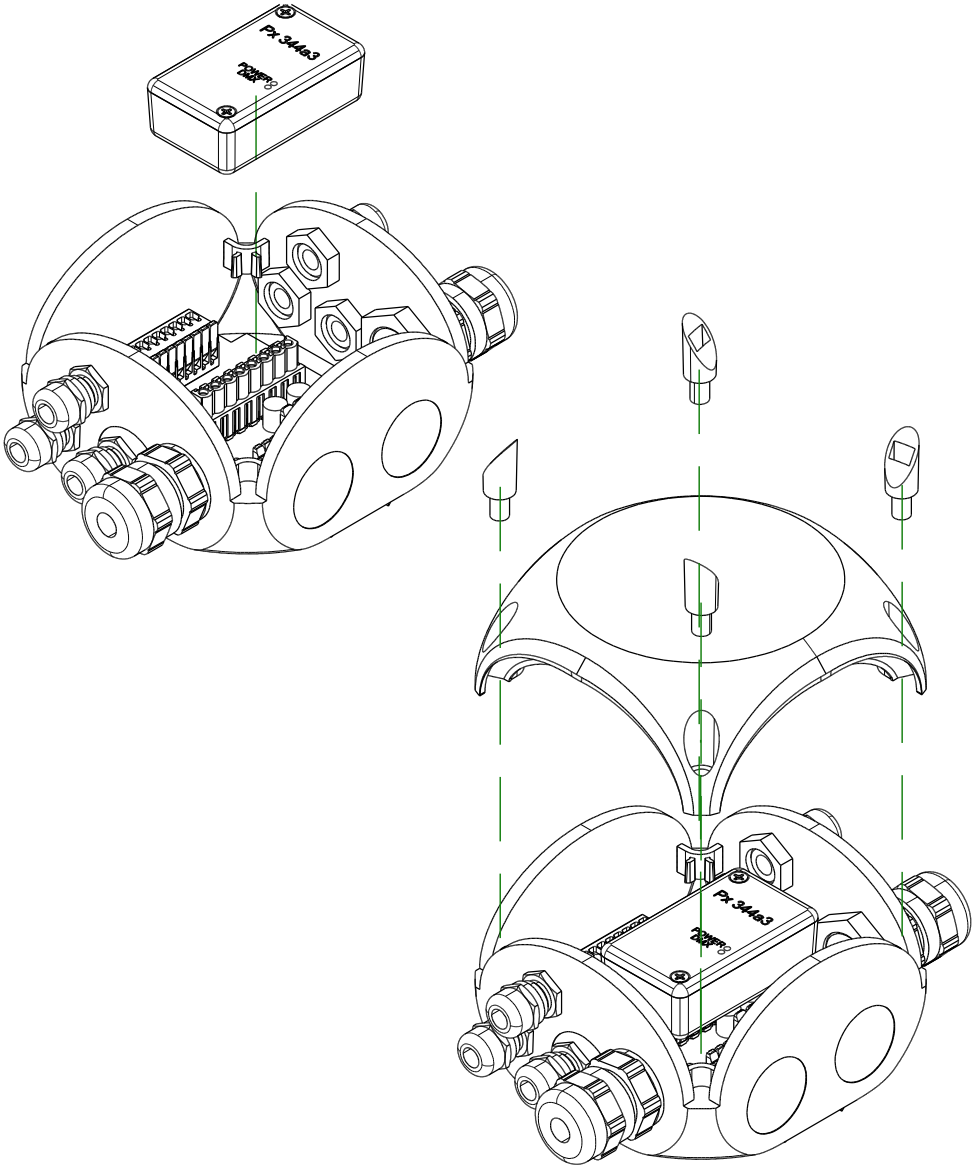
The PX344 device is powered by a safe voltage of 7 – 24V DC, however, during its installation and use, the following rules must be strictly observed:

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.



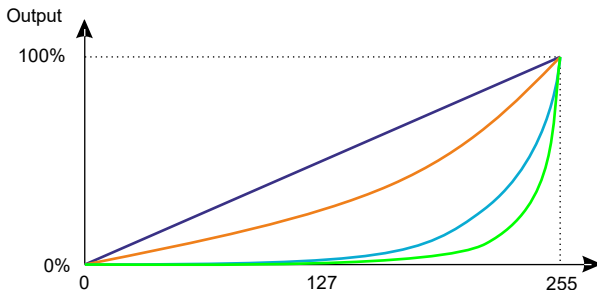
4 RDM – available parameters

PX344 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 PX344 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,

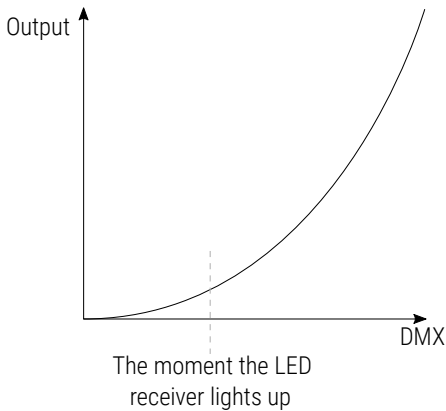


Curves:

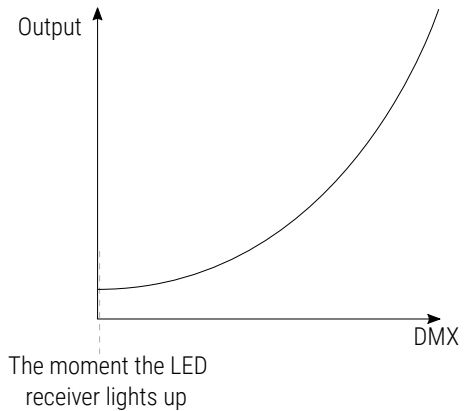
- linear
- E1
- E2
- DALI

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

Offset = 0

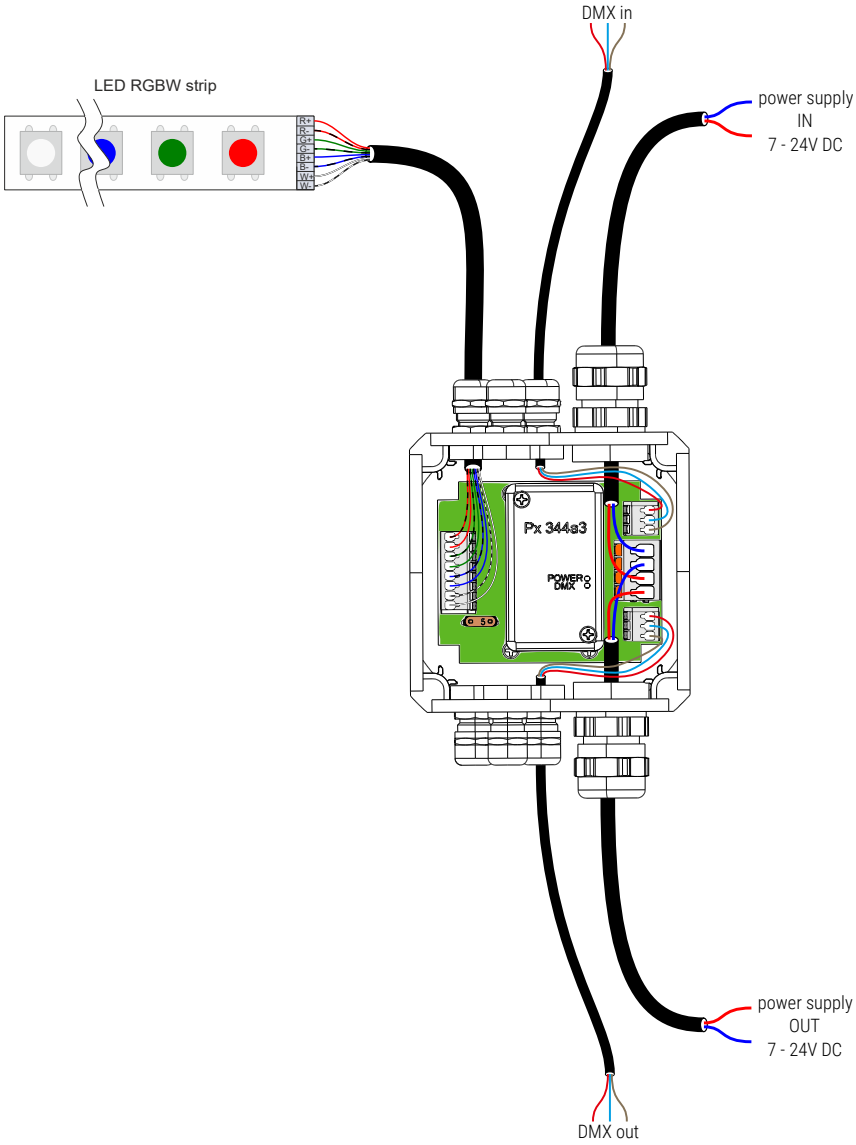


Offset = adapted to the LED receiver's operating characteristics

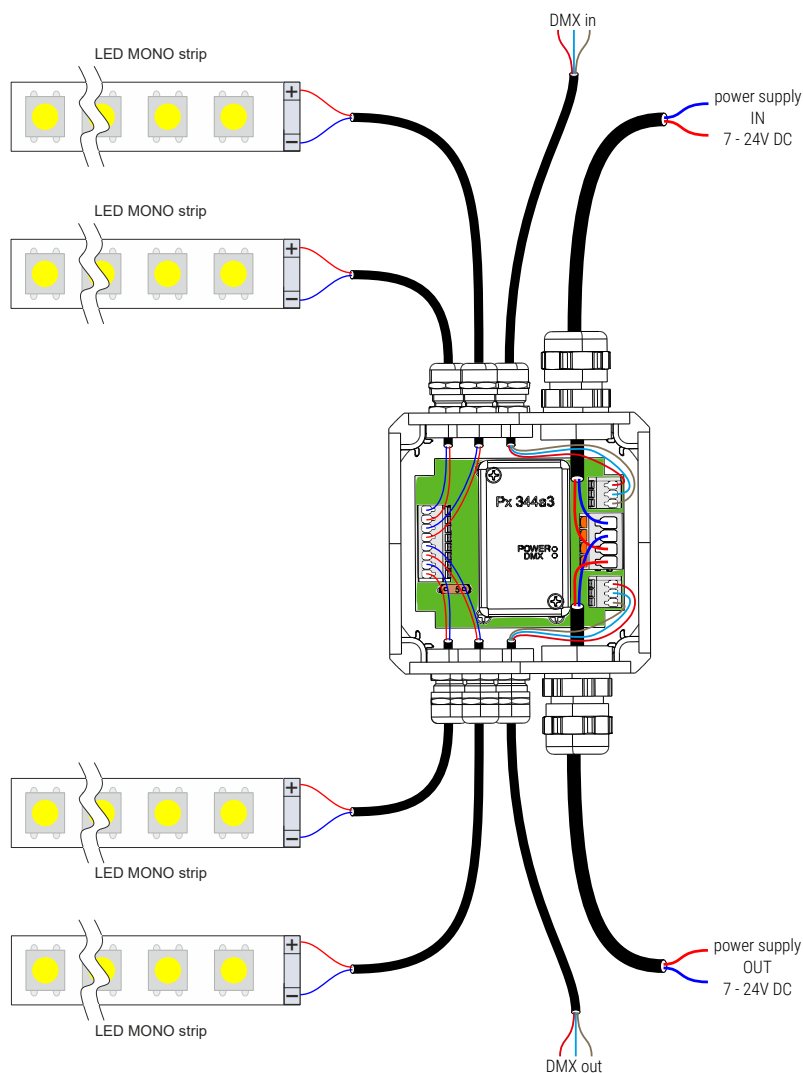


5 Connection scheme

Connecting the RGBW strip*

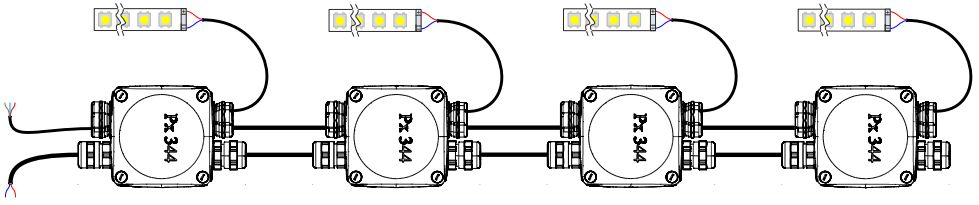


Strap connection* MONO (4 x MONO)



* typical LED strips are powered by 24V DC – then a 24V DC power supply with appropriate power should also be connected to the PX344, in the case of using LED strips powered by a different voltage, a power supply with the same voltage and power adapted to the length of the strip should be connected to the PX344.

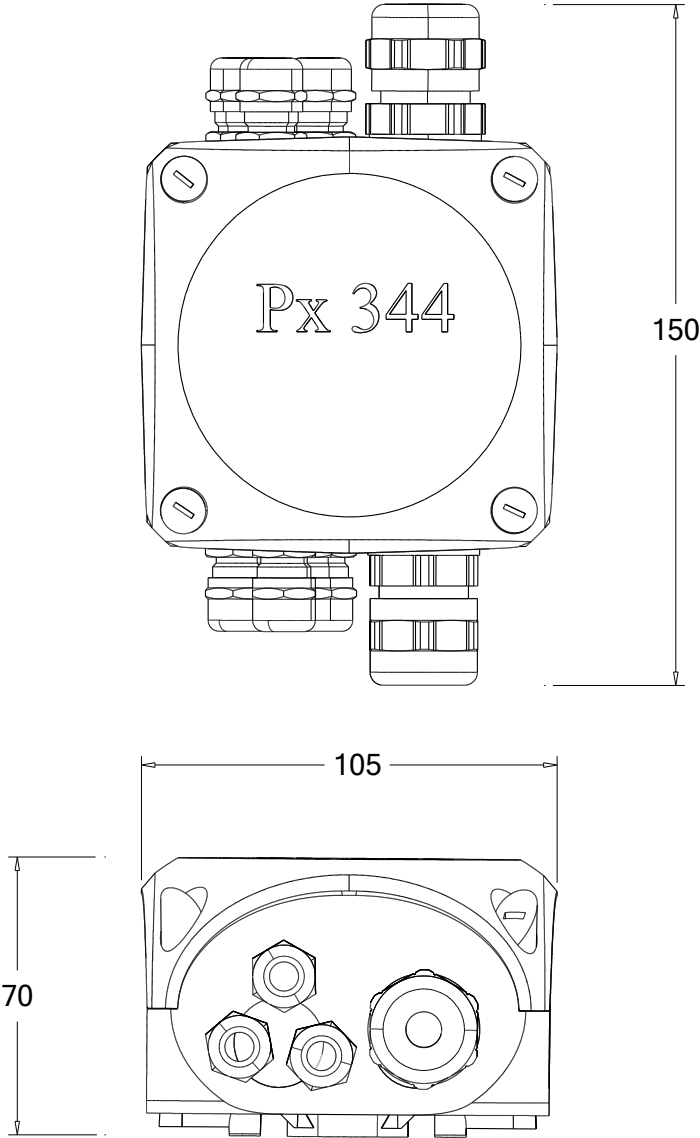
The device can be connected to each other



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

6 Dimensions



7 Technical data

type	PX344
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	total max. 4A
Master / Slave mode	yes
power consumption	max. 4A
no-load power consumption	max. 2W
housing	plastic – ASA
power supply	7 – 24V DC
weight	0.3kg
dimensions	height: 150mm width: 105mm depth: 70mm

DECLARATION OF CONFORMITY

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

we declare that our product:

Product name: Driver LED C.V. 4x1A IP

Product code: PX344

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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