

PX165

Splitter DMX

User manual



Table of Contents

1 Description.....	3
2 Safety conditions.....	4
3 Connectors and control elements.....	5
4 DMX signal connection.....	6
5 Information communicated by LED indicator.....	7
6 Connection scheme.....	8
7 Dimensions.....	10
8 Technical data.....	11

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

PXM Marek Żupnik sp.k.
Podłęże 654
32-003 Podłęże
BDO register number 000005972

tel. +48 12 385 83 06
mail: info@pxm.pl
www.pxm.pl

Rev.1-7
09.12.2020

1 Description

DMX signal splitter enables branching in complex DMX installations. The combination of a large number of receivers in series can be troublesome, therefore it was possible to create branching DMX tracks using a splitter.

With PX165, it possible to split the DMX input signal into 6 independent branches. The individual outputs are galvanically isolated from input and between each other. The output signals are appropriately reinforces, which guarantees correct operation of the entire installation. Splitter DMX is manufactured in a housing adapted for mounting on standard DIN 35mm rails.

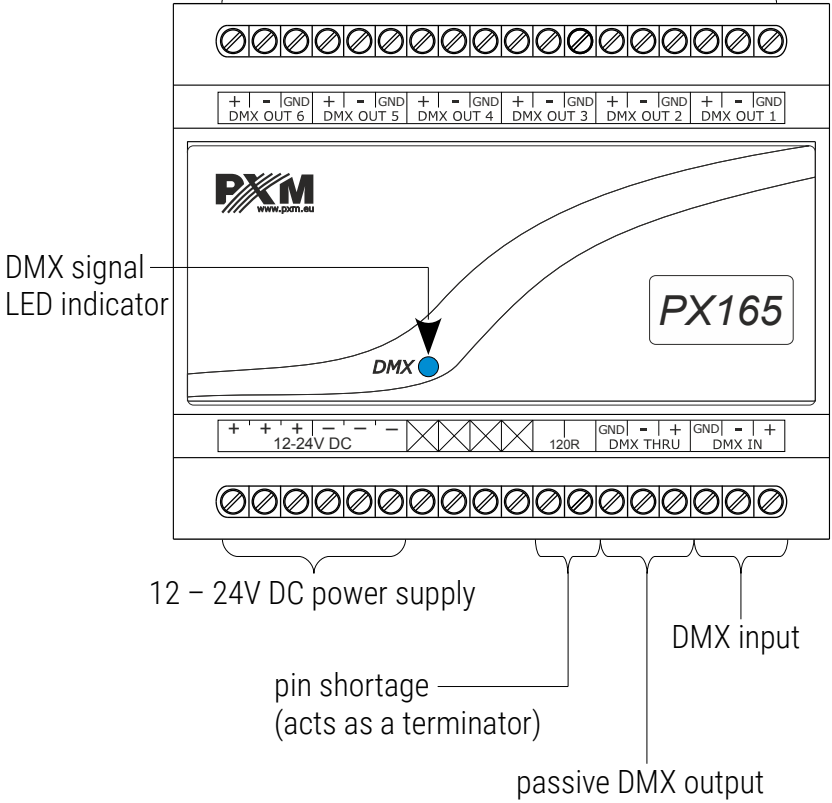
2 Safety conditions

PX165 Splitter DMX is a device powered with safe voltage 12 – 24V DC, however, during its installation and use the following rules must be strictly observed:

1. The device may only be connected to 12 – 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 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. PX165 should be strictly protected against contact with water and other liquids.
7. All sudden shocks, particularly dropping, should be avoided.
8. The device with damaged (cracked) casing cannot be connected to the mains.
9. The device cannot be turned on in places with humidity exceeding 90%.
10. The device cannot be used in places with temperature lower than +2°C or higher than +40°C.
11. Clean with damp duster only.

3 Connectors and control elements

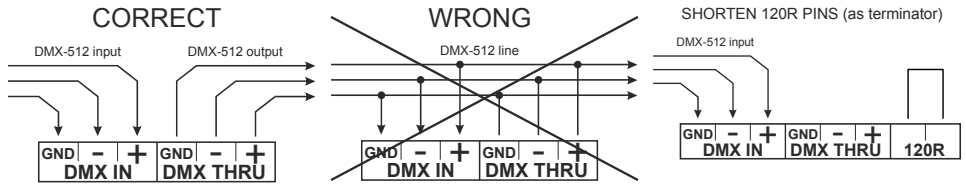
6 DMX outputs
(optically and galvanically isolated)



4 DMX signal connection

PX165 have to be connected to DMX line in serial mode, with no branches on DMX control cable. That mean that DMX line, from the signal source, must be connected to **DMX IN** pins of PX165 and later, directly from **DMX THRU** pins to the next device in DMX chain.

If the PX165 is the last DMX chain receiver (there is no connected receiver for the **DMX THRU** output), it is necessary to shorten **120R** pins – the bridge on these pins will act as a terminator (120 Ohm resistor).



Each of the six splitter outputs is treated as the start of a new DMX line. A maximum of 32 devices can be connected with the DMX line, with the length up to 500 meters. In the last device of each DMX output line it is necessary to connect the terminator.

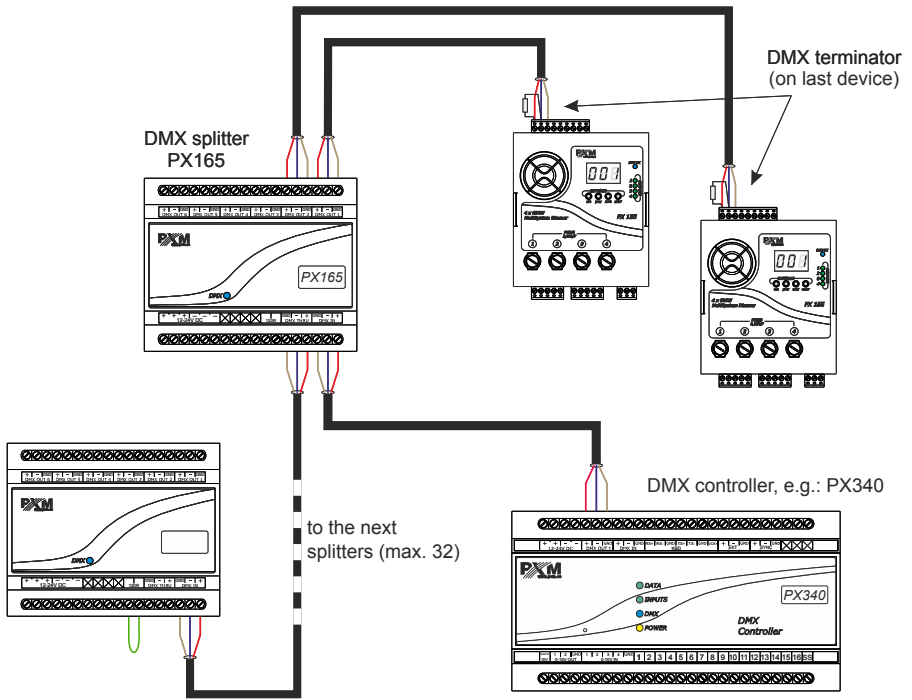
5 Information communicated by LED indicator

On the device housing there is a diode indicating the operating status of the device.

Action	Function
blinks two times blue	power connection
blinking in blue (every 0,5s)	DMX signal transmission
fast blink (every 3s) in blue	the device does not receive the DMX signal

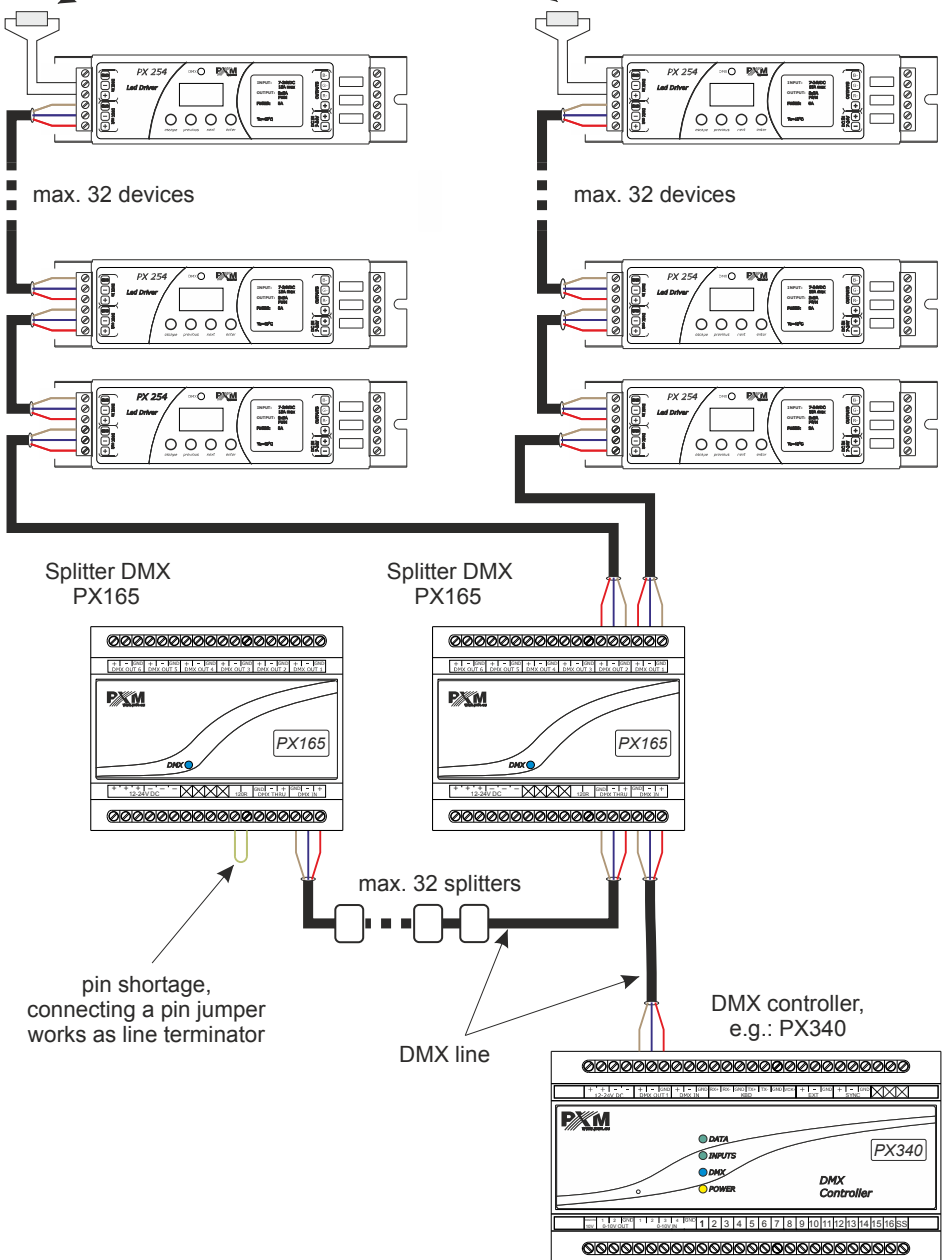
6 Connection scheme

a) connection of the DMX controller and two dimmers to DMX outputs

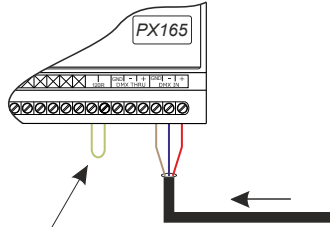


b) connection of a DMX controller and up to 32 devices on DMX lines

DMX terminator connected in the last device
(120Ω resistor connected between the DMX+ and DMX-)

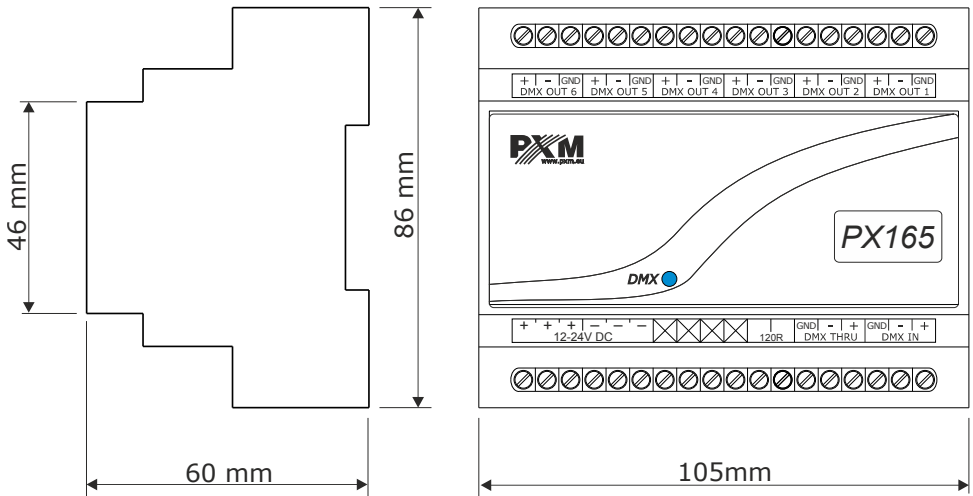


c) shorting of 120R pins – if the splitter is the last device and no receiver is connected to the *DMX THRU* output, the bridge on these pins acts as a terminator



shorting of 120R pins,
(works like connecting a terminator,
if the splitter is the last device)

7 Dimensions



8 Technical data

type	PX165
power supply	12 – 24V DC
DMX channels	512
number of DMX inputs	1
number of DMX outputs	6
optical isolation of DMX lines	yes
built-in terminator	yes (shorting of two 120R pins)
breakdown voltage of the I / O isolation	>1000V
power consumption	max. 7W
weight	0.2kg
dimensions	width: 105mm (6 DIN modules) height: 86mm depth: 60mm

NOTE! Starting from device with serial number 13030326 power supply voltage range of 12V DC has been extended to 12 – 24V DC.

DECLARATION OF CONFORMITY

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

we declare that our product:

Product name: Splitter DMX

Product code: PX165

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

PN-EN IEC 63000:2019-01

EN IEC 63000:2018

PN-EN 55103-1:2012

EN 55103-2:2009

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.


Marek Żupnik spółka komandytowa
32-003 Podłęże, Podłęże 654
NIP 677-002-54-53



mgr inż. Marek Żupnik.