

PX796

Wireless 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

PX796, depending on the configuration, can be a transmitter or a receiver of a wireless DMX signal.

Wireless DMX is a device that allows you to connect easily, without using wires, installations based on the DMX512 control system. In order to create an installation using wireless DMX signal transmission, two devices of this type should be used, set in transmitting and receiving mode (works with PX795 and PX796-IP). Configuration is very simple and is carried out at the touch of a button. The 2.4GHz band in which communication occurs ensures long range and unnoticeable delays.

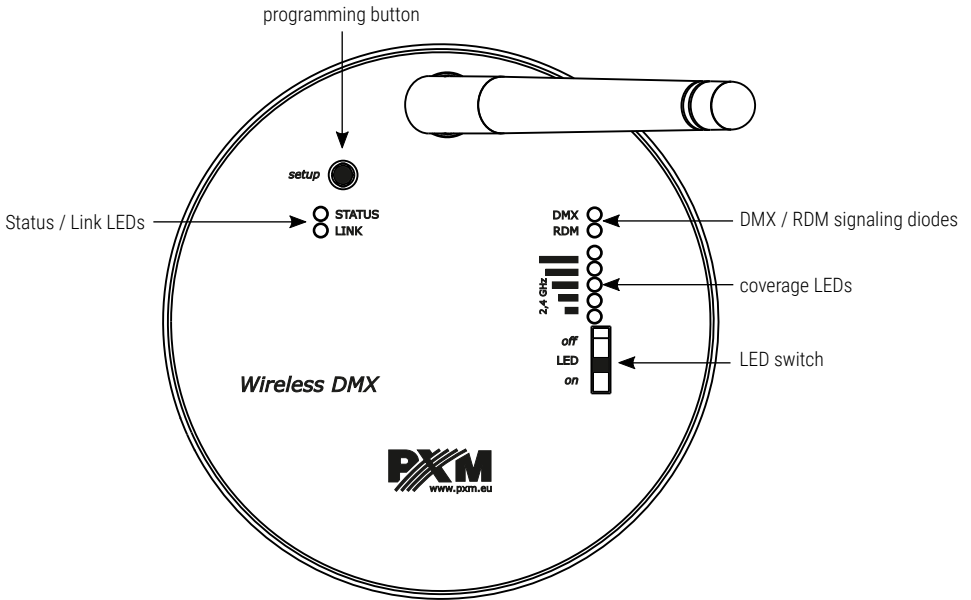
The PX796 has a metal housing adapted for wall mounting (or to a standard ø60mm flush-mounted box) and is supplied with 12 – 24V DC safe voltage.

2 Safety conditions

PX796 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. Only a shielded cable should be used to connect the DMX signal.
5. All repairs and power connection or DMX signals can be made with cut off power supply.
6. PX796 should be strictly protected against contact with water and other liquids.
7. All sudden shocks, particularly dropping, should be avoided.
8. The device cannot be turned on in places with humidity exceeding 90%.
9. The device cannot be used in places with temperature lower than +2°C or higher than +40°C.
10. Clean with damp duster only.

3 Connectors and control elements



4 Operating mode

The PX796 device can operate in two modes: transmitter and receiver. The user can pair more than one receiver with the transmitter. The operating mode can be changed by using the *programming button* and the *Status* diode signaling.

NOTE! The description of the change of operating mode will use the words *short press* and *long press*. *Short* lasts from 10 – 500ms, *long* while over 3s.

To change the operating mode:

1. Five (5) times briefly press the programming button and then one (1) once for a long time.
2. The *Status* LED will flash to indicate the selected operating mode.

Transmitter (*Status* LED blinking every 500ms)



Receiver (*Status* LED blinking every 50ms)



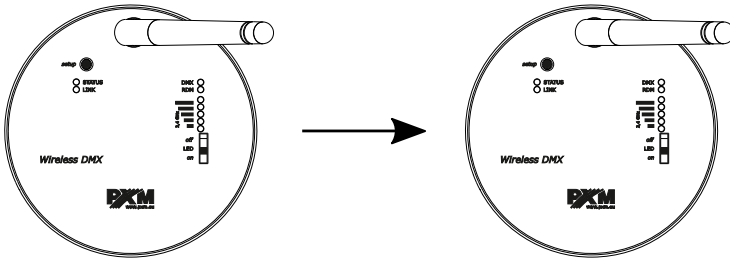
3. Each short press will change the operating mode.
4. To save the selection, press the button longer. The operating mode will be saved and the device will restart.

5 Pairing devices

In order to connect the transmitter with the receiver, set them in the appropriate operating modes as described in section 4. Operating mode. The devices can be connected in several ways:

- transmitter → receiver,
- transmitter → several receivers,
- several transmitters → several receivers.

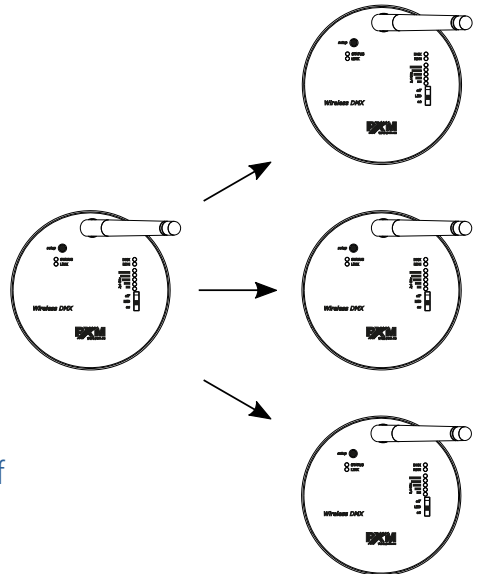
5.1 Transmitter → receiver



Pairing with a receiver that is not assigned to another transmitter is only possible if the devices are within range. In the transmitter, press the programming key for 0.1 – 1s. Pairing will occur automatically.

5.2 Transmitter → several receivers

Pairing with receivers that are not assigned to another transmitter is only possible if the devices are within range. In the transmitter, press the programming key for 0.1 – 1s. Pairing with all receivers within range of the transmitter will occur automatically.

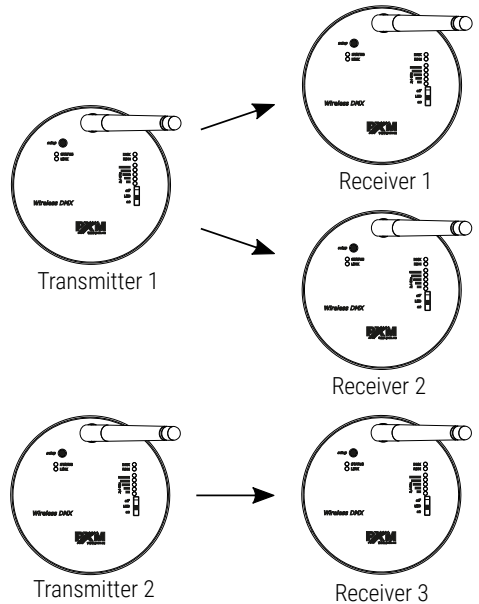


NOTE! You can pair an infinite number of receivers to one transmitter.

5.3 Several transmitters → several receivers

Pairing with receivers that are not assigned to another transmitter is only possible if the devices are within range. If there are several transmitters and several receivers in the installation (sample configuration), and all of them are within range:

1. Switch on only those receivers (1 and 2) to be assigned to *Transmitter 1*.
2. In *Transmitter 1* press the programming key for 0.1 – 1s (connecting with transmitters that are within its range and not assigned another transmitter, it will occur automatically).
3. Switch on the receivers (3) to be assigned to *Transmitter 2* (there is no need to switch off the receivers assigned to *Transmitter 1* – they are already assigned).
4. In *Transmitter 2*, press the programming key for 0.1 – 1s (connecting with transmitters that are within its range and not assigned another transmitter, it will occur automatically).



There is also another possibility for such pairing:

1. Switch all receivers on.
2. In *Transmitter 1*, press the programming key for 0.1 – 1s (connecting with transmitters that are within its range and not assigned another transmitter, it will occur automatically).
3. Disconnect the *Receiver 3* (hold the programming key in it for more than 3s in it – more information in point 5.4. Disconnecting devices) *with Transmitter 1*.
4. In *Transmitter 2*, press the programming key for 0.1 – 1s (connecting with transmitters that are within its range and not assigned another transmitter, it will occur automatically).












5.4 Disconnecting devices









Each receiver can be disconnected from the transmitter by pressing the programming button on the receiver for more than 3s. This option allows to disconnect a single receiver from the transmitter.

The transmitter can be disconnected from all receivers connected to it simultaneously. To do this, hold down the programming key on the transmitter for more than 3s. This option allows to disconnect all receivers from the transmitter.

6 Indicator lights

PX796 device is equipped with 4 lights and a range indicator:

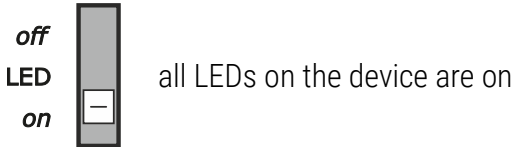
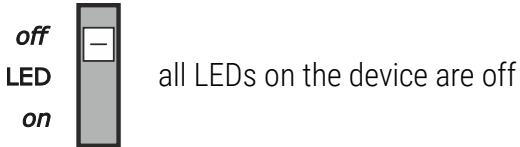
Light	Mode	Action	Function
green Status 	transmitter	 flashes every 900ms	active radio link, no DMX present
		 constant on	active radio link, DMX data present
		 flashes every 100ms	linking receivers
		 flashes every 200ms	unlinking receivers
	receiver	 constant off	not linked to any transmitter
		 flashes every 100ms	linked to a transmitter, but no active radio link
		 flashes every 900ms	active radio link, no DMX present
		 constant on	active radio link, DMX data present
	programming	 flashes every 500ms	transmitter mode
		 flashes every 50ms	receiver mode

green Link 	transmitter	constant off	no radio link activity
		constant on	active radio link
	receiver	constant off	no connection to the transmitter
		constant on	connected to the transmitter
yellow DMX 	transmitter / receiver	constant off	no DMX transmission
		constant on	DMX transmission
blue RDM 	transmitter* / receiver	constant off	no RDM transmission
		constant on	RDM transmission
signal level (2.4GHz)	receiver		signal below 10%
			signal above 20%
			signal above 40%
			signal above 60%
			signal above 80%

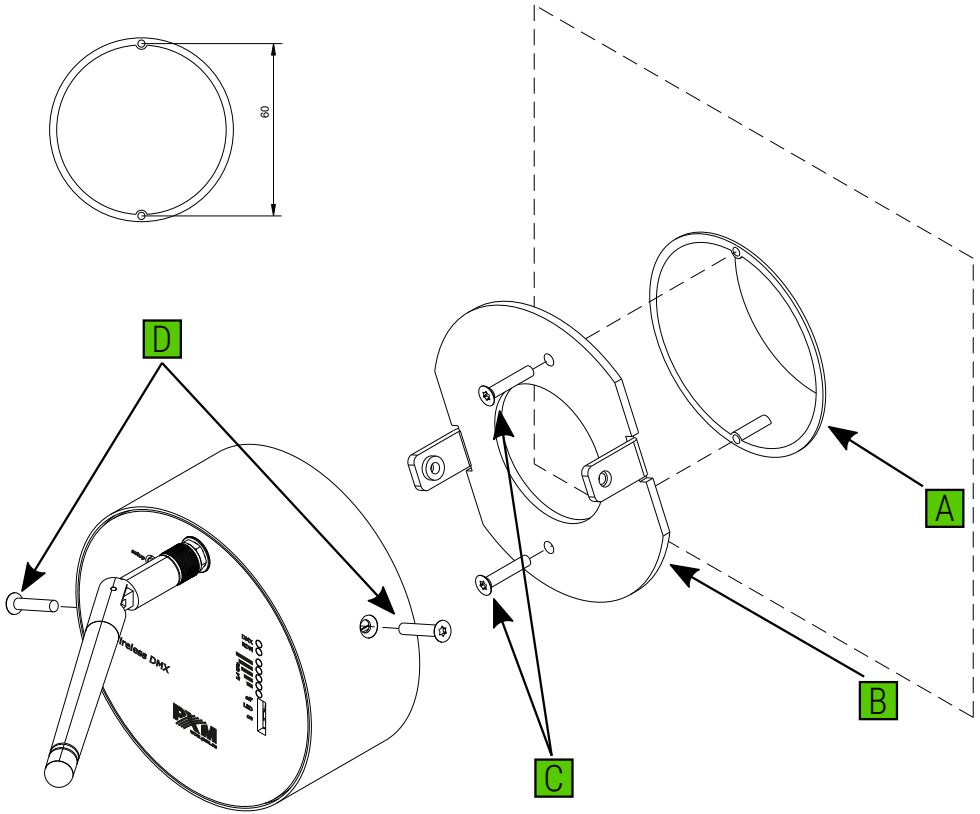
* - only an LumenRadio device can be used as an RDM transmitter

6.1 Dark mode

The PX796 has a switch to enable or disable the signaling diodes and range indicator. This option is usually used after configuring the device. To turn off all LEDs, set the *LED* switch to *OFF*, while to turn on the LEDs, set the *LED* switch to *ON*.

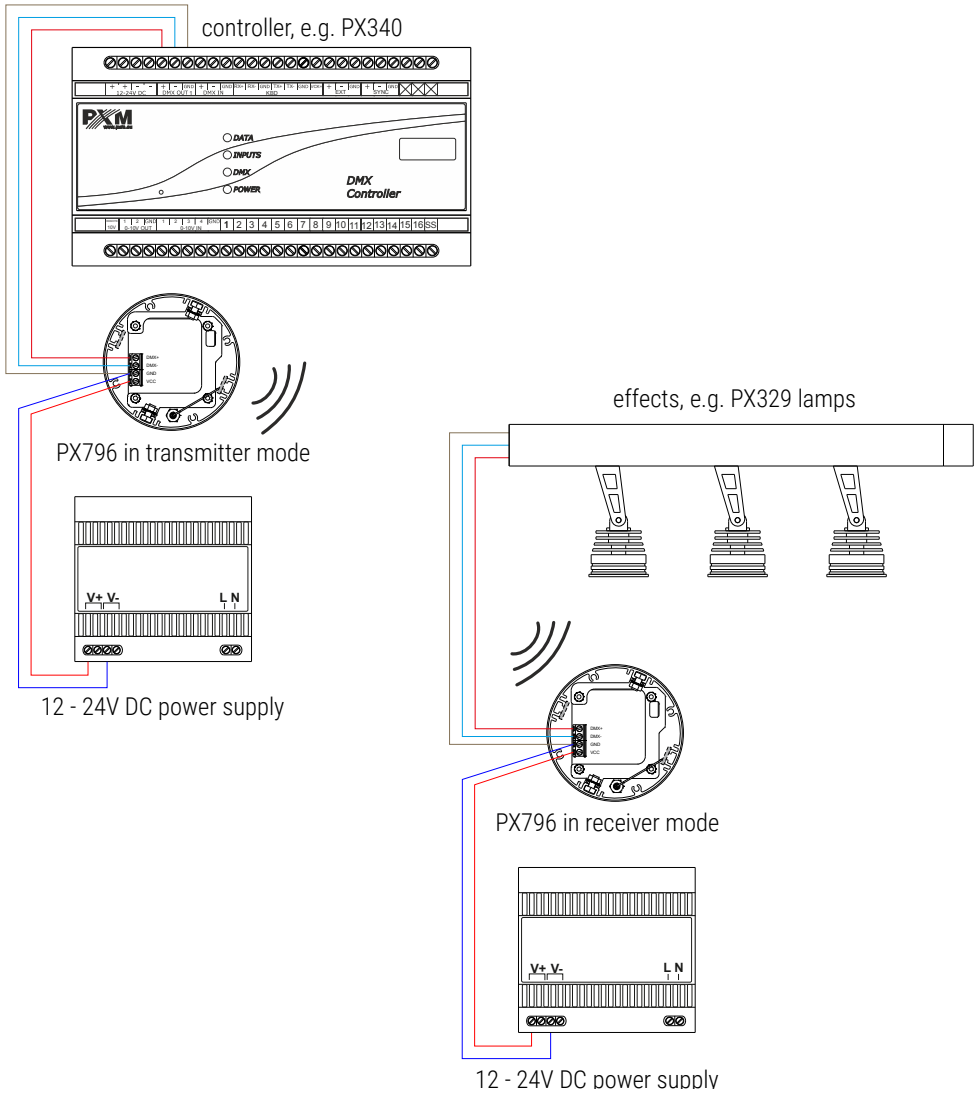


7 Montague

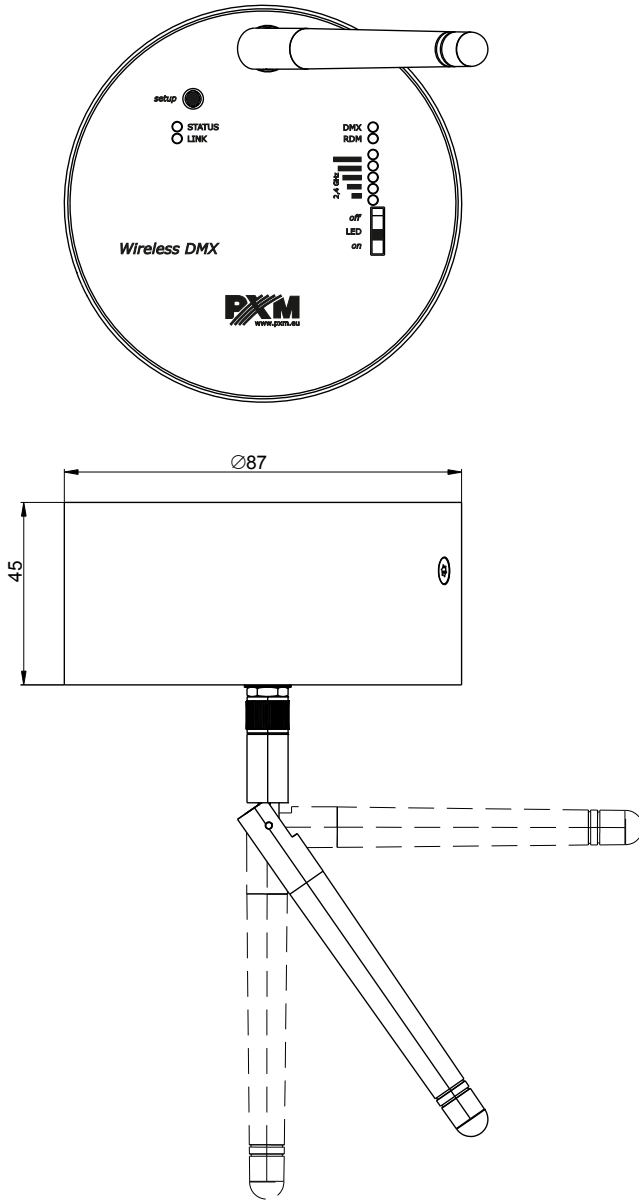


1. Mount a flush-mounted box (A) of standard 60mm size or drill holes in the wall.
2. Fasten the mounting plate (B) to the box (A) or wall using screws (C) and wall plugs.
3. Screw the housing with electronics to the mounting base (B) with the screws (D).

8 Connection scheme



9 Dimensions



10 Technical data

type	PX796
power supply	12 – 24V DC
number of DMX channels	512
RDM protocol support	yes
transmission speed	0.8 – 830 fps
output power	5 – 20 dBm
frequency	2.4GHz
range (receiver – transmitter) *	max. 1km
operating mode	transmitter / receiver
power consumption	max. 0.5W
weight	0.2kg
dimensions	diameter: 87mm depth: 45mm

* - in open space and in favorable weather conditions, without any obstacles between devices

DECLARATION OF CONFORMITY

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

we declare that our product:

Product name: Wireless DMX

Product code: PX796

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

PN-EN IEC 63000:2019-01	EN IEC 63000:2018
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-ETSI EN 300 328 V2.2.2:2020-03	ETSI EN 300 328 V2.2.2:2019

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.

2014/53/UE DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC


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