

PX385

DMX/0-10
Interface 1ch

MANUAL



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

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1. GENERAL DESCRIPTION

The PX385 module is used to process DMX-512 signal to analogue control 0 - 10 V or 1 - 10 V with a relay (Relay Mode).

The DMX/0-10 Interface 1ch has a DMX connector and 1 output voltage channel.

PX385 can be controlled using a DMX signal (the device has a built-in DMX-512 signal receiver), and it can operate independently. The DMX address for the device is set manually using the DIP switch located on the housing with the RDM protocol or using the PX277 configurator. What is more, the user can set the output value if a DMX signal is lost.

In addition, the device supports the RDM protocol.

The device is manufactured in an aluminium housing. Upon request PX385 is available in a version with IP65, and is sealed in a hermetic housing – the number of cable glands depends on the customer's needs, and is determined when placing an order.

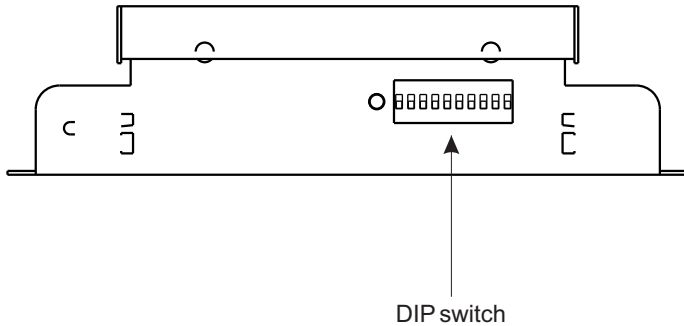
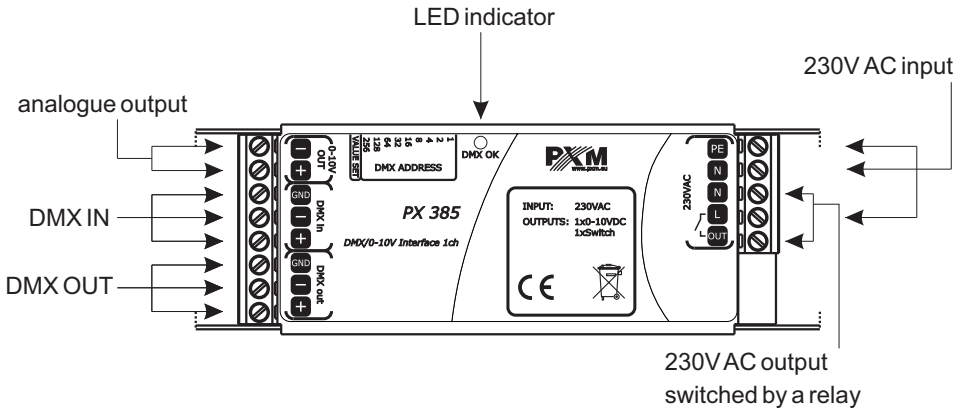
The device is powered by 230V AC.

2. SAFETY CONDITIONS

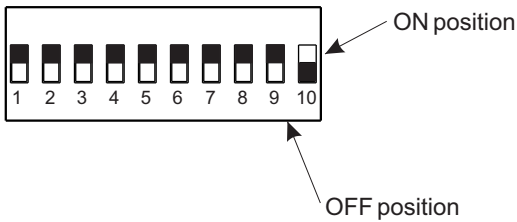
The PX385 is a device powered directly from power grid 230V, what may result in electric shock in case of not following safety rules. During its installation and use the following rules must be strictly observed:

1. Installation of the device should be carried out by a person with appropriate qualifications in accordance with this document.
2. The electrical outlet to which the switch is connected have to be linked to a working protective installation (3-wire installation.)
3. Protect the power cord from mechanical and thermal damage.
4. In case of damage the power cord, cable, replace it with the same technical data and certificates.
5. For connecting devices to the 1 Relay Module use only 3-wire cables with cross-section of not less than 1.5 mm.
6. Connection of DMX signal can only be made with shielded conductor.
7. All repairs and connections of outputs or DMX signal can only be made with cut off power supply.
8. PX385 should be strictly protected against contact with water and other liquids.
9. All sudden shocks, particularly dropping, should be avoided.
10. The device cannot be turned on in places with humidity exceeding 90%.
11. The device cannot be used in places with temperature lower than 2°C or higher than 40°C.
12. Clean it with damp duster only.

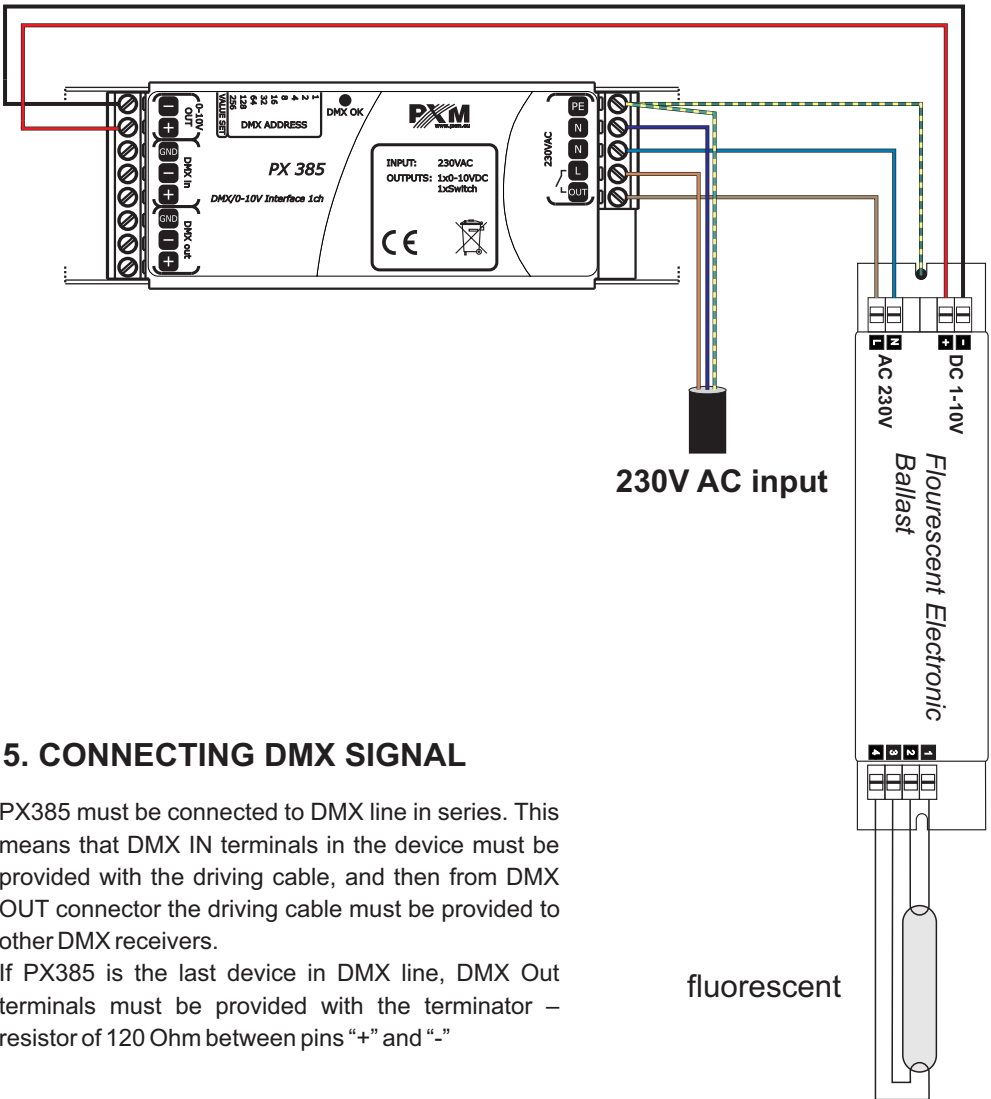
3. DESCRIPTION OF THE DEVICE



DIP switch - principle of operation:



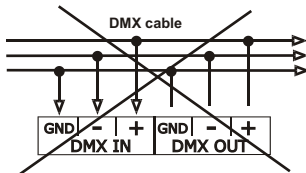
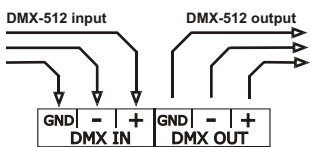
4. WIRING DIAGRAM



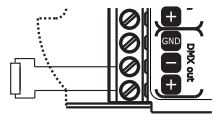
5. CONNECTING DMX SIGNAL

PX385 must be connected to DMX line in series. This means that DMX IN terminals in the device must be provided with the driving cable, and then from DMX OUT connector the driving cable must be provided to other DMX receivers.

If PX385 is the last device in DMX line, DMX Out terminals must be provided with the terminator – resistor of 120 Ohm between pins “+” and “-”



120 Ohm



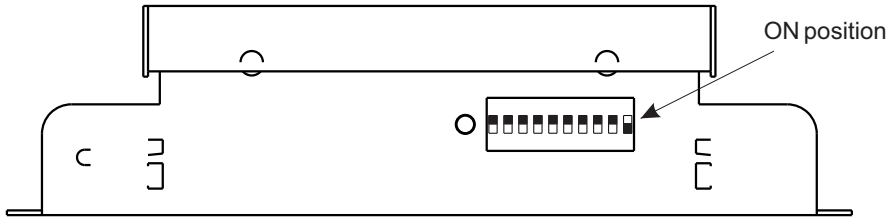
6. DEVICE CONFIGURATION

Configuration of the device can be made as follows:

- directly using a DIP switch;
- using the PX277 configurator;
- using the RDM protocol.

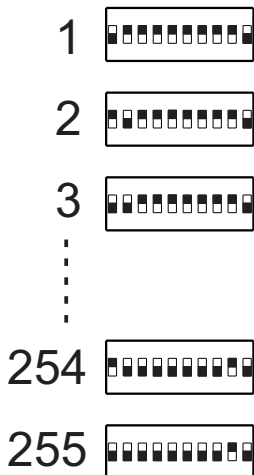
7. CONFIGURATION USING A DIP SWITCH

1. Move the tenth DIP switch up (ON position) to enter the operation mode setup and no signal.



2. Using switches from one to eight set the brightness values for the operation of the driver in the "no signal mode", i.e. when DMX signal is not received.

Brightness value is set in a binary code between 0 - 255.



3. Set the ninth DIP switch to OFF when you want the driver to work in the 0-10 mode or ON for the 1-10 mode (Relay).
4. Save your settings by switching the tenth DIP switch to OFF which will take you to the addressing mode.
5. Set the DMX address using switches from one to nine.

8. CONFIGURATION USING A CONFIGURATOR

Converter settings can be changed by plugging in the PX277 PxArt Settings Controller configurator.

When connecting the cable to PX385, the device restarts.

The main menu of the configurator allows for viewing PX385 parameters and changing the following options: brightness address, scene brightness, output mode, and restoration of default parameters.

Moreover, it is possible to check the lighting time (control time) and working time (triggered voltage).

PxArt Settings Controller also allows for checking the software version number, serial number and device model.

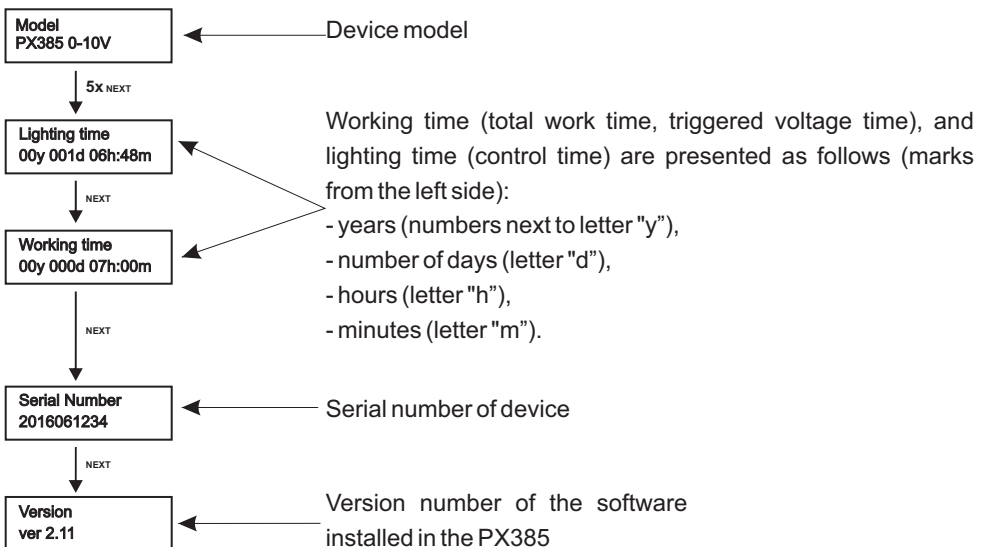
Navigating through the menu is possible with programmer buttons located below the display. The "escape" button allows an exit to the upper level in the device menu; "next" and "previous" buttons make it possible to go forward and backward (alternatively value decreasing or increasing).

However, the "enter" button allows you to enter the edition of the selected menu.

WARNING: To set the DMX address from the level of RDM or programmer set all the DIP switches to OFF.

8.1. Description of information parameters

PX277 controller allows you to read important information concerning the lamp to which it has been connected.

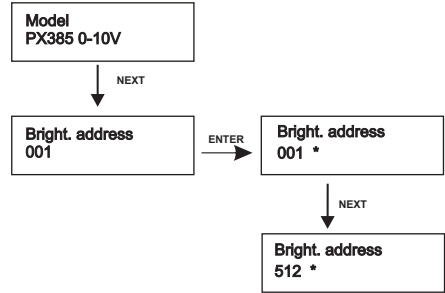


8.2 Description of programmable parameters

8.2.1 Brightness address

PX277 allows for changing the DMX address which controls the output of the converter. DMX channel can be set between 1 to 512.

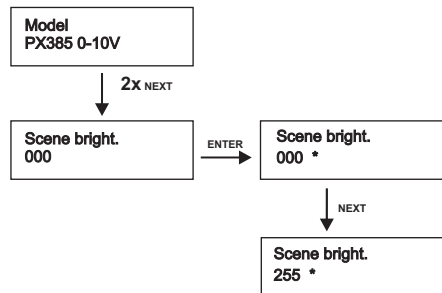
To change the DMX channel (responsible for the DMX control), select the **[Brightness address]** in the PX277 menu, confirm the selection by pressing "enter", and then use the "previous" and "next" buttons to set the appropriate value. After changing the DMX channel you must confirm the operation by pressing "enter" or "escape".



8.2.2 Scene brightness

The device can work without DMX control. In such case, the PxArt Settings Controller enables changing the value of the scene brightness. This value can be set in the range from 0 up to 255.

[Scene bright.] set to value 0 turns off the stage and turns the value 255 to 100%. Value 128 means the stage brightness is 50%. After changing the value of the stage brightness, the operation has to be confirmed by pressing "enter".



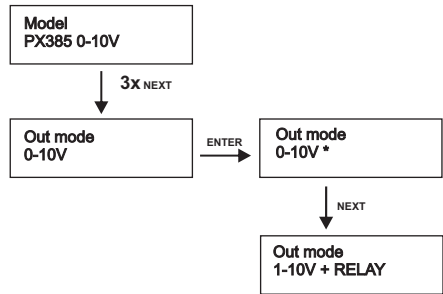
8.2.3 Output modes

The PX385 device can operate in two output modes:

- 0 - 10V,
- 1 - 10V - Relay mode.

Using the PX277 configurator enter the submenu **[Out mode]** and using the "next" and "previous" buttons select the output mode according to the wiring diagram below.

After changing the mode confirm the operation by pressing "enter" or "escape".



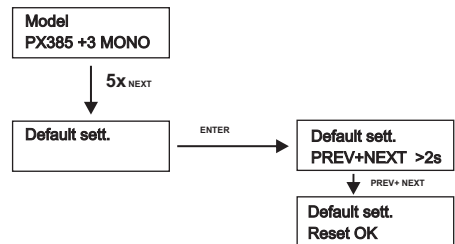
8.2.4 Restoring default settings

The device comes with the option to restore default settings.

To use this option, select the **[Default sett.]** menu and press "enter".

A window informing about the need to press "previous" and "next" buttons will appear for 2 seconds simultaneously. Next, the device will display **[Reset OK]**. The acceptance of this message by using "enter" restores default settings.

There is also a possibility to exit the level of this menu without returning to default settings. In such case, the "escape" button will be selected.



PX385 default setting:

- Brightness address 001
- Scene brightness 128
- Output mode 0 - 10V

9. RDM DESCRIPTION OF AVAILABLE PARAMETERS

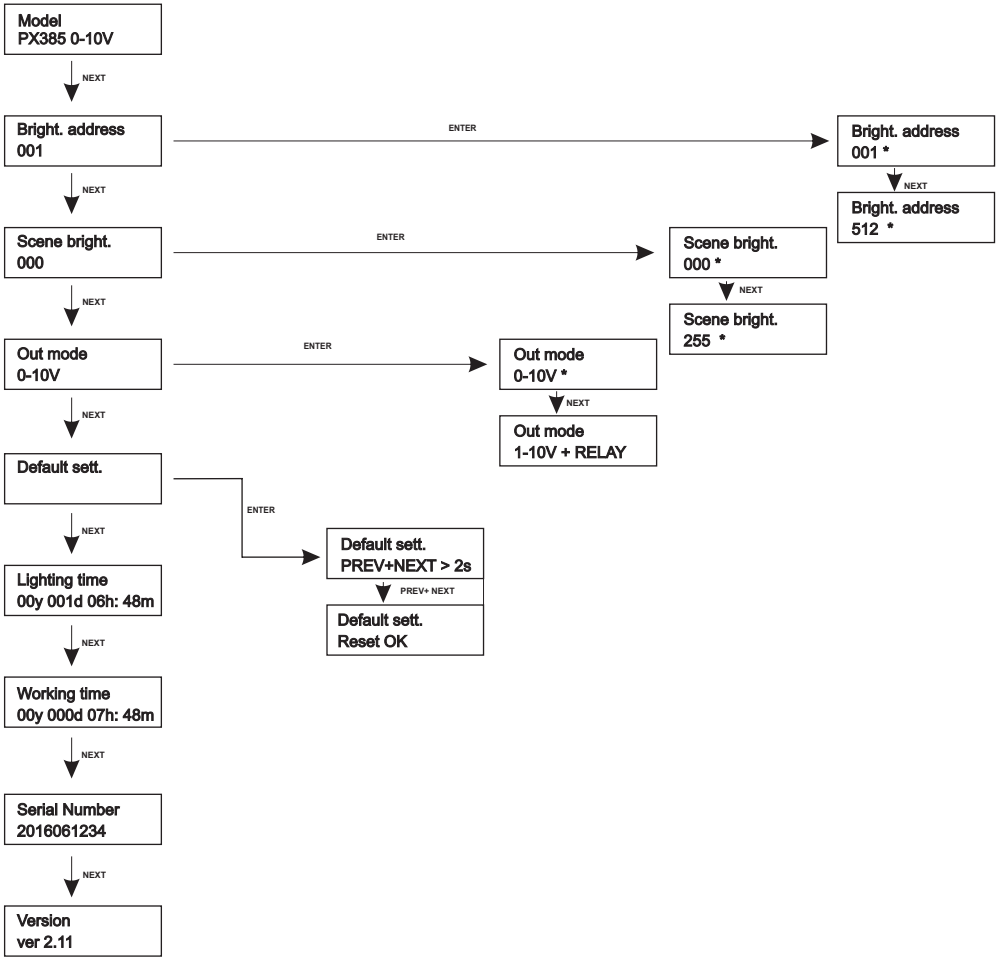
PX385 supports the DMX-RDM protocol. DMX protocol in its assumption enables one-way data flow while its extension, the RDM protocol, can transmit information in two ways. This makes the simultaneous receiving and sending of information possible and allows for monitoring the operation of devices compatible with the RDM protocol as well as possibly changing the configuration of their parameters.

Below there is a list of RDM parameters supported by PX385:

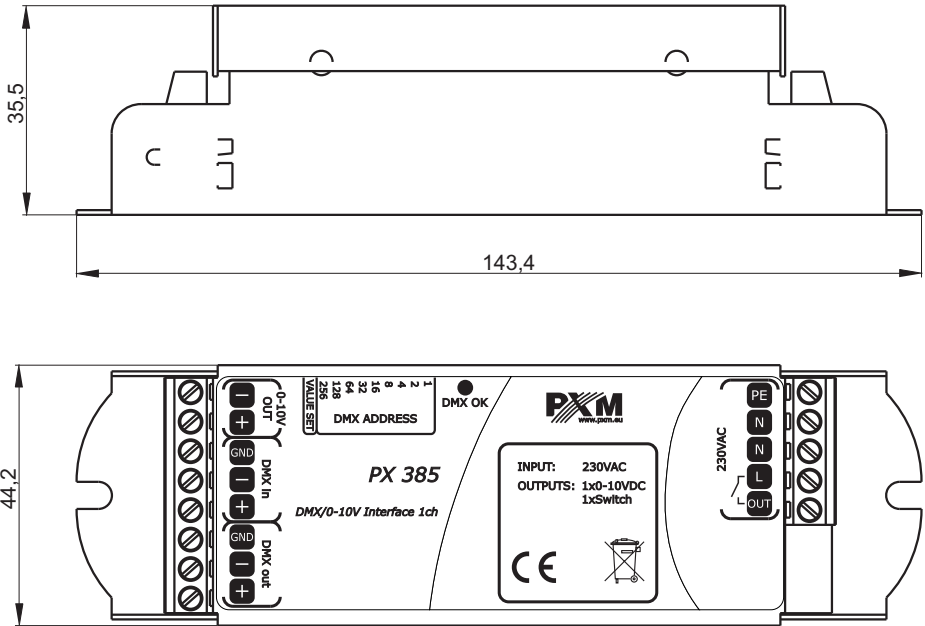
Parameter name	PiD	Description
SUPPORTED_PARAMETERS	0x0050	all supported parameters
PARAMETER_DESCRIPTION	0x0051	description of additional parameters
DEVICE_INFO	0x0060	information concerning the device
SOFTWARE_VERSION_LABEL	0x00C0	firmware version of the device
DMX_START_ADDRESS *	0x00F0	DMX starting address of the device, minimum value: 1, maximum value: 512. According to the RDM standard, for device whose footprint is 0, the value of this parameter may be 65535 and then it is not possible to change the initial address settings for the entire device, but only for sub-devices.
IDENTIFY_DEVICE *	0x1000	device identification, Two states are possible: identification is off (0x00 value) and identification is on (0x01 value).
DEVICE_MODEL_DESCRIPTION	0x0080	device description, e.g. name
MANUFACTURER_LABEL	0x0081	manufacturer description, e.g. name
DEVICE_LABEL *	0x0082	additional device description, It is possible to enter an additional device description using up to 32 ASCII characters.
FACTORY_DEFAULTS	0x0090	device default settings
DMX_PERSONALITY	0x00E0	DMX operational mode
DMX_PERSONALITY_DESCRIPTION	0x00E1	description of individual operational modes
DEVICE_HOURS	0x0400	information concerning the working time of the device counted in hours
LAMP_HOURS	0x0401	information concerning lamp lighting time
SCENE_BRIGHTNESS *	0x8022	brightness settings, Minimum value: 0, maximum value: 255. Default value is 128.

* - parameter editable

10. PROGRAMMING



11. DIMENSIONS



12. TECHNICAL DATA

- | | |
|-------------------------------|--------------------|
| - power supply: | 230V AC |
| - number of output channels: | 1 |
| - 0-10V output load capacity: | max. 10 mA |
| - relay output load capacity: | |
| resistive load | max. 2A, 250V AC |
| inductive load | max. 0.5A, 250V AC |
| - output sockets: | screw terminals |
| - weight: | 0,18 kg |
| - dimensions: | |
| - width: | 44,2 mm |
| - height: | 35,5 mm |
| - length: | 143,4 mm |





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DECLARATION OF CONFORMITY

according to guide lines 2004/108/WE and 2006/95/WE

Name of producer: PXM Marek Żupnik sp. k.

Address of producer: ul. Przemysłowa 12
30-701 Kraków

declares that the product:

Name of product: **DMX/0-10 Interface 1CH**

Type: **Px385**

answers the following product specifications:

LVD: PN-EN 60065:2004

**EMC: PN-EN 61000-4-2:2011
PN-EN 61000-6-1:2008
PN-EN 61000-6-3:2008**

Additional informations:

1. The PE terminal of the converter must be connected to an efficient protection system that is equipped with a residual-current device.
2. DMX signal has to be connected by using a shielded cable, connected to the GND pin.



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Kraków, 10.06.2015

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