PX809

Uni-Flood

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

The PX809 lamp has been designed to illuminate stages and for use in TV studios. Uni-Flood has a built-in system for tuning the frequency of the control signal ("*flicker free*" technology), which prevents the flickering effect in TV cameras.

It is controlled by the DMX signal. The brightness of the lamp can be set in the range of 0.001 – 100%, and the color temperature in the range of 2700 – 6500K. The lamp can be programmed using the screen, two buttons and a knob. In addition, PX809 has an implemented RDM protocol that allows you to send information in two directions.

When the DMX signal disappears, the user can freely control the brightness and color temperature of the lamp using the knob and buttons – selecting which parameter is currently to be edited.

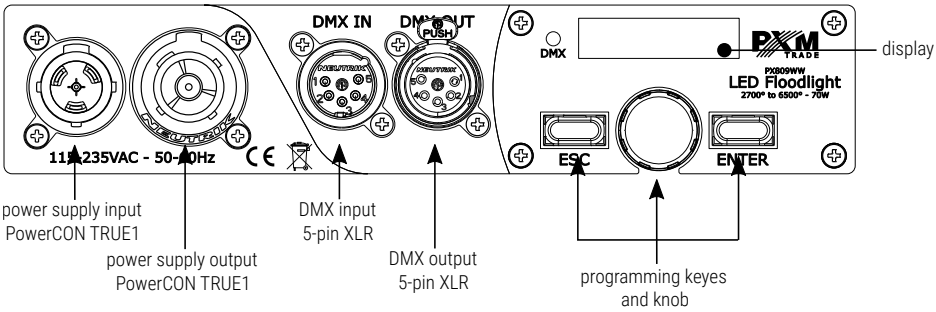
The lamp has a durable aluminum housing and is equipped with two apertures for framing.

2 Safety conditions

The PX809 is a device powered directly from power grid 100 – 240V AC, 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 splitter is connected have to be linked to a working protective installation (3-wire installation).
3. All the conductors should be protected against mechanical and thermal damage.
4. In the event of damaging any conductor, it should be replaced with a conductor of the same technical data.
5. Connection of DMX signal can only be made with shielded conductor.
6. All repairs and connections of outputs can only be made with cut off power supply.
7. The PX809 should be strictly protected against contact with water and other liquids.
8. All sudden shocks, particularly dropping, should be avoided.
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 Control elements



4 Navigating the menu

Esc - allows to exit the parameter being programmed without saving any changes or to move to higher menu level

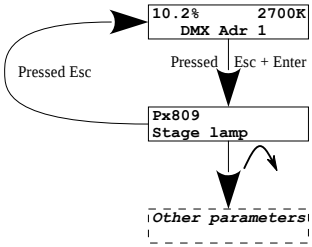
(next) - scrolls the menu down or increases the values to be set

(prev) - scrolls the menu up or reduces the values to be set

Enter - allows to enter the programming mode and confirm the values set

5 Programming the device

The device has two modes for changing parameters. Basic (in the absence of DMX signal – the so-called *No Signal*), allowing to change the brightness and color temperature of the light using the buttons (parameter selection) and knob (value change), and the advanced one, used to change other operating parameters such as: DMX address, smoothing, etc.



To change from the basic to the advanced mode of changing parameters, press and hold the *Esc* and *Enter* buttons until the device number and name are displayed on the screen. The transitions between the individual parameters are made using the knob.

Return to the basic mode is possible only from the level of the window in which the device number and name are displayed. Press and hold the *Esc* button until the window with the basic device control mode is displayed.

5.1 Basic device control mode

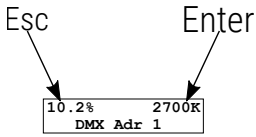
Basic mode that is responsible for the scene in the absence of DMX signal (so-called *No Signal*). First, the device is controlled by the DMX signal. In case of its disappearance or absence, the device is controlled by buttons and knob – if the DMX signal is available, the editing option is blocked, the displayed values are the values of the DMX signal.

The selected parameter to be edited blinks, buttons to select the one to be edited:

Esc – brightness parameter (0 – 100%)

Enter – light color temperature parameter (2700 – 6500K)

Knob – change of value



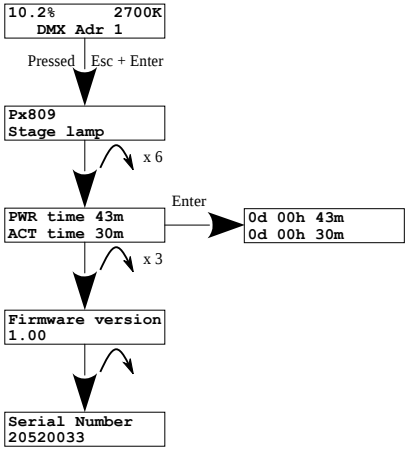
NOTE! Control with the knob and buttons is possible only in the absence of a DMX signal (so-called *No Signal*). When the device receives a signal, editing is disabled.

NOTE! It is recommended to set the value of brightness and color temperature before connecting the DMX signal. At the moment of the control signal loss, the device will work according to the recently defined values.

5.2 Advanced parameter change mode

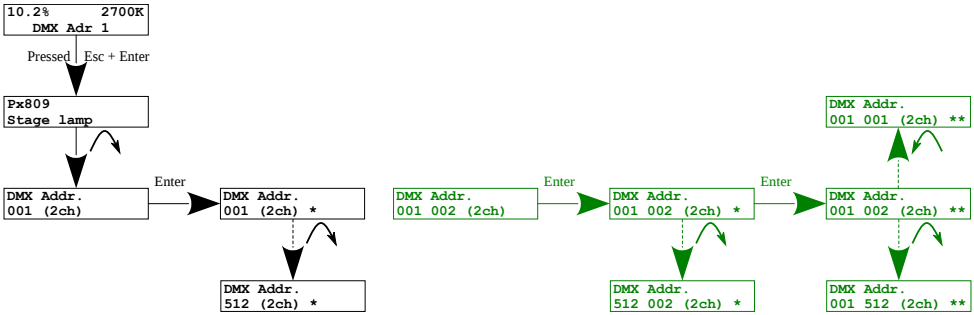
5.2.1 Description of information parameters

Information parameters displayed on the device screen may be: current brightness, color temperature and DMX address, model, device operation time (***PWR*** – total operation time, ***ACT*** – active operation time), version of the software installed in PX809 and serial number.



5.2.2 DMX address

In PX809 it is possible to change the address of both channels at the same time (***2ch DW Basic*** operating mode) or separately for the channel controlling the brightness and color temperature of light (***2ch DW Adv.*** operating mode). More information on the operating mode can be found in section 5.2.4 Operating mode.

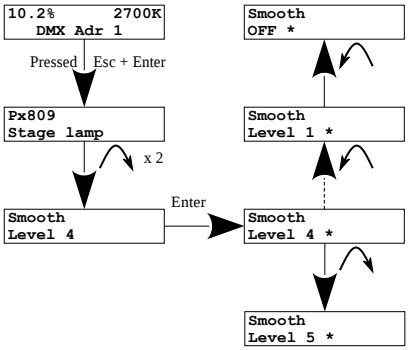


NOTE! The green color shows the DMX address setting in the ***2ch DW Adv*** mode.

5.2.3 Smooth

The device also has a smoothing capability. Smoothing allows for smooth changes in brightness and color temperature, without visible jerks, which prevents light vibration effects in lighting installations. By default, this option is enabled at level 4 – ***Level 4***, to change the smoothing level or turn it off completely select the ***Smooth*** option. The following options are available:

- OFF – smoothing off,,
- Level 1 – 5 – smoothing level adjustable from 1 to 5 (1 – fast, 5 – very smooth).



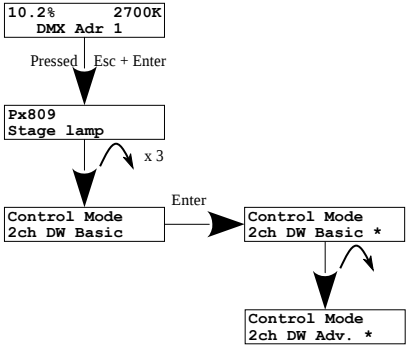
5.2.4 Operating mode

The selection of the operating mode is nothing more than deciding whether the DMX address is to be set "in groups" or separately for each channel. Variants available:

- ***2ch DW Basic –*** in ***DMX Addr.*** one DMX address is set and the 2nd is set automatically as next,
- ***2ch DW Adv –*** in ***DMX Addr.*** DMX addresses for color temperature and brightness are set separately.

Channel 1 – color temperature

Channel 2 – brightness



5.2.5 Temperature limit

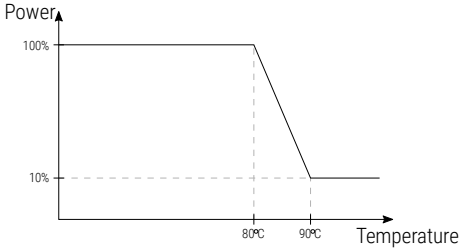
The module is factory fitted with a temperature sensor, in addition it is possible to connect an external NTC 4K7 thermistor.

After exceeding +80°C the module will start to limit the output power. After exceeding +90°C it will start operating with a maximum power of 10%.

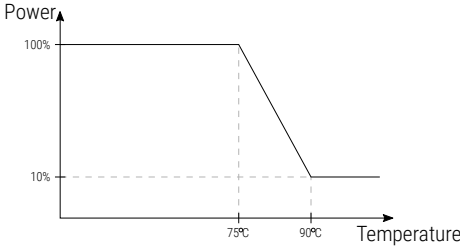
The external sensor works very similarly to the sensor in the driver, but the power reduction is already at +75°C and is also linear to 10% at +90°C.

Any sensor error (no NTC, shorted) reduces the driver's power to 60%.

Operation characteristics of the sensor embedded in the driver

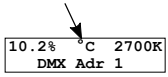


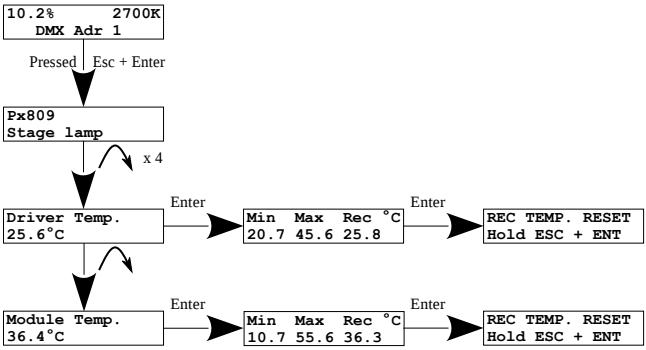
Operating characteristics of the external NTC 4K7 sensor



NOTE! After exceeding the upper temperature limit, the driver is not completely turned off, but the power is limited to 10%.

In the device menu, it is possible to read the temperature in the PX809 and on the external sensor. Additionally, if the external sensor is not connected, the temperature has been exceeded or is short-circuited, an error is displayed – the temperature symbol ***°C*** flashes on the main screen.





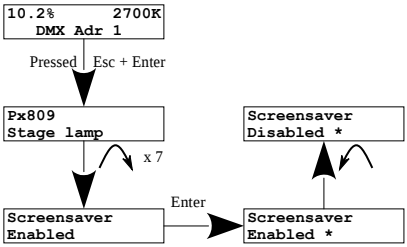
Possible NTC external sensor messages:

- ***38.4°C –*** temperature read from the sensor,
- ***Shrt*** – thermistor shorted,
- ***MISS*** – no sensor connected.

The temperature, described as ***Rec***, is the maximum recorded temperature that the user can restart (***Min*** and ***Max*** cannot be reset by the user).

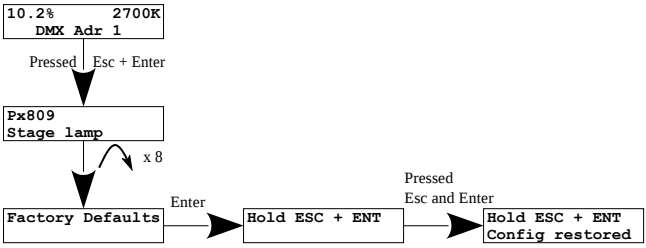
5.2.6 Screen saving

The device has been equipped with the ability to turn off the screen backlight and diode. This is possible with the ***Screensaver*** option. Thanks to its use, the display and DMX diode are turned off after ~20 seconds (from the moment of not pressing the buttons / using the knob). The device continues to work without interfering with other parameters. To restore the backlight, use the knob or any key.



5.2.7 Restore default settings

The module has the ability to restore default settings. To use this option, select the ***Factory Defaults*** menu and then press the *Enter* key. A window appears prompting you to press the *Esc* and *Enter* keys simultaneously for about 2 seconds.



PX809 default settings:

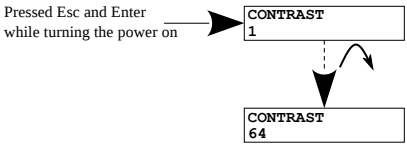
- *No Signal*: 25% / 2700K (basic control mode)
- *DMX Addr.*: 001
- *Smooth*: Level 4
- *Control Mode*: 2ch DW Basic
- *Screensaver*: Enabled

5.2.8 Setting the display contrast

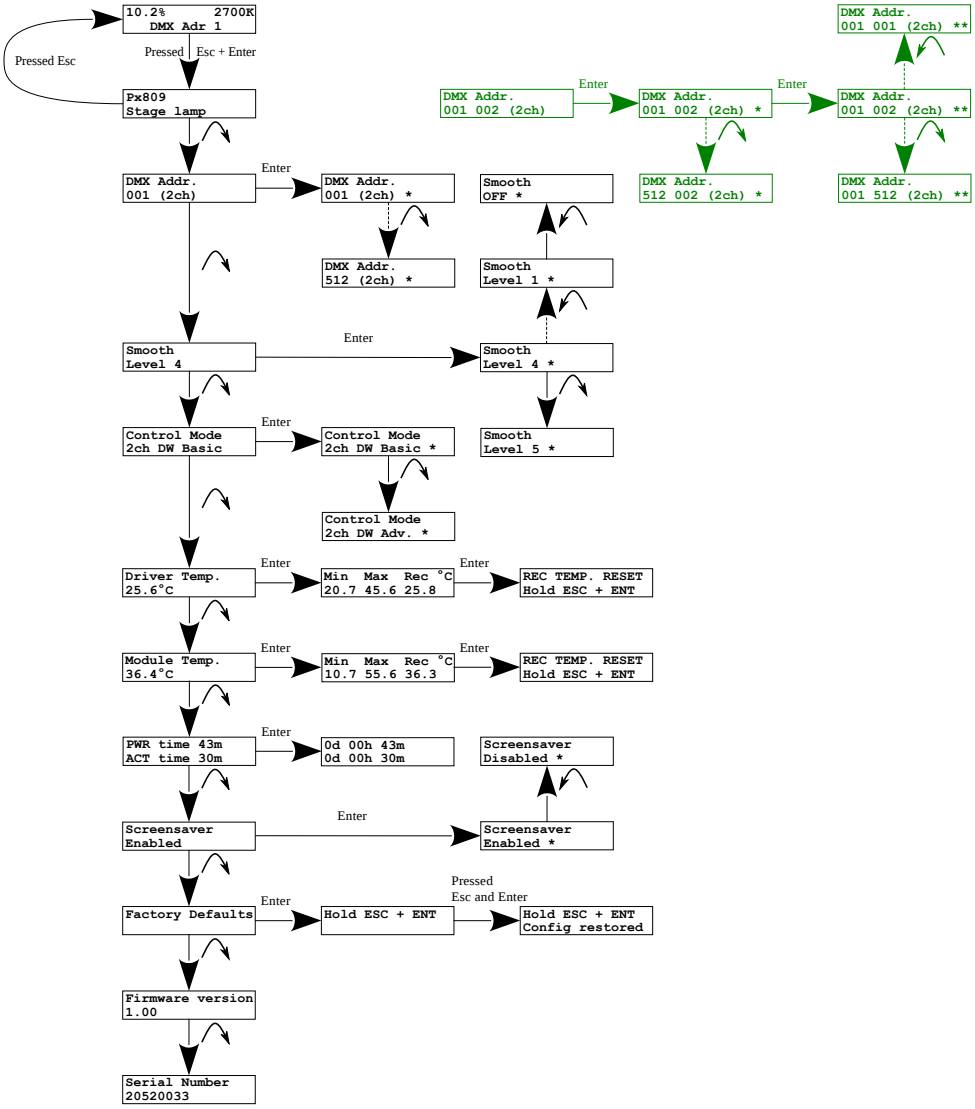
If the device has a problem with the readability of messages displayed on the screen, it is possible to change its settings. To do this, press and hold the *Esc* and *Enter* keys while turning the power on. The contrast can be set between 1 and 64. If the screen is unreadable and only the "▒" characters are visible or the screen is completely white, then after pressing the *Esc* and *Enter* keys while turning the power, the device will signal its presence in the ***Contrast*** menu by blinking the *Power* indicator diode in yellow.

By turning the knob ↷ / ↶, find the appropriate value, in which the screen becomes legible.

To exit the ***CONTRAST*** menu, press the *Enter* button.



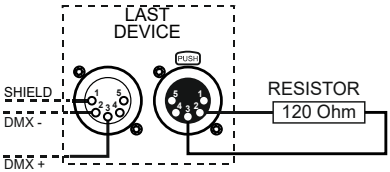
5.2.9 Menu scheme in PX809



NOTE! The green color shows the DMX address setting in the *2ch DW Adv* mode.

6 DMX signal connection

1. The recommended cable for the connection is RS485 (two wires in a shield).
2. Devices must always be connected in series.
3. To split the DMX line, use the Splitter DMX (e.g. PX716).
4. For more devices (over 32) or long distances (more than 300 meters) use DMX Repeater (e.g. PX097). It is recommended not to reach the maximum length and number of devices on the DMX line.
5. It is necessary to install a terminator, i.e. 120 Ohm resistor, in the last device.



NOTE! The LED lights yellow when DMX signal is received.

7 RDM – available parameters

The PX809 supports the DMX-RDM protocol. DMX protocol allows only of a one-way data transmission, while extension the RDM protocol can transmit information in two directions. This makes possibility of monitoring activities of the compatible devices. Thanks to RDM some available settings of compatible devices may be programmed using this protocol.

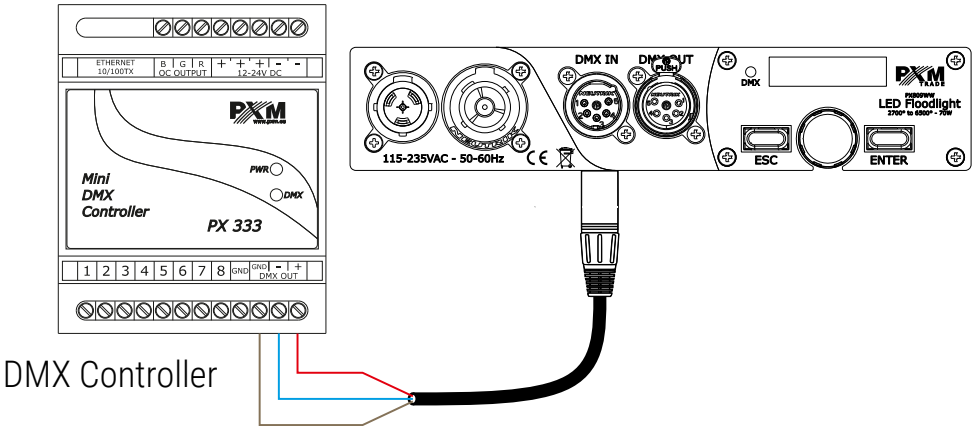
List of RDM parameters supported by the PX809:

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_ADDRESS *	0x00F0	DMX starting address of the device
IDENTIFY *	0x1000	device identification; Two states are possible: identification is off (0x00 value) and identification is on (0x01 value)
DEV_MODEL_ DESC	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
PERSONALITY *	0x00E0	DMX operational mode
PERSONALITY_ DESCRIPTION	0x00E1	description of individual operational modes
FACTORY_DEFAULTS	0x0090	device default settings
SCREENSAVER_ON/OFF *	0x8022	screen saver setting
SENSOR_DEFINITION	0x0200	information on the selected temperature sensor
SENSOR_VALUE	0x0201	information about sensors
SMOOTH_OFF/1/2/3/4/5 *	0x801A	selection of smoothing options

Parameter name	PiD	Description
NOS_SCENE_1 *	0x8021	setting channel 1 in the scene (color)
NOS_SCENE_2 *	0x8022	setting channel 2 in the scene (brightness)
SERIAL_NUMBER	0x8030	device serial number

* - editable parameter

8 Connection scheme



DMX Controller

9 Technical data

type	PX809
power supply	100 – 240V AC
DMX channels	512
RDM support	yes
brightness adjustment range	0.001 – 100%
lamp brightness	2700K – 7179lm 50/50 – 7752lm 6500K – 7422lm
color control range (DW)	2700 – 6500K
control	screen + buttons + knob / DMX / RDM
power consumption	max. 85W
connectors	DMX IN Neutrik 5-pin socket (male) DMX OUT Neutrik 5-pin socket (female) Neutrik PowerCON TRUE1 power socket
housing	aluminum
weight	4.1kg
dimensions	width: 300mm height: 220mm depth: 225mm

Podłęże, 11.03.2025

DECLARATION OF CONFORMITY

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

we declare that our product:

Product name: Uni-Flood

Product code: PX809

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

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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