

PX801-T

PxArt+ 06 Mono Track

PxArt+ 12 Mono Track

PxArt+ 18 Mono Track

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

PX801-T is a professional LED illuminator designed for illumination of museum exhibitions or displays. Thanks to the application of the most modern semiconductor SSL LED light sources and advanced control electronics, a high class illuminator was created which meets very high requirements for museum and exhibition lighting. Its most important advantages include a complete lack of ultraviolet radiation emission, trace amounts of infrared radiation, a very high factor of CRI color capturing, large brightness and small energy consumption. Modern electronics allowed to create a lamp that is devoid of the effect of "light vibration" (flicker free technology) in the full control range, which makes it useful in the television industry.

The device features a base which allows for mounting it in GLOBAL Trac® Pulse Control bus bars, provided with an additional control line.

Individual address allocated to each lamp allow for independent adjustment of its brightness, regardless of the settings of other lamps. Through push button located on the lamp casing it is possible to operate it manually (e.g. in case of connecting the lamp to bus bars without a control line).

Highly-effective LEDs made by Osram Oslon® are used in the lamp with an efficient control system, through which the lamp emits small amounts heat.

The lamp casing renders it possible to change the direction of its beacon in two axes.

2 Safety conditions

Caution! Before installing, connecting and using the lamp you have to absolutely read this document.

The following symbols are used to underline important information on security on the product and in this manual.



Danger!
Risk of loss of life
and health



Warning!
Fire hazard



Warning!
LED light emission,
the risk of eye
damage



Warning!
The risk of burns



Warning!
Read the instruction
manual

Caution!

Do not look at the LEDs, LEDs can cause damage or eye irritation. Do not look at the light source with any optical devices that focus the light rays.



Light is harmful to unprotected eyes, can cause irritation, eye damage or even loss of eyesight.



While working outdoors in normal conditions, the housing unit can heat up to +65°C. Make sure that accidental contact with the device during use is impossible.

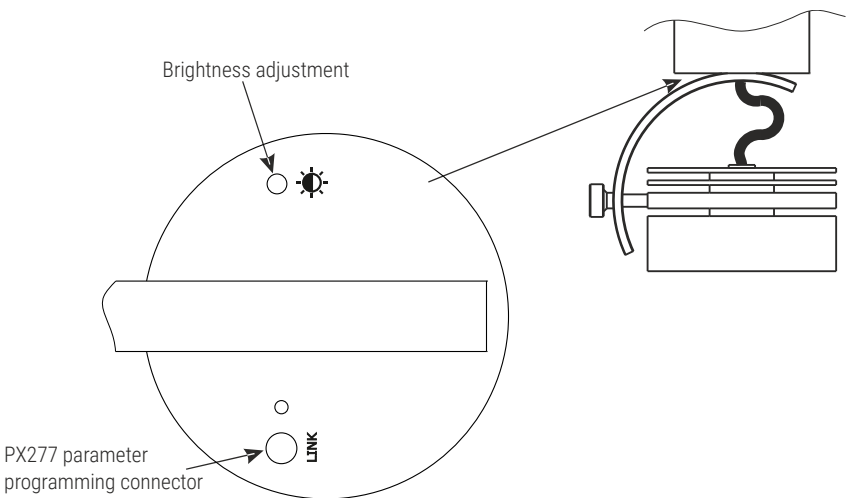


In case of improper usage of the product it may cause a risk of serious injury or death because of the threat of fire.

The PX801-T device is powered directly from 230V power grid. Failure to comply with the safety rules may result in electric shock and may endanger the user's life. Therefore it is necessary to observe the following:

1. Installation should be performed by a person holding the appropriate qualifications, according to the instruction manual.
2. The electrical installation to which the lamp is to be connected must meet the safety requirements (the installation must be 3-wire and equipped with a residual current device).
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. All repairs, should be made with cut off power supply.
6. Do not connect to the power supply to device with visible damage.
7. All sudden shocks, particularly dropping, should be avoided.
8. The device cannot be used in places with temperature lower than +2°C or higher than +40°C.
9. Clear with damp cloth only.

3 Connectors and control elements



4 Information on version

Below is a description of the PX801-T model designations with their explanation

PX801-T – AA – XX – YYY – Z

| <u>AA – version:</u> | <u>XX – beam angle:</u> | <u>YYY – CRI and color temperature:</u> | <u>Z – housing colors:</u> |
|----------------------|-------------------------|---|----------------------------|
| 06 – 6 LEDs | 10 – 10° | 927 – CRI 90, temp. 2700K | 1 – gray |
| 12 – 12 LEDs | 20 – 20° | 930 – CRI 90, temp. 3000K | 2 – black |
| 18 – 18 LEDs | 30 – 30° | 940 – CRI 90, temp. 4000K | 3 – white |
| | 40 – 40° | 950 – CRI 90, temp. 5000K | |
| | EL* – elliptical lenses | 965 – CRI 90, temp. 6500K | |
| | WW** – Wall Washer | | |

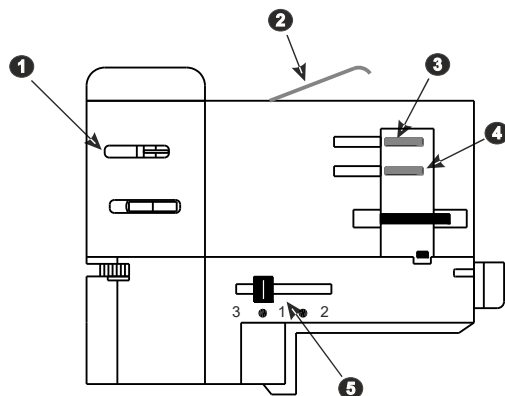
* - not available for the PX801-T-06 lamp

** - not available for the PX801-T-06 lamp and PX801-T-12

5 DMX connection

PX801-T is a device attached to the GLOBAL Trac® Pulse Control rail by using the GAC 600 adapter included in the kit.

5.1 GLOBAL Trac® GAC 600 adapter



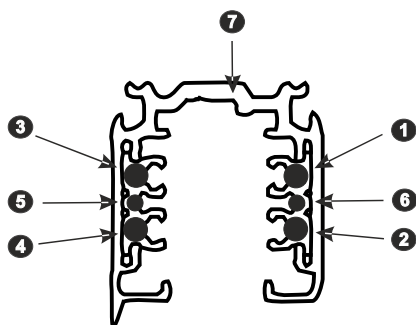
DMX contacts

- 1 DMX - (on the opposite side DMX +)

MAINS POWER SUPPLY

- 2 protective (⏏)
- 3 phase 1 (on the opposite side phase 2)
- 4 neutral (on the opposite side phase 3)
- 5 phase selection switch

5.2 The cross-section of the DMX GLOBAL Trac® Pulse Control



POWER SUPPLY

- 1 phase 2
- 2 phase 3
- 3 phase 1
- 4 neutral

DMX

- 5 DMX -
- 6 DMX +
- 7 mass (GND)

6 Control

6.1 Button

The lamp has been equipped with button which allow for changing the brightness level. The button have been placed at the bottom part of the junction box, above the lamp reflector.

Depending on a situation, the diode signals the following:

- start of the lamp – quick flickering of the diode for 2 seconds
- DMX signal receiving – lighting of the brightness adjustment button in the first minute after receiving the DMX signal
- after the start of the lamp in case of the loss of DMX signal – diode not lights
- if the state of DMX signal changed (if there wan no DMX signal and it returned, or vice versa) – diode signals it for 1 minute
- damage of the temperature sensor module – diode does not go out after 1 minute

To change the brightness, press and hold down the control button. If during the brightness adjustment the button diode starts flickering, it means that the extreme value (minimum or maximum) has been reached.

It is possible to change the adjustment direction without reaching extreme values. For example, while the lamp brightness is increased, release the control button for a moment. The diode will signal the change of

adjustment direction. The pressing of the adjustment button again will cause the dimming of the lamp (brightness decrease).

While the lamp operates, the diode stays switched off (excluding situations mentioned above).

6.2 DMX signal

The PX801-T lamp can be controlled via DMX channels:

- Channel 1 – brightness

Setting the lamp parameters:

| | Value of the lamp parameter | Value of the DMX signal |
|-----------------------|-----------------------------|-------------------------|
| Brightness adjustment | 100% | 255 |
| | : | : |
| | 50% | 128 |
| | : | : |
| | 0% | 0 |

7 Cooperating with the PX277 configurator

Lamp settings can be changed by connecting the PX277 configurator (PxArt+ Settings Controller) to it. It allows in connection with PX801-T to define the following parameters: DMX addresses for brightness (in the range of 1 – 512) and device behavior in the absence of DMX signal (programmable scene).

When the lamp is connected to the configurator, the PX801-T will restart.

7.1 Available parameters

DMX Addr. – changing the DMX address of the brightness channel in the range 1 – 512,

No Signal – behavior of the device when the DMX signal disappears:

- **Scene** – setting the scene displayed when the DMX signal disappears,
- **On** – switching the lamp on at 100%,
- **Off** – complete shutdown of the lamp,
- **Hold** – maintaining the last value of DMX signal,

No Signal Time – device reaction time after the disappearance of the DMX signal (0.0 – 10s),

Smooth – smooth changes in DMX signal value (*OFF / Level 1 – 4*),

Control mode – operating mode selection:

- **1ch MONO**

Driver temp. – a list of the lowest, highest and current operating temperature of the power supply,

Module temp. – a list of the lowest, highest and current operating temperature of the module with LEDs,

PWR time / ACT time – total lamp operation time / total lamp lighting time,

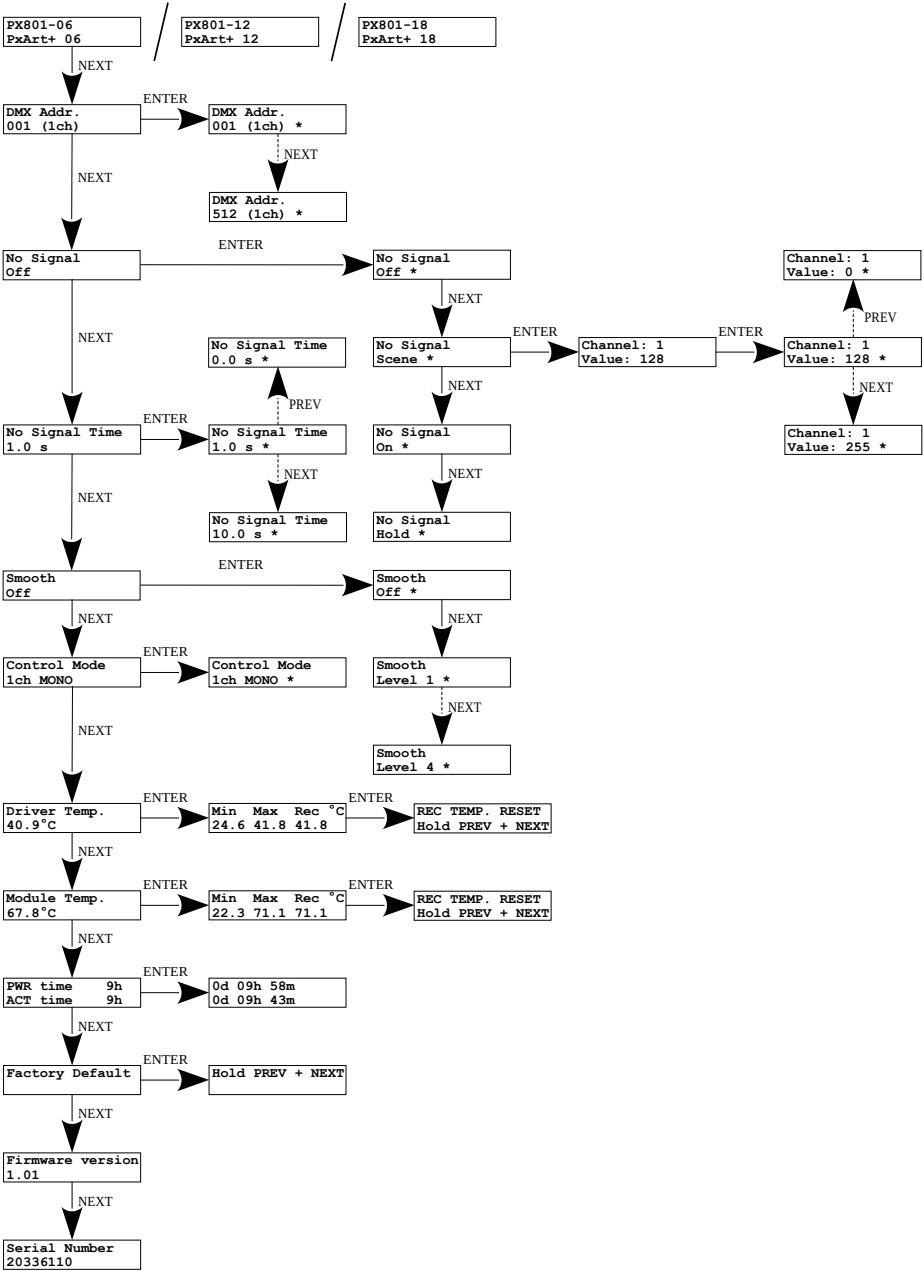
Factory Default – factory reset in PX801-T:

- **DMX Addr:** 001
- **No Signal:** Scene
 - **Scene:** 128
- **No Signal Time:** 1.0 s
- **Smooth:** Level 3
- **Control Mode:** 1ch MONO

Firmware version – software version,

Serial Number – serial number.

7.2 Scheme of the PX801-T menu in PX277



8 RDM – available parameters

The PX801-T 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.

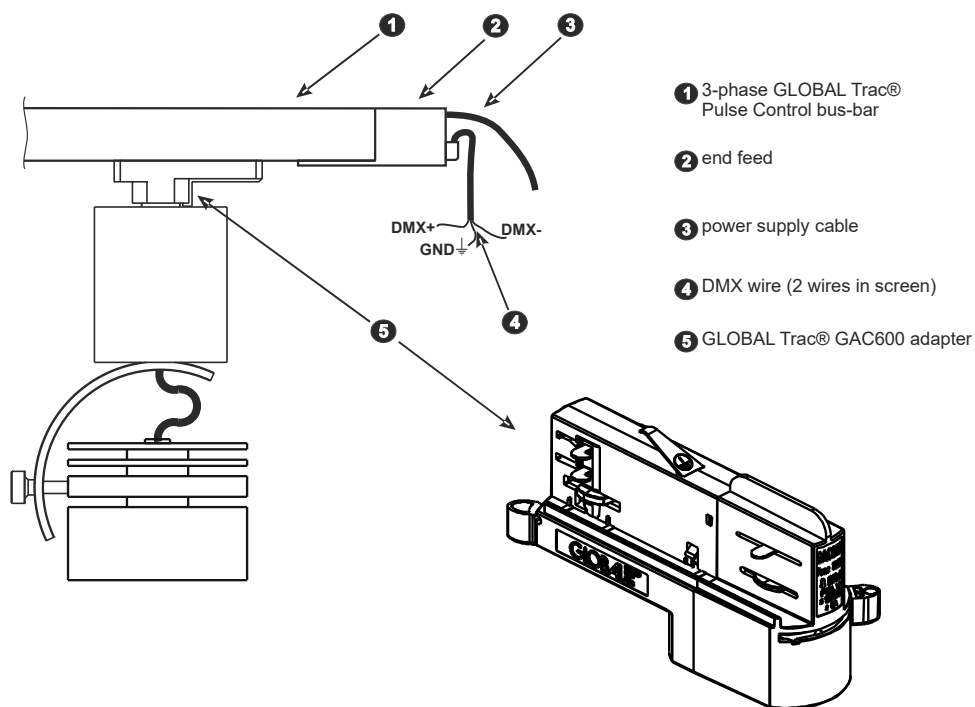
List of RDM parameters supported by the PX801-T:

| 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 |

| Parameter name | PiD | Description |
|--------------------------|--------|---|
| FACTORY_DEFAULTS | 0x0090 | device default settings |
| PERSONALITY * | 0x00E0 | DMX operational mode |
| PERSONALITY_DESCRIPTION | 0x00E1 | description of individual operational modes |
| SENSOR_DEFINITION | 0x0200 | information on the selected temperature sensor |
| SENSOR_VALUE | 0x0201 | information about sensors |
| SMOOTH_OFF/1/2/3/4 * | 0x801A | selection of smoothing options |
| NO_SIGNAL_OFF/ON/HLD/S * | 0x801C | behavior of the device when the DMX signal disappears |
| NOS_TIME * | 0x804D | device reaction time when DMX signal disappears (0 – 10s) |
| NOS_SCENE_1 * | 0x8021 | setting channel 1 in the scene |
| SERIAL_NUMBER | 0x8030 | device serial number |

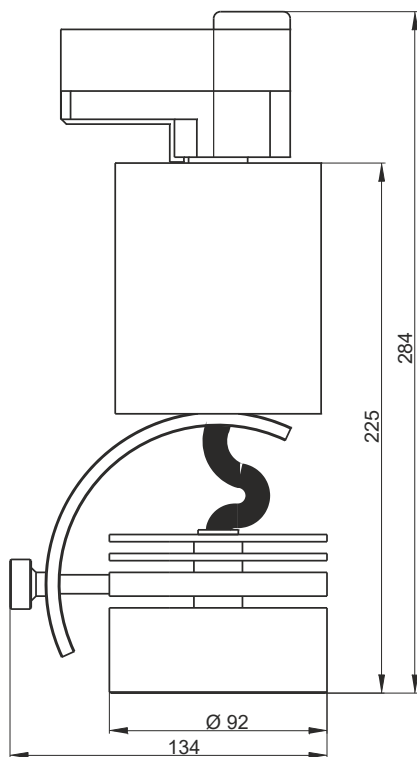
* - editable parameter

9 Connection scheme

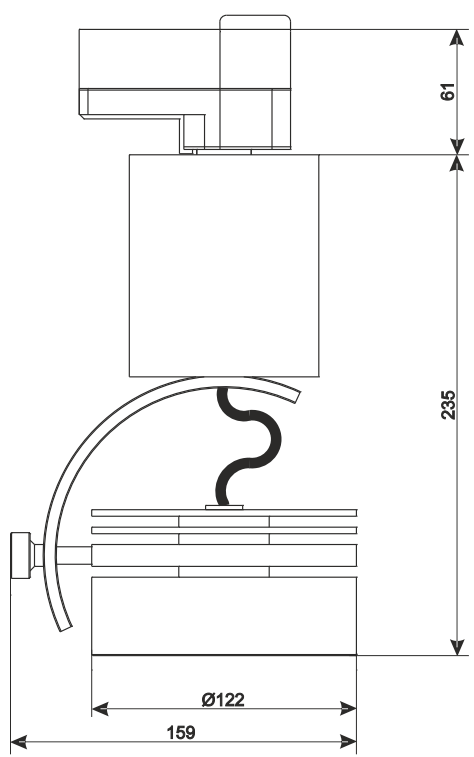


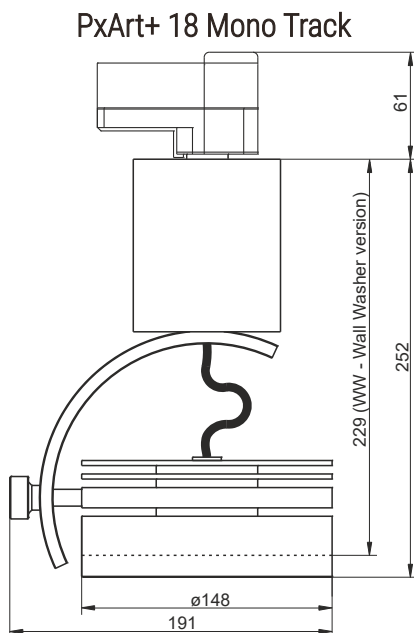
10 Dimensions

PxArt+ 06 Mono Track



PxArt+ 12 Mono Track





11 Technical data

| | |
|-------------------------------|---|
| type | PX801-T |
| power supply | 230V AC |
| number of diodes | 6 / 12 / 18 |
| power consumption | PX801-T-06: 10W PX801-T-12: 17,5W PX801-T-18: 25W |
| max. temperature rise housing | +30°C |
| LEDs lifespan | 50000h |
| beam angle | 10°, 20°, 30°, 40°, EL* (10 x 45°), WW** (50 x 110°) |
| color temperature | 2700K, 3000K, 4000K, 5000K, 6500K |

| | |
|--------------------------------|----------------------------|
| range of brightness adjustment | 0 – 100% |
| CRI index | min. 90 |
| control | DMX, RDM |
| programmable scenes | 1 |
| mounting | GLOBAL Trac® Pulse Control |
| available housing colors | gray, black, white |
| weight | PX801-T-06: 1.3kg |
| | PX801-T-12: 1.7kg |
| | PX801-T-18: 2.4kg |
| dimensions | height PX801-T-06: 225mm |
| | diameter PX801-T-06: 92mm |
| | height PX801-T-12: 235mm |
| | diameter PX801-T-12: 122mm |
| | height PX801-T-18: 252mm |
| | diameter PX801-T-18: 148mm |

* - not available for the PX801-T-06 lamp

** - for a lamp equipped with WW (Wall Washer) optics the look of the reflector differs slightly (dimensions also) – not available for the PX801-T-06 and PX801-T-12 lamp

DECLARATION OF CONFORMITY

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

we declare that our product:

Product name: PxArt+ 06/12/18 Mono Track

Product code: PX801-T

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

| | |
|-----------------------------|-----------------------|
| PN-EN 60598-1:2015-04 | EN 60598-1:2015 |
| PN-EN 62471:2010 | EN 62471:2008 |
| 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.

2014/35/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 the making available on the market of electrical equipment designed for use within certain voltage limits


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