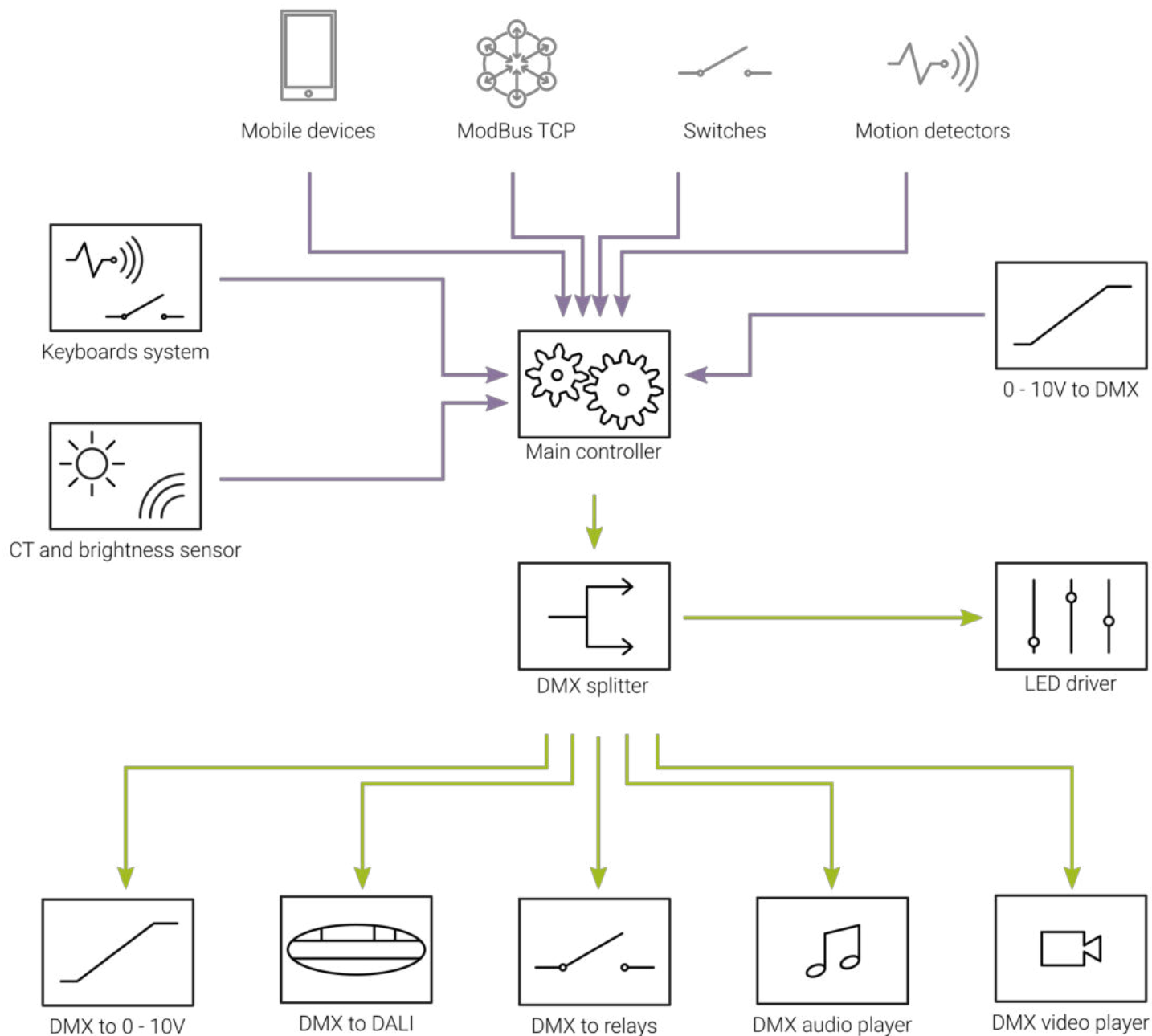




DMX modular system

System topology



DMX modular system

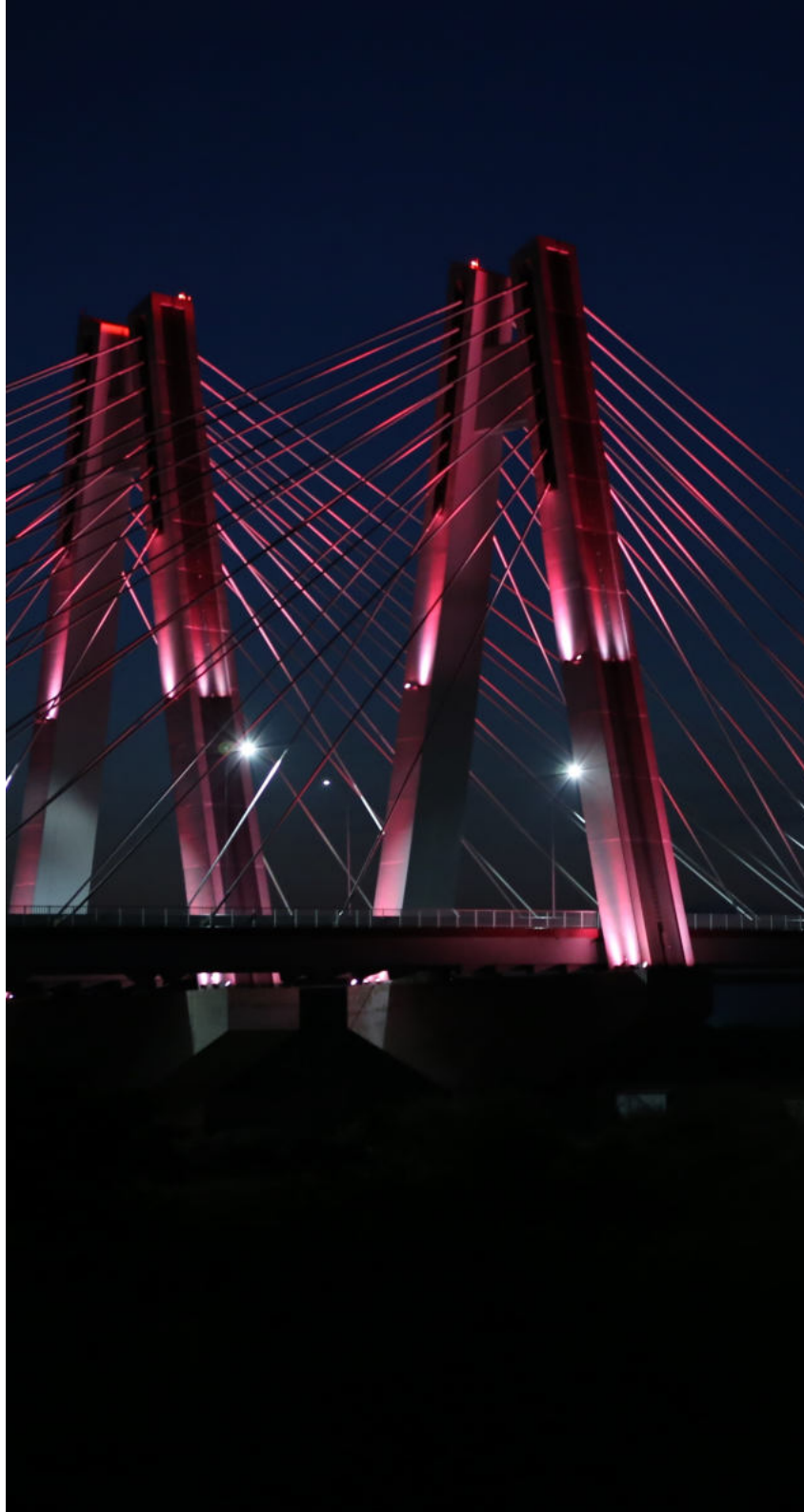
PXM Trade offers complete DMX control system. Most of the presented devices are designed to be installed in electrical switchboard.

The main controller is the heart of the system. It may be programmed to react on input signals from multiple sources (including mobile devices) or to operate according to a build-in clock. It is designed to be reliable and maintenance-free.

All the other devices are used to modify the DMX line or communicate with other systems. One group of devices are LED drivers that allow the control of LED lamps and modules with a DMX signal.

We also provide multimedia devices that may be controlled directly with a DMX signal.

Whole system enables the creation of flexible installations, adjusted to specific needs.



DMX Controllers

The PXM Trade offer includes four DMX controllers:

- PX333,
- PX345+,
- PX340+,
- PX710+.

A comparison of their parameters is shown in the table on page 6.

All the controllers are equipped with an Ethernet connector and are configured via a dedicated PC software.

PX333 is the smallest and the simplest controller in the family. It was specially designed to operate with a mobile app and is also the only controller that can be fully programmed with the app.

Three other controllers (PX345+, PX340+ and PX710+) are more advanced. They are equipped

with a real time clock that can be synchronized with a NTP server and an astronomical clock. This enables the user to program events in time with sunrise and sunset for the chosen geographical location.

All of the controllers support the Modbus protocol to make their integration with other control systems possible.

PX340+ and PX710+ are equipped with the DMX input and can record the input data stream, and play it back later.

The most advanced controller PX710+ has two DMX output lines. The basic PX710M+ module may be extended with maximum of 7 additional PX710S+ modules. It allows the user to create one system that supports up to 16 DMX output lines (8192 channels).

For managing the advanced controllers the

ETHERNET



All the controllers are equipped with the LAN socket that allows the controller to communicate with dedicated applications and to integrate with other systems.

PC APPLICATION



PC application with built-in devices and effects libraries is provided with the device. It allows the configuration and management of the controller.

KEYBOARDS



The dedicated system of keyboards and light sensors may be connected to the PX340+ or PX710M+ controllers besides the built-in digital and analog inputs.

PxDesigner desktop application is provided.

A mobile app is available for Android™ OS and iOS™, which allows to control the previously programmed elements on the controller.

PX340+ and PX710+ controllers support a

system of additional inputs. System consists of touch keyboards and motion+brightness sensors. Up to 64 devices may be connected to one controller. The whole system is programmed via the PxDesigner application.



MODBUS



All the controllers support the Modbus TCP/IP protocol. This allows integration with other systems.

MOBILE DEVICES



A dedicated mobile application is provided with the controllers. The application allows the user to manage the operation of controllers remotely.

BUILT-IN CLOCK



Advanced controllers (PX345+, PX340+ and PX710+) are equipped with real-time clock and astronomical clock. They allow user to program events according to sunrise and sunset as well as specific hour or date.

parameter	PX333	PX345+	PX340+	PX710+
DMX output channels	64	128	512	1024 (+7168)
DMX input channels	-	-	512	512
digital inputs	8	16	16	16
analogue inputs	-	-	4	4
analogue outputs	-	-	2	2
touchpanels support	NO	NO	YES	YES
mobile devices support	YES	YES	YES	YES
Modbus TCP/IP support	YES	YES	YES	YES
scenes	32	1024 (200 simultaneously)	1024 (200 simultaneously)	1024 (200 simultaneously)
masks	-	200	200	200
programs	8	512 (40 simultaneously)	512 (40 simultaneously)	512 (40 simultaneously)
program steps		250000 (1000 / program)	250000 (1000 / program)	250000 (1000 / program)
sequences	-	128	128	128
sequence steps	-	10000	10000	10000
statuses	-	256	256	256
DMX recording	NO	NO	YES	YES
internal events	-	1024	1024	1024
timers	-	1024	1024	1024
clock events	-	1024	1024	1024
event actions	144 (16 / event)	30000	30000	30000
action limits	-	30000	30000	30000
zones	16	16	16	32
users (including ADMIN)	4	4	8	16

Additional input devices

PX703 Touch Panel 10"



A PX703 Touch Panel 10" has been created for communication with the PX340+ and PX710+ controllers. One controller may be connected to max. 16 Touch Panels.

From the level of touch panel you can manage configurations that were previously uploaded to the controller.

The device allow you to turn on and off scenes and programs, trigger events, display statuses, modify master value.

To be able to communicate with the controller directly from the touch panel, it is necessary to create appropriate controller configuration via the PxDesigner application.

Touch Panel 10" can be powered by 12–24 V DC. In addition it has the ability to power PoE (Power over Ethernet) in the IEEE 802.3af standard, which allows you to power the device via twisted pair without using an external power supply while transferring data.

The PX703 is equipped with a 10.1" TFT touchscreen with a resolution of 1280 x 800px.

The device has a plastic and aluminum housing, has been designed for flush mounting (wall installation).

PX723 Keyboard 8



The touch keyboard that has eight buttons with a LED indicator each. It may be connected as an additional input module working with the PX340+ or PX710+ controllers.

The device is supported by the controller as eight digital inputs and eight LED indicators. The casing of the device allows for easy installation in a standard electrical box. The front panel of the keyboard is made of tempered glass.

PX734 Light & Movement Sensor



The light intensity sensor is integrated in one module with the movement sensor. The device may be connected as an additional input module to the PX340+ or PX710+ controller.

The device is seen by the controller as one analogue input (brightness sensor) and one digital input (movement sensor). The light sensor has three different modes suitable for working in dark, medium or bright environment.

The casing of the device is designed for easy wall or ceiling installation.

PX778 Extension module 8ch



PX778 is a device dedicated to work with PX340+ and PX710M+ controllers, in which it is possible to connect of additional inputs for the controllers.

Extension module 8ch expands the system by 8 digital inputs. It is possible to connect 64 devices (max. 32 per one extension line of controller).

In addition, the device has 8 OC outputs, to which signaling diodes can be connected.

Each of the inputs and outputs in PX778 can be configured using the PxDesigner application.

LED drivers

LED driver allows the control of LED strips or LED lamps via DMX, that are not equipped with the DMX receiver. PXM offers a wide range of LED drivers, both current and voltage. The devices differ in the number and load capacity of outputs as well as power supply voltage. There are also two types of housing: plastic for the DIN T-35 rail to be used in the switchboards, and metal to be integrated.

The comparison of all drivers is presented in the tables. All drivers equipped with a display have an intuitive menu that allows the user to set the parameters for the entire device, or the individual parameters of each channel.

It is possible to set a DMX address, operation mode, reaction to signal loss, PWM-frequency of

output signal and output power limits. The three- and four-channel drivers have a special "dynamic white" operation mode that allows control of the set of cold white and warm white lamps in an easy way. Most of the drivers support the DMX-RDM protocol, which allows to remotely read and set device parameters through the DMX line.

The PX178 driver is equipped with a color display and a USB connector for upgrading the firmware. This model is more advanced and have a real time clock and an astronomical clock.

There is also one special driver PX713 designed to control digital LED strips in which there is a possibility to control each pixel independently. The device operates with three types of strips: WS2811, WS2812B and WS2813.



RDM support



USB connector






































LED display



Graphical display



Dipswitch

	catalog number	outputs	output load	power supply	housing	
Current LED drivers	PX319	1	2A	12-48V	metal	
	PX319-HV	1	1,5A	12-60V	metal	
	PX789	1	2,3A	12-60V	metal	
	PX780	3	350mA	12-48V	DIN T-35	 
	PX745	3	350mA	12-48V	metal	 
	PX781	3	700mA	12-48V	DIN T-35	 
	PX746	3	700mA	12-48V	metal	 
	PX782	4	350mA	12-48V	DIN T-35	 
	PX714	4	350mA	12-48V	metal	 
	PX783	4	700mA	12-48V	DIN T-35	 
	PX715	4	700mA	12-48V	metal	 
	PX268+	12	350mA	12V	DIN T-35	
	PX763	36	350mA	12V	metal	 
	PX763-24	36	345mA	12-24V	metal	 
	PX863	36	350mA	12V	metal	 
	Voltage LED drivers	PX342	1	10A	12-24V	DIN T-35
PX254		3	6A	7-24V	metal	 
PX282		3	6A	12-24V	DIN T-35	 
PX370		4	5A	7-24V	metal	 
PX178		6	7,5A	12-24V	DIN T-35	 
PX163+		48	700mA	12-24V	metal	 

Multimedia

PX249 Audio DMX Player



The audio player is controlled directly with the DMX512 signal. The maximum of 2295 tracks in the WAV format, of any length, can be put on the SD/SDHC memory card.

The functions carried out by PX249 using the DMX controller allow the user to play selected track, play multiple tracks, loop single and many tracks, control a volume smoothly, adjust low and high tones and balance. The player can work in the mode with four or seven DMX channels.

The device has the following outputs: balanced, unbalanced, and an integrated power amplifier of 2x10W.

In addition, it is possible to connect an external START button.

The device is equipped with a colour display, which allows the user to view the status, and set up the device quickly.

PX245 Sound To Light



The audio signal converter to DMX512 is designed to synchronize music with the lights. The device has a colour display with an intuitive menu.

PX245 can be driven via DMX signal, through ON/OFF input or operated by itself. The user has access to 16 fully programmable configurations, for which the parameters of the audio signal processing can be changed freely.

The PC software for configuration is provided with the device. It is produced in a housing for mounting on a DIN T-35 rail.

PX376 HD Multimedia Player



The FULL HD (1920 x 1080p) video player, controlled with the DMX512 signal or through the LAN network with the UDP protocol.

It can play multimedia files in all popular formats. The files are stored on an external USB stick.

The device is equipped with a LAN connector that allows easy configuration with a PC application. It is possible to upload the playlist, set the DMX address and define the response to no DMX signal.

The user may also control the device from the application, using the UDP protocol.

The PC application makes it possible to connect and upload the configuration and playlist to multiple devices at the same time, which allows the user to update the multimedia material effectively and quickly.

The device is closed in a damage-resistant, metal housing with a special cover for connectors.

Supported file formats: mkv, avi, mpeg, mp4, ogg, wmv, mpg, mp3, wav, jpg, jpeg, png.



HDMI connector



Ethernet



Full HD



4 USB ports



PC Application

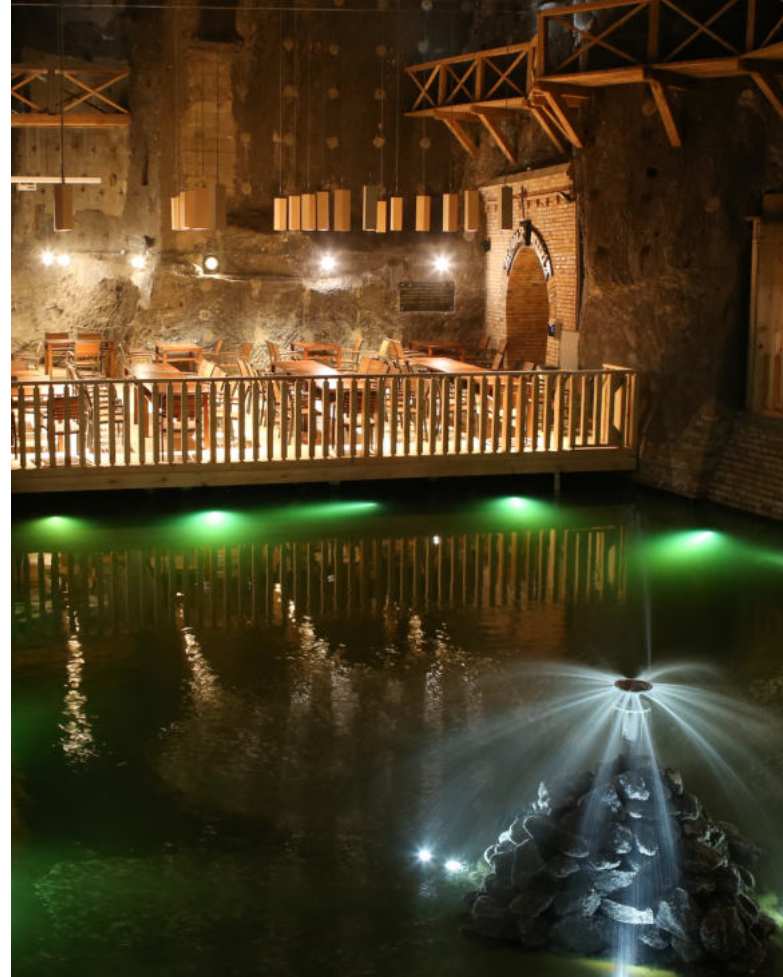
DMX equipment

PXM Trade offer consists of variety of devices that allows the user to modify a DMX line or convert a DMX signal to or from other protocols.

Designing physical layer of a DMX system, that will meet the standard requirements, can be challenging sometimes. Therefore we provide devices such as splitters, mergers and repeaters that make it easier to create fully functioning and interference resistant DMX installations.

Many years of experience have allowed us to improve our devices and to meet customers' needs by developing new solutions.

Our devices have been operating continuously for many years on various installations - sometimes in very challenging environments.



SPLITTER



Allows the splitting of a DMX line to several isolated physical branches. Makes large-scale systems easier to design, lowers the costs and makes the whole system more resistant to interference.

MERGER



Allows to connect multiple DMX sources into one system. The signals may be merged in several different modes of operation.

CONVERTER



Converts DMX signal to or from another protocol or system. It allows to integrate the DMX system with other control systems and devices.

PX165 DMX Splitter



By using the PX165 DMX Splitter, the DMX input signal can be divided into six independent lines, which are galvanically and optically separated both from the input and from each other. The splitter also strengthens the signal on each output line which guarantees the correct operation of the entire system.

It is produced in a housing for mounting on a DIN T-35 rail.

PX349 DMX-RDM Splitter



The PX349 supports the RDM protocol, which allows bidirectional packet transmission. It has four independent output branches. The individual outputs are galvanically isolated from input and between each other. The output signals are appropriately reinforced, which guarantees correct operation of the entire installation.

It is produced in a housing for mounting on a DIN T-35 rail.

PX097 DMX Repeater



PX097 works as an amplifier and a splitter of the DMX signal. It allows to attach 2x 32 receivers and increase the length of the DMX line. It has two optically separated outputs and therefore it can also serve as a splitter.

The device is produced in two types of housing: metal with XLR connectors or hermetic with cable glands (IP65).

PX788 Merger DMX 3/1



Merger DMX 3/1 was created to work in installations in which several controllers work and there is a need to "sum up" the outputs of this type of devices, and then send them further via one DMX line. PX788 allows to add DMX signals from different devices, and then, after selecting one of the 6 "mixing" modes, it sends the signals to a single DMX output.

Merger can operate in two configurations: 3 -> 1 or 2 -> 2 (the device can sum up 3 inputs and send the result DMX signal to one line or sum 2 inputs and send the result signal to two output lines).

Managing PX788 settings is possible using the buttons and the screen on the casing or using the Web Server built into the device.

PX787 DMX / DALI Interface 1x



The DMX512 signal converter to DALI protocol.

The device is equipped with two DMX (in / out) ports and one DALI port which allows to connect up to 64 devices – in accordance with the DALI standard. The converter also supports four digital inputs, from which you can set such actions as: turn on / off, set the scene or set the brightness.

Managing PX787 settings is possible by means of buttons and screen or by means of a built-in Web Server.

PX815 DMX/Relay Interface 2ch/3ch



DMX/Relay Interface is a relay controlled by DMX512 signal available in two versions: 2 or 3 channels. In the version with two channels, the possible output load is 16A per channel, while in the version with three channels up to 13A per channel.

PX257-RE DMX/Relay Interface

PX257-OC DMX/OC Interface



The device is made in two versions: 8 Relay Module and Switch 8x1.3A OC. It is used for switching on and off stage lighting and theatrical effects as well as architectural lighting equipment using the DMX512 signal. The module incorporates a set of 8 relays that control ON/OFF outputs.

The OC version of the device has digital DC switch, featuring maximum single circuit switching load of 1.3 A .

The RE version of the device has mechanical relays.

The menu of the device allows to program a DMX address individually for each output channel. It is also possible to set thresholds of hysteresis, set different output characteristics and define behaviour of the device when the DMX signal disappears.

The devices are produced for mounting on a DIN T-35 rail.

PX235 0-10V/DMX Interface



The advanced converter that can receive data from 8 analogue (0-10V) inputs or the DMX input and convert them to a DMX output signal. It is possible to select DMX channels, to which the processed signals are sent.

The colour display makes it easy to operate the device and monitor its status. In addition, the device has an integrated module to operate a wind sensor. It enables the conversion of impulse signals to DMX output.

The device also has the output of OC type (Open Collector), which can signal certain statuses in the form of alarms.

The device has an integrated output of 10V, which can power the analogue sensors such as e.g. potentiometers or photometers. The device is equipped with the USB connector for communication with a PC and updating firmware.

PX227 DMX/0-10V Interface



PX227 converts DMX signal to the analogue 0-10V signal.

Apart from simple DMX signal decoding, the device provides the possibility to set parameters for each of the eight outputs and program the response to the disappearance of the DMX signal.

The device is produced in a housing for mounting on a DIN T-35 rail.

PX292 DMX/4-20mA Interface



PX292 is used to process the DMX signal to the 4-20mA current drive.

The converter allows for programming the response to the disappearance of the DMX signal and setting the individual parameters for each of the eight output channels.

The device is produced in a housing for mounting on a DIN T-35 rail.

PX785 Ethernet Gate 4 DMX RDM



PX785 allows two-way conversion of ArtNet signal into four DMX512 ports. It has two modes of merging signals from two sources: HTP and LTP. The protocol version is ArtNet4 (compatible with ArtNet 1 – 4). DMX512 ports have optical and galvanic isolation.

The device is equipped with four DMX / RDM ports working in IN / OUT modes and one Ethernet port operating in the 10 / 100BaseTX standard.

The gate PX785 has a display and four buttons that allows to change the configuration: ArtNet, Ethernet and DMX settings.

The device is produced in a housing for mounting on a DIN T-35 rail.

PX786 Ethernet Gate 4 DMX



PX786 allows one-way conversion from ArtNet signal to four output DMX512 ports.

The device comes equipped with an Ethernet interface working in 10/100BaseTX protocol. The protocol version is ArtNet4 (compatible with ArtNet 1 – 4). DMX512 ports have optical and galvanic isolation.

The gate PX786 has a display and four buttons that allows to change the configuration: ArtNet, Ethernet and DMX settings (such as: Brake, MAB, MBF and the number of DMX channels transmitted).

The device is produced in a housing for mounting on a DIN T-35 rail.

PX359 DMX/RS-232 Interface



The converter of DMX512 to the RS232 protocol.

It allows for controlling the multimedia devices that supports RS232 protocol. It is often used to control the projectors with the DMX signal. The device has the LAN connector and a built-in web server that allows easy configuration via web browser.

The device has two RS232 output buses. Users may define separate commands set for each bus.

PX359 supports the RDM protocol. Additionally, the DMX address of device may be set with the hardware dipswitch.

PX300 CT Sensor



CT Sensor is used to measure brightness and colour temperature of light in the range from 2500K to 6000K. The measured values can be sent using the DMX-512 or RS-485 protocols to other devices.

The device allows to adaptively control the lamps equipped with adjustment of colour temperature of the emitted light depending on the ambient light.

The device is closed in a sealed IP65 housing.

PX795 Wireless DMX GT



PX795, 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 PX796).

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 PX795 has a metal housing adapted for mounting on the Global TRAC ® rail and is supplied with 230V AC.

PX796 Wireless DMX



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). 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 and is supplied with 12 – 24V DC safe voltage. It is also available in plastic housing suitable for wall mounting, with a protection class of IP65 and an external directional antenna with a 3m long cable.



Other devices

PX741 Trailing Edge Dimmer



PX741 is an intelligent transistor dimmer with phase shut-off, and trailing edge control.

The module controls four channels - 200VA each and has a built-in interference elimination system, fuses and signal controls. The device has one DMX input, four 0 - 10V analog inputs and the possibility to connect four external buttons that may be set in one of four different operation modes.

Each of the four output channels can be configured individually. The settings include: input source, input characteristics and range of control signal.

Dimmer is designed to work with loads type R and RC:

- dimmable LED bulbs,
- LEDs connected to a dimmable CC type power supply,
- traditional bulbs,
- 230 V halogen lamps,
- 12 V halogen bulbs connected to a dimmable electronic transformer.

PX741 supports the RDM protocol.

The device is enclosed in a housing for mounting on a DIN T-35 rail.

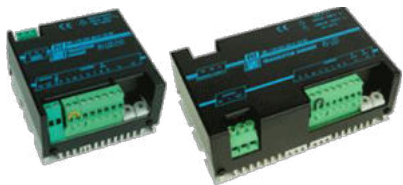
PX218 RDM Controller



The transmitter of the DMX-RDM signal can monitor the status and change the settings of the devices supporting the RDM protocol that are connected to the DMX system. PX218 operation management is done using the PC application via the USB port. The application allows the user to search for RDM devices in the DMX network, view the status and set the parameters of the selected device.

PX218 is enclosed in a damage-resistant, metal housing and powered from the computer via a USB port.

RVLED250/500/1000 Dimmer



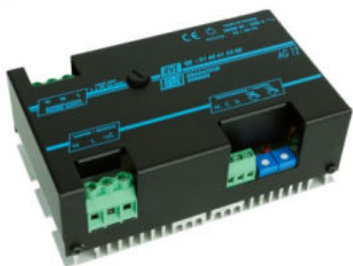
This dimmer was specially developed for the control of 230V LED lights as well as LED lights with controllable electronic transformers. By means of the numerous adjustment possibilities, both the phase on and the phase off can be influenced. In addition, it is possible to operate the unit with a control voltage, buttons or as a master for other load units. The units are designed for 35mm DIN rail.

RV5/10/15 Dimmer



A range of dimmers for different loads: incandescent lamps, transformers and FL lights with dimmable ballasts. The series includes units up to 1000W/2300W or 3800W. In addition, the user has the option to operate the unit with a control voltage, buttons or as a master for other load units. The units are designed for 35mm DIN rail.

AG12 Dimmer



Simple dimmer for loads up to 2700W. Incandescent lamps, transformers and FL lights with dimmable ballasts can be controlled. The control is done by means of a control voltage or a directly connectable potentiometer. The unit is designed for 35mm DIN rail, but can also be supplied in an IP32 housing with switch and rotary potentiometer.

References



About PXM Trade GmbH

The company PXM Trade GmbH is a joint venture of the companies PXM Marek Żupnik sp.k from Poland and Manfred Schachenmann, Planung und Beratung, from Switzerland.

It was founded in 2019 in Weil am Rhein.

About Manfred Schachenmann

The company Manfred Schachenmann deals exclusively with lighting technology for multipurpose halls and theaters and the distribution of selected products. Over 500 systems have been installed in the last 40 years with the cooperation of Manfred Schachenmann in Germany and abroad. During this time, numerous innovations in the product range have been developed to marketability and introduced in the corresponding fields.

Another field of activity is consulting and planning for practical and appropriate lighting

About PXM

PXM company was established by a team of electronic engineers in 1991 under the name of PROXIMA. The company's goal was to design and produce the stage and disco lighting controllers, make installations and distribute products of foreign companies.

Since 1999, the company began to gradually change the profile, giving up the installation and distribution of third party products.

Since 2001, we only deal with designing and manufacturing our own devices. Seeking both new technologies and different applications of manufactured equipment, in 2004 PROXIMA was the first Polish company to develop and introduce LED control system based on DMX512 protocol.

In 2008 the company name was changed to PXM.

At the beginning of 2016 the company moved to a modern headquarters in the Special Economic Zone in Niepołomice.

Today PXM consists of production, design department, measurement stands and laboratories. We offer dimmers, controllers, signal converters, LED drivers and LED lamps. Our devices are used in museum lighting, architectural illumination, highlighting fountains and plants lighting. Our products are working in the National Museum in Warsaw, the Wieliczka Salt Mine and many others.



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