PX282

PiXiMo 18

LED Driver
3 x 6A OC

MANUAL

PXM®

CONTENS

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

1. GENERAL DESCRIPTION

The PX282 driver is designed to control LEDs. The device has been placed inside DIN rail housing. The built-in DMX receiver allows for activating 3 channels (R, G, B) by using directly the DMX protocol. A wide range of supply voltage and a high level of current-carrying capacity (6A) enable activating large quantities of LEDs.

PX282 can be controlled by the DMX signal or it can work independently.

In such operation mode, the user has access to a fully programmable scene and 18 default sequences for which he can also change the playback speed and the smoothness of transition of particular steps. With the use of 16-bit resolution, controlling the parameters of channels is completely smooth. Moreover, the driver offers an effect control mode which allows for controlling the programs that are built into the device and, at the same time, changing such parameters as speed, brightness and fade settings using the DMX-512 signal sent from an external controller.

The driver offers a built-in control signal frequency tuning system ("flicker free" technology), which makes it useful in applications for the television industry. As LEDs from the RGB series often differ in parameters, problems in receiving white colour may occur (triggering 100% at all channels). This is why the PX282 has been equipped with a very useful feature called 'white balance.' With this feature, each set of LEDs can be adjusted so that the control of individual colours by the module enables achieving white colour at full activation.
 What is more, this feature allows for adjusting colour temperature of white output colour.

The PX282 version equipped in 6A outputs and supporting RDM protocol has been introduced to the production starting from 14260014 serial number.

2. SAFETY CONDITIONS

PX282 LED Driver 3 x 6A OC is a device powered with safe voltage 12-24 V; however, during its installation and use the following rules must be strictly observed:

1. The device may only be connected to 12 - 24 V 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. Connection of power supply can only be made with a conductor of minimum cross-section area of 2,5mm^2 and DMX signal with shielded conductor.
5. All repairs and connections of outputs or DMX signal can only be made with cut off power supply.
6. PX282 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. CONNECTIONS AND CONTROL ELEMENTS DESCRIPTION
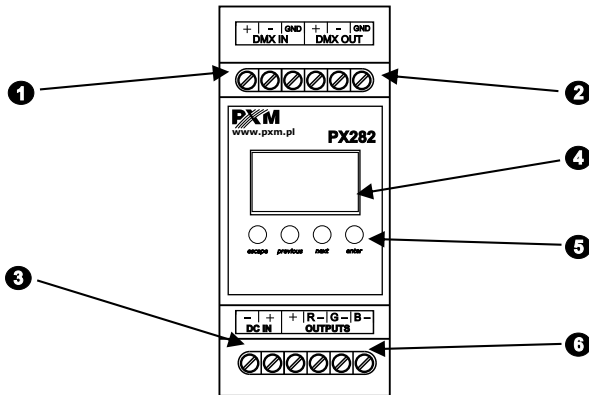
❶ DMX-512 input

❷ DMX-512 output

❸ Power supply

❹ Display

❺ Programming keys

❻ Control outputs

4. DESIGNATION OF DISPLAYED MESSAGES

`008.`	DMX address of a device - a basic item in the MENU
`ALL.`	setting parameters for all channels simultaneously
`Ind.`	setting parameters for each channel individually
`Adr.`	DMX address setting
`Cбn.`	control method selection (RGB, LIGHTNESS / COLOUR, etc.)
`nбS.`	no DMX signal response method selection
`C_d.`	MASTER / SLAVE mode settings
`2б8.`	LIGHTNESS /COLOUR control mode
`3б8.`	RGB control mode
`3бd.`	RGB Dimmer control mode
`HSL.`	HSL control mode - HUE / SATURATION / LIGHTNESS
`EFF`	effect control mode
`бn8.`	all outputs at 100%

`oFF.`	all outputs off
`Sc .`	scene
`P17.`	programme no. 17
`Ad1.`	DMX address settings for first channel
`Con.`	MASTER mode on / off
`CHn.`	number of channels being sent in the MASTER mode
`bAL.`	white colour balance setting
`bLr.`	red balance
`bLG.`	green balance
`bLb.`	blue balance
`bCn.`	white colour balance on / off
`SPd.`	program playback speed
`FAd.`	level of steps change smoothness in the program
`rEd.`	red colour during scene programming
`Grn.`	green colour during scene programming
`bLu.`	blue colour during scene programming
`Frq.`	basic frequency of brightness control
`SCr.`	screen and DMX signal LED blanking
`Err.`	memory error message
`dFL.`	restore default device settings menu
`r01.`	message about overloading Red channel when start address is set to 001
`0G1.`	message about overloading Green channel when start address is set to 001
`00b.`	message about overloading Blue channel when start address is set between 001-9
`rGb.`	message about overloading all RGB channels

In case when MASTER feature is active dot in the lower right corner starts to blink with 0,25 Hz frequency. When the PX282 is receiving DMX-512 signal it starts to blink with 4-times bigger frequency (1 Hz).

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5. DMX ADDRESS SETTING

The menu of the PX282 driver allows for setting the DMX address within a range between 1 and 506-511 depending on work mode of device. For example in RGB mode it occupies three consecutive DMX addresses. If start address is set to 510, the last channel is occupied by address 512.
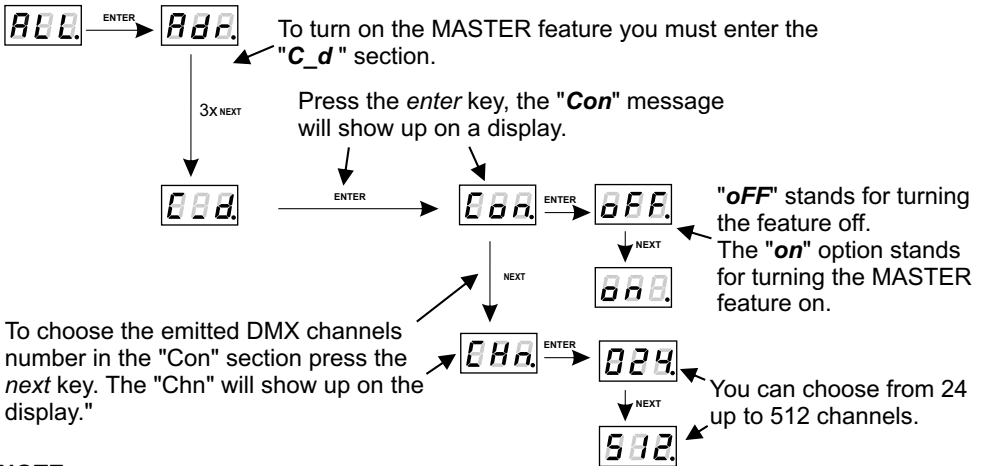
To set the DMX address:

1. Set the *Adr*. function.

2. Use the "next" or "previous" buttons to set the selected DMX address.
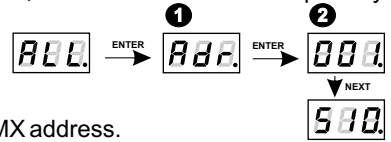
6. MASTER / SLAVE FUNCTION

The PX282 module has a built-in DMX-512 receiver and can be controlled from any desktop or controller running in this standard. Moreover, it is equipped with a programmable function of response to no DMX signal (*noS*). With 18 built-in default programs, it is possible to obtain interesting effects without an external controller. However, in larger installations, several PX282 drivers implementing the same program cannot provide a full playback synchronisation. Therefore, PX282 has a MASTER feature. When it is activated, the module changes from a DMX receiver into a transmitter of this signal and sends programs to the other modules (which are set as SLAVE). With this solution, it is possible to make a precise synchronization even in very large installations.

To turn on the MASTER feature you must enter the "*C_d* " section.

Press the *enter* key, the "*Con*" message will show up on a display.

"*oFF*" stands for turning the feature off.
The "*on*" option stands for turning the MASTER feature on.

To choose the emitted DMX channels number in the "Con" section press the *next* key. The "Chn" will show up on the display."

You can choose from 24 up to 512 channels.

NOTE:

PX282 sends basically 3 channels - R, G , B, respectively, but because the DMX standard specifies the number of channels being sent to a minimum of 24, these 3 basic channels are replicated eight times; if need arises, it is possible to replicate them on 512 channels (not recommended due to lower transmission rate).

In case when MASTER feature is active dot in the lower right corner starts to blink with 0,25 Hz frequency. When the PX282 is receiving DMX-512 signal it starts to blink with 2-times bigger frequency (0,5 Hz).

7. WHITE BALANCE

Sometimes, there can be problems with getting white colour on the RGB series LEDs. This may be a result of using diodes with different technical parameters. For this reason, the PX282 module is equipped with a white balance function. This option allows for choosing a correct colour temperature for full activation of all 3 outputs (white colour).
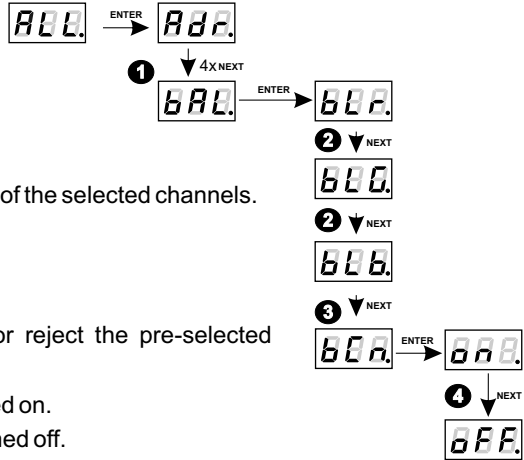

To set the white balance:
1. Enter the **bAL** function.
2. Select an appropriate value for each of the selected channels.

> **bLr** - for red
> **bLG** - for green
> **bLb** - for blue

3. Enter the **bCn** option to accept or reject the pre-selected values.
4. **on** means that white balance is turned on.
   oFF means that white balance is turned off.

8. COLOUR SETTINGS MODE

The PX282 driver can operate in the effect (**EFF**), HSL, 4-channel, 3-channel or 2-channel mode. Desription of **EFF** mode is shown on next page. The **HSL** mode (Hue, Saturation, Lightness) operates on three channels, responsible for hue, saturation and lightness, respectively. Working in the 3bd mode (4-channel, 4-byte) allows for setting each colour individually: R (red), G (green), B (blue) and, on the fourth channel, the Dimmer function is implemented - dimming all outputs. In the 3-channel mode (3 -byte), each colour (R, G, B) can be set separately. Whereas working in the 2-channel mode (2-byte) consists in selecting lightness and one of the 256 colours defined by the manufacturer.

To select the colour mode, enter the **Cbn** function in the **ALL** menu, and then select the desired colour mode: 2b for the 2-byte mode, 3b for the 3-byte mode, 3bd for the RGB Dimmer mode, **HSL** or **EFF** for the Effect Mode.After setting the selected mode in the individual settings menu (see section 9), the number of editable channels will be limited in accordance with the selected mode (e.g. up to 2 channels for 2b-2byte).
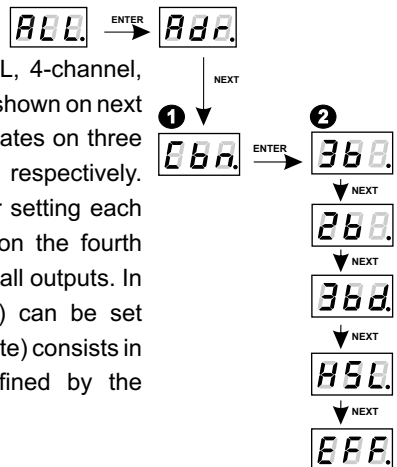
Description guide of *EFF* mode settings

EFF mode (effect) channels desription						
CHANNEL1 RED	CHANNEL2 GREEN	CHANNEL3 BLUE	**CHANNEL4 – MODE**	CHANNEL5 SPEED	CHANNEL6 FADE	CHANNEL7 BRIGHTNESS
-	-	-	< 0 - 7 > **Program1**	x	x	x
-	-	-	< 8 - 15 > **Program2**	x	x	x
-	-	-	< 16 - 23 > **Program3**	x	x	x
-	-	-	< 24 - 31 > **Program4**	x	x	x
-	-	-	< 32 - 39 > **Program5**	x	x	x
-	-	-	< 40 - 47 > **Program6**	x	x	x
-	-	-	< 48 - 55 > **Program7**	x	x	x
-	-	-	< 56 - 63 > **Program8**	x	x	x
-	-	-	< 64 - 71 > **Program9**	x	x	x
-	-	-	< 72 - 79 > **Program10**	x	x	x
-	-	-	< 80 - 87 > **Program11**	x	x	x
-	-	-	< 88 - 95 > **Program12**	x	x	x
-	-	-	< 96 - 103 > **Program13**	x	x	x
-	-	-	<104 - 111 > **Program14**	x	x	x
-	-	-	<112 - 119 > **Program15**	x	x	x
-	-	-	<120 - 127 > **Program16**	x	x	x
-	-	-	<128 - 135 > **Program17**	x	x	x
-	-	-	<136 - 143 > **Program18**	x	x	x
-	-	-	<144 - 151 > **OFF**	-	-	-
x	x	x	<152 - 169 > **Strobo 10%**	x	-	x
x	x	x	<170 - 199 > **Strobo 20%**	x	-	x
x	x	x	<200 - 229 > **Strobo 50%**	x	-	x
x	x	x	<230 - 255 > **RGBD**	-	-	x

Channel 4 – work mode settings

CHANNEL1 - red colour
CHANNEL2 - green colour
CHANNEL3 - blue colour
CHANNEL4 - operating mode selection
CHANNEL5 - speed settings (higher value - quicker changes)
CHANNEL6 - fade settings (higher value - smoother transition)
CHANNEL7 - lightness settings (higher value - stronger glow)

character ("x")   - possibility to control a given parameter of a selected mode
character ("-")   - no possibility to control a given parameter of a selected mode

9. INDIVIDUAL SETTINGS

The PX282 module has an option that allows for changing individual settings. It enables assigning any DMX address to every output channel. The simplest example of implementation of this function is to control the lightness of one-colour LEDs connected to all outputs. In such case, the same address must be assigned to all channels so that all outputs are controlled by one slider on the control panel.

If you select the operating mode in the *Cbn* menu, which limits the number of channels in relation to the maximum value, an individual address out of the range cannot be programmed.

For example, after selecting the 2b mode, a chosen value can be assigned only to addresses 1 and 2. For the rest from *Ad3* up to *Ad7*, the device will display the message *---* ; this means the address is out of the operating mode range.
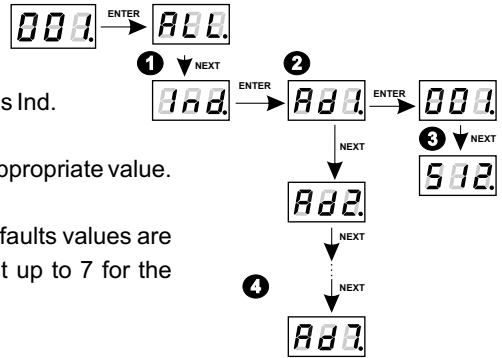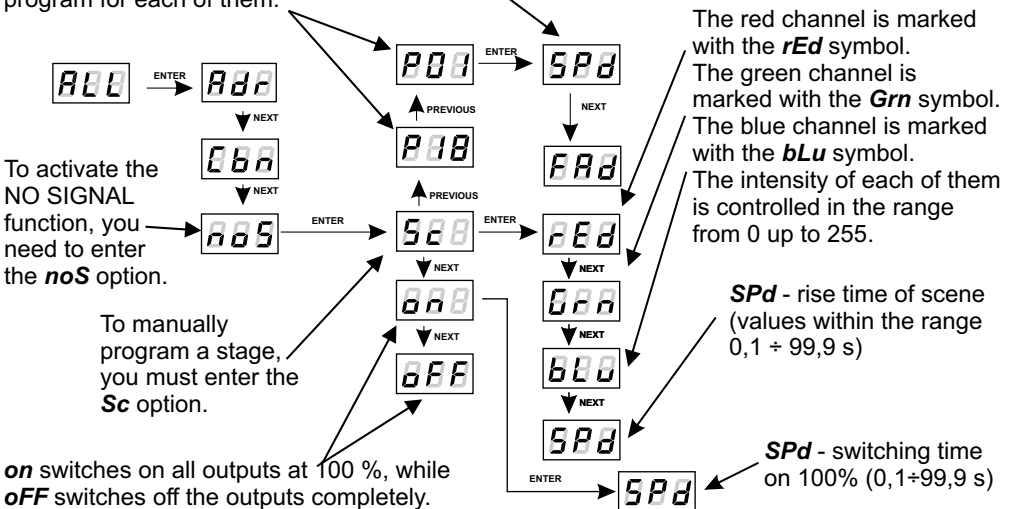
To program individual settings:

1. Enter the individual settings function marked as Ind.
2. Go to the first output settings marked as Ad1.
3. Using the "next" or "previous" buttons set an appropriate value. You can choose from 1 up to 512.
4. Set the address for the remaining outputs (defaults values are subsequent values from 1 for the first output up to 7 for the seventh output).

10. NO DMX SIGNAL RESPONSE

This function is used both to protect the installation against the DMX signal loss and to obtain control over LEDs without connecting an external controller. Once it is activated, if there is no DMX signal the module will realize a desired function independently. Reconnecting the DMX signal will automatically break the realized function and the module will once again follow the commands transmitted via the DMX line.

You can also use the 18 preset programs.
It is also possible to set the reproduction speed and step change smoothness in the program for each of them.

To set the reproduction speed, you must press the „enter" button in the tab of a given program. The *SPd* message appears. Press the "enter" button again and select an appropriate value in the range from 0.1 up to 99.9 seconds. To confirm these setting, press „enter".

The red channel is marked with the *rEd* symbol.
The green channel is marked with the *Grn* symbol.
The blue channel is marked with the *bLu* symbol.
The intensity of each of them is controlled in the range from 0 up to 255.

To activate the NO SIGNAL function, you need to enter the *noS* option.

To manually program a stage, you must enter the *Sc* option.

on switches on all outputs at 100 %, while *oFF* switches off the outputs completely.

SPd - rise time of scene (values within the range 0,1 ÷ 99,9 s)

SPd - switching time on 100% (0,1÷99,9 s)

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The FAd function - to change the rate of steps change, you need to confirm "enter" on the tab of a program you are interested in. Then, click the „next" or „previous" buttons to set the **FAd** parameter. Then, press the enter button and enter a chosen value between 0 (abrupt transition) up to 100 (completely smooth transition) using the „previous" or „next" buttons. Confirm these settings by pressing the „enter" button.

11. DESCRIPTION OF PROGRAMS

The following tables show the values for each output channel - R, G and B in programs from 1 up to 18 (P01 - P18). The value of 255 corresponds to the maximum lightness level on a given channel, 127 - 50% of power level, 0 - full channel blanking.

		P01	P02	P03	P04	P05	P06	P07	P08	P09	P10
	R	255	0	0	0	255	255	0	255	0	255
step 1	G	0	0	0	0	0	0	255	0	255	0
	B	0	255	0	0	0	0	255	0	0	0
	R	0	0	255	0	255	255	255	0	0	0
step 2	G	255	255	0	0	255	0	0	255	0	0
	B	0	0	0	255	0	255	255	0	255	255
	R	0	255	0	0	0	0	255			
step 3	G	0	0	0	0	255	0	255			
	B	255	0	0	0	0	255	0			
	R				0	0	0	0			
step 4	G				255	255	255	255			
	B				0	0	255	255			
	R				0	0	0	0			
step 5	G				0	0	0	255			
	B				0	0	255	0			
	R				0	255	255	255			
step 6	G				0	0	0	255			
	B				255	0	255	0			

		P11	P12	P13	P14	P15	P16	P17	P18
	R	0	0	0	255	0	0	0	0
step 1	G	0	0	0	0	255	0	127	0
	B	0	0	0	0	0	255	255	0
	R	255	0	0	255	127	127	127	255
step 2	G	0	255	0	127	255	0	255	255
	B	0	0	255	0	0	255	127	255
	R				255	0	0	255	
step 3	G				0	255	0	127	
	B				0	0	255	0	
	R				255	0	0	127	
step 4	G				0	255	127	0	
	B				127	127	255	127	

12. LIGHT CONTROL FREQUENCY

The **Frq** function allows for setting the basic control frequency for the LEDs. This function is extremely useful in applications for the television industry. By applying the "flicker free" technology, it is possible to avoid the unpleasant flickering effect which is caused by improper signal synchronization that controls the LEDs. The user can choose from the available frequency range from 366 Hz up to 25.0 kHz which can be smoothly changed using the previous or next buttons and selecting a different value.

The frequency value in the upper range (e.g. 1.50 = 1.5 kHz) helps to avoid the flickering effects that are visible in video cameras.
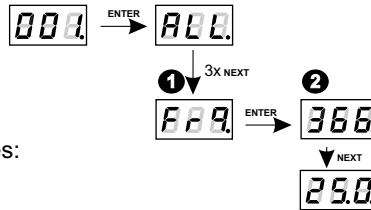
To set the selected range of basic frequencies:

1. Set the **Frq** function.
2. Set the selected value using the „next" or „previous" buttons.

13. SCREEN SAVING (SCREEN BLANKING)

The device is equipped with a feature that allows for turning off the backlight. This option is marked with the **SCr** sign. With this feature, the display is turned off after 5s (if the keys of the device are not pressed). Of course, the device continues its operation without interfering with other parameters. Press any key to restore the backlight.
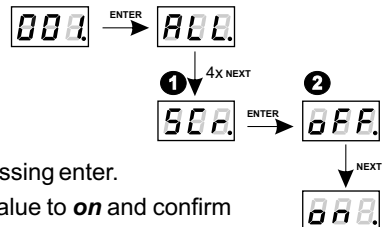

To activate the screen saving feature:

1. Set the **Scr** function and confirm the selection by pressing enter.
2. Use the „next" or „previous" buttons to change the value to **on** and confirm the selection by pressing „enter".

Similarly, select **oFF** to turn off the function.

14. SMOOTH

The driver is equipped with a smooth option. Smooth feature allows for smooth changes in lightness and colour. When it is set to On the transition between successive DMX values sent to the lamp (e.g. corresponding to changes in lightness) are smooth with no visible twitches, which prevents the common light "vibrations" effect. Two consecutive DMX values sent to the lamp are smoothed linearly between the DMX signal packets for the selected $\boxed{P2P}$ option or the time interval set in the $\boxed{t\,i\,n}$ menu.
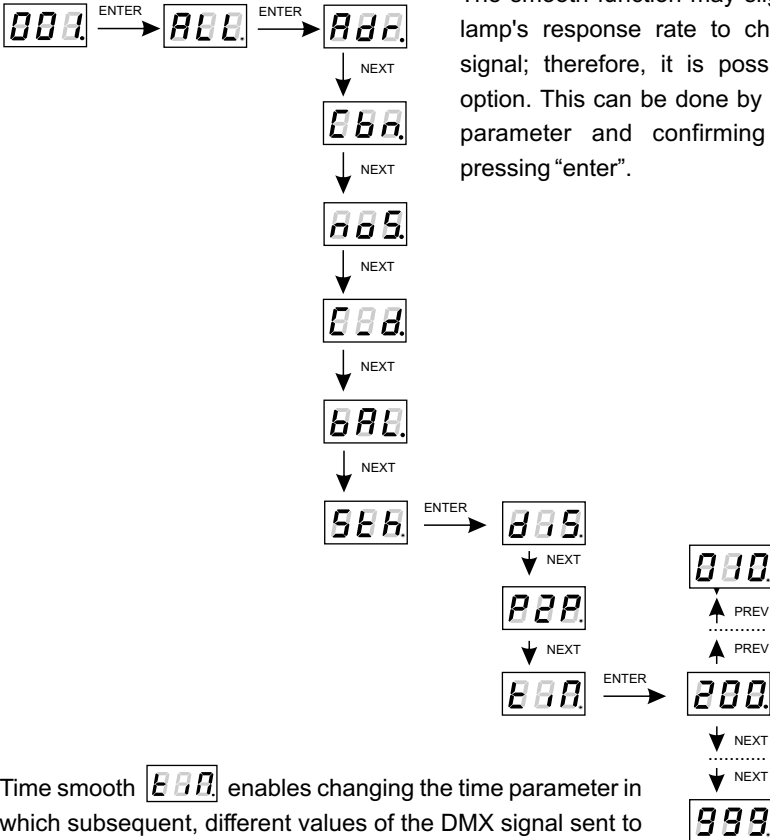
The smooth function may slightly slow down the lamp's response rate to changes in the DMX signal; therefore, it is possible to disable this option. This can be done by checking the $\boxed{d\,i\,5}$ parameter and confirming the selection by pressing "enter".

Time smooth $\boxed{t\,i\,n}$ enables changing the time parameter in which subsequent, different values of the DMX signal sent to the lamp are smoothed between each other. The minimum value is 10 [ms] and the maximum is 999 [ms].

## 15. DEFAULT SETTINGS AND MEMORY ERROR (Err)

The device has a built-in feature that allows for restoring default settings.

To use this option, PX282 must be disconnected from the power supply. Before restoring the power, press and hold the „previous" button. After turning the device on, the $\boxed{dFl}$ message will appear on the screen (when turning on the power until displaying the previous $\boxed{dFl}$ message, the „previous" button must be pressed).

This menu designation restores default settings. Accepting this message by pressing the „enter" key restores default settings. It is also possible to exit this menu without returning to default settings by pressing the „escape" button.

• The default settings in PX282 are as follows:
  • DMX address - 1,
  • driver operating mode - RGB (3b - 3-byte),
  • master mode - off,
  • number of sent DMX channels - 128,
  • white balance - off
  • no signal operating mode - Program 1
  • smooth function - off
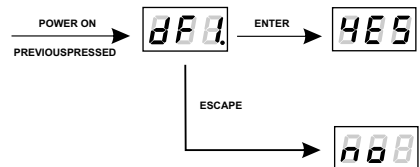
Err message - memory error

The device is equipped with a built-in memory work control function.

If there are problems with the memory operation, on the PX282 display the Err message appears $\boxed{Err}$ - memory error.

In this situation, select the *enter* button. The device will reload the default configuration and upload it to the memory. If after this operation, the $\boxed{Err}$ message remains on the screen, the memory is permanently damaged and the unit must be sent to the service point.

16. EXCEEDING THE MAXIMUM LOAD

Driver has built-in protection against exceeding the permissible load of 6 A per channel. In the case of exceeding the permissible load on the display starts to display a flashing sign r when the load is exceeded on the R(red), G for channel G(green) and b for channel B(blue).

Starting from firmware version 2.03 there has been introduced an update that any overload or short circuit on the output channel causes channel shut down and than a slow and smooth transition to a previously predetermined value. The result of this is achieving of maximum at this output (the channel to which might be connected e.g. LEDs) in about 15-20 seconds.
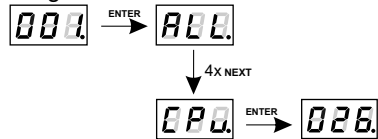
Below are examples of messages displayed by the device for overburdened individual channels, while the PX282 in the basic menu with address 1 ($\boxed{0\ 0\ 1}$).Exceeding the load does not change on the rest of the segments of the display, they displayed earlier message unchanged.

$\boxed{r\ 0\ 1}$ $\boxed{0\ G\ 1}$ $\boxed{0\ 0\ b}$

1 channel is overloaded(r) 2 channel is overloaded(G) 3 channel is overloaded(b)

In case of an overloading of all three channels at the same time a flashing $\boxed{r\ G\ b}$ message is displayed.

17. CPU TEMPERATURE

The PX282 has a built in processor temperature measurement function. If the temperature exceeds 70°C, the temperature limitation is activated linearly decreasing the current on the outputs from the device. After reaching of the 82°C the total exclusion of all outputs is taking place. To check the current CPU temperature You should go to the "CPu" menu.

$\boxed{0\ 0\ 1.} \overset{\text{ENTER}}{\longrightarrow} \boxed{R\ L\ L.}$

$4\text{X NEXT} \downarrow$

$\boxed{C\ P\ U.} \overset{\text{ENTER}}{\longrightarrow} \boxed{0\ 2\ 6.}$

18. RDM

The PX282 supports the DMX-RDM protocol. DMX protocol allows only of a one-way data transmission, while its extension the RDM protocol can transmit information in two directions. This makes possible to simultaneously send and receive information, and hence the possibility of monitoring activities of the compatible devices. Thanks to RDM some available settings of compatible devices may be programmed using this protocol.

Below is a list of RDM parameters supported by the PX282:

- SUPPORTED_PARAMETERS - all supported parameters - **PID: 0x0050**;
- PARAMETER_DESCRIPTION - additional parameters description - **PID: 0x0051**;
- DEVICE_INFO - information about device - **PID: 0x0060**;
- SOFTWARE_VERSION_LABEL - firmware version of device - **PID: 0x00C0**;
- DMX_START_ADDRESS - start DMX address of device - **PID: 0x00F0**,
    Editable parameter. Minimal value is 1 and max. 512. According to the RDM standard for the device, whose footprint is 0, the value of this parameter may be 65535 and then the initial address settings of entire device can not change. DMX addres can be set only for subdevices;
- IDENTIFY_DEVICE - allows to identify a device - **PID: 0x1000**,
    Editable parameter. You can set it into two states: the identification disabled (0x00), and identifying enabled (value 0x01);
- STATUS_MESSAGES - information about device status - **PID: 0x0030**;
- DEVICE_MODEL_DESCRIPTION - device description e.g. name - **PID: 0x0080**;
- MANUFACTURER_LABEL - e.g. name of manufacturer - **PID: 0x0081**;
- DEVICE_LABEL - additional device description - **PID: 0x0082**,
    Editable parameter. It is possible to enter additional description of the device using up to 32 ASCII characters (characters available on a standard QWERTY keyboard);

- DMX_PERSONALITY - DMX working mode - **PID: 0x00E0**,
    Editable parameter. The selectable DMX work modes are listed below:
    1) RGB mode (see item 9 of this manual) - a value of 1;
    2) 2B mode (see point 9) - a value of 2;
    3) RGBD mode (see point 9) - a value of 3;
    4) The HSL mode (see point 9) - the value of 4;
    5) EFFECT mode (see point 9) - the value of 5;
- DMX_PERSONALITY_DESCRIPTION - description of particular work modes - **PID: 0x00E1**;
- DEVICE_HOURS - operating time counted in hours - **PID: 0x00E0**;
- BALANS_RED - value of control level of red chanel balance - **PID: 0x8011**,
    Editable parameter. Minimum value is 0 and maximum is 100 (the value equals to pecentage of control level). For the maximum value (100) the LEDs work with maximum brightness. Default value is 100.
- BALANS_GREEN - value of control level of green chanel balance - **PID: 0x8012**,
    Editable parameter. Similar as in the preceding paragraph only for green channel;
- BALANS_BLUE - value of control level of blue chanel balance - **PID: 0x8013**,
    Editable parameter. Similar as in the preceding paragraph only for blue channel;
- SMOOTH_DIS_0/P2P_1/TIM_2 - the choice of options relating to the Smooth function - **PID: 0x801A**, **Editable parameter.** At 0 value Smooth is turned off, for a value of 1 Smooth mode is set to a Packet to Packet (P2P) and for the value of 2 Smooth is in time mode (TIM-description in 14th point). The default value is 0 - Smooth off;
- SMOOTH_TIME – Smooth time for TIM function chosen in subsection above - **PID: 0x801B, Editable parameter**. Unit in [ms]. Minimal value of this parameter is 10 and maximal 999 [ms]. Default value is 200.
- NO_SIG_P1-18|SC_19|ON_20|OFF_21 - choice of work mode for No DMX signal - PID: 0x801C, Editable parameter. Minimal Value is 1, maximal 21. For values 1-18 menu allows to chose program from 1 to 18 which is played during no DMX signal detection. For the 19 value a scene saved in memory is set and for the 20 value all outputs are set to ON with maximum value. The value 21 sets to OFF all outputs during time with no DMX signal received. Default value is 21;
- SCENE_RED - settings of red channel value for scene saved in PX282 - **PID: 0x801D, Editable parameter**. Minimal value is 0, maximal 255 (maximal brightness). By defualt value set to 255;
- SCENE_GREEN - settings of green channel value for scene saved in PX282 - **PID: 0x801E, Editable parameter**. Similarly as in the subsection above;
- SCENE_BLUE - settings of blue channel value for scene saved in PX282 - **PID: 0x801F, Editable parameter.** Similarly as in the subsection above;
- SCREENSAVER_ON/OFF - settings of screensaver (display backlight in PX282) - **PID: 0x8022**, **Editable parameter**. With the 0 value display blanking is not active, the 1 value means screensaver active. Default value is 0;

- PROGRAM_SPEED - programs playback speed settings (playing next steps of program) - **PID: 0x8023, Editable parameter.** Minimum value is 1 and maximal 999 (maximum speed). By default it is set to 10. Value 1 represents 0,1s, and 999 - 99,9s;
- PROGRAM_FADE - settings of smooth transition between following steps of a program - **PID 0x8024, Editable parameter.** The minimum value is 0 (step transition) a maximum of 100 (transition completely smooth). The default value is 100;
- BALANCE ON / OFF - to activate or deactivate the balance of output channels - **PID 0x8025, Editable parameter.** A value of 0 is a balance off, a value of 1 active balance. The default value is set to 0;
- PWM_FREQENCY - LEDs refresh frequency - **PID 0x8026, Editable parameter.** The minimum value is 366 and the maximum is 25000. The unit is [Hz] and the default value is 366.
- SERIAL_NUMBER - device serial number - **PID: 0x8030**, **Editable parameter**. The minimum value is 0, and the maximum is 4294836225. The default value is 0.

19. PROGRAMMING
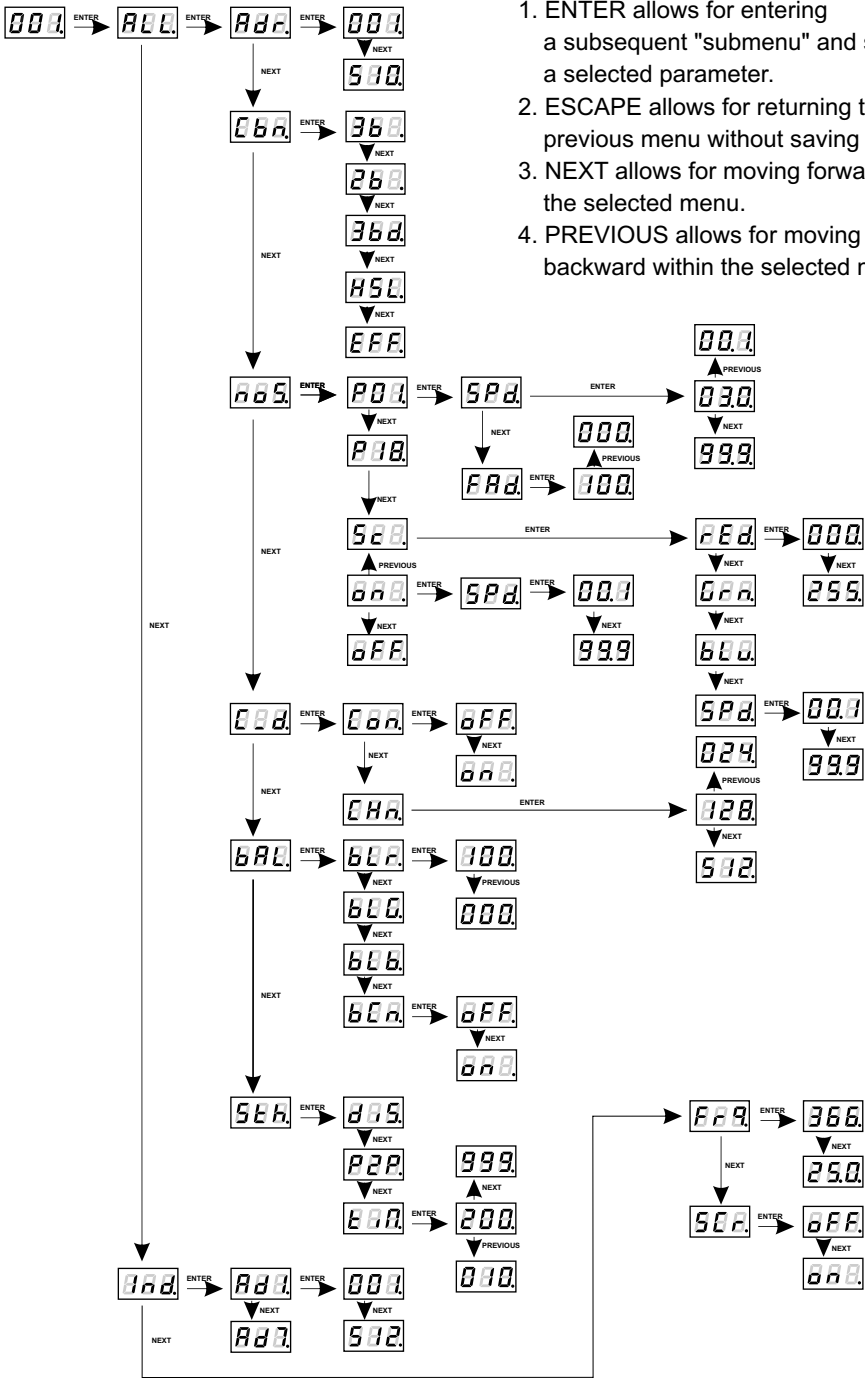
17

20. CONNECTION SCHEME

Due to use of passive-type DMX in the PX282 driver, a terminator is needed at the end of DMX line. Such a solution allows to connect up to 32 of the PX282 drivers to a DMX controller (serial connection).

The connections have to be made with wires of appropriate gauge. The proper connection lowers the risk of damaging the driver and improves its reliability. For DMX signal connection use the shielded conductors only.
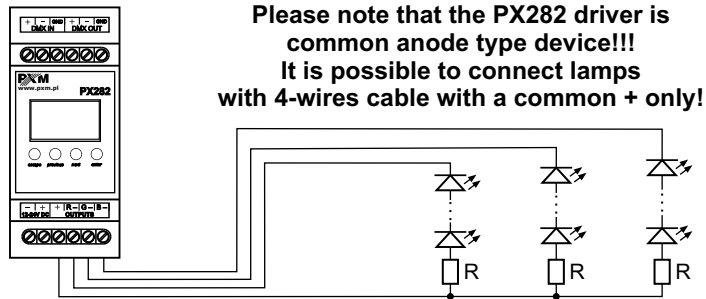
CAUTION: In case of voltage loss on one of the modules in a chain, this one and the subsequent modules will not respond to a DMX signal.
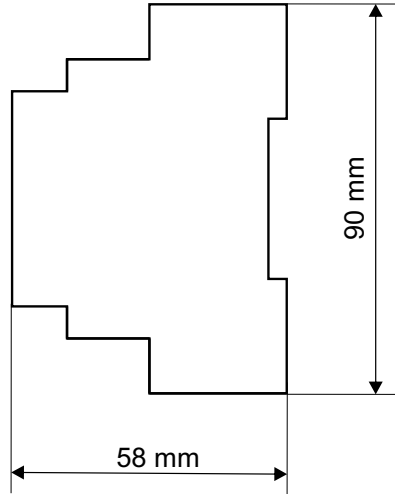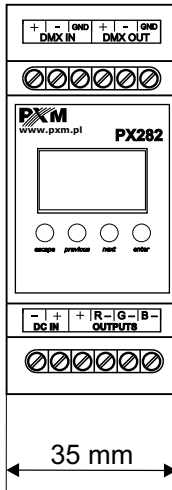
sample connection of LED strip

DMX controller

DMX+

DMX-

GND

to next modules

12-24V DC power supply

typical LED strip
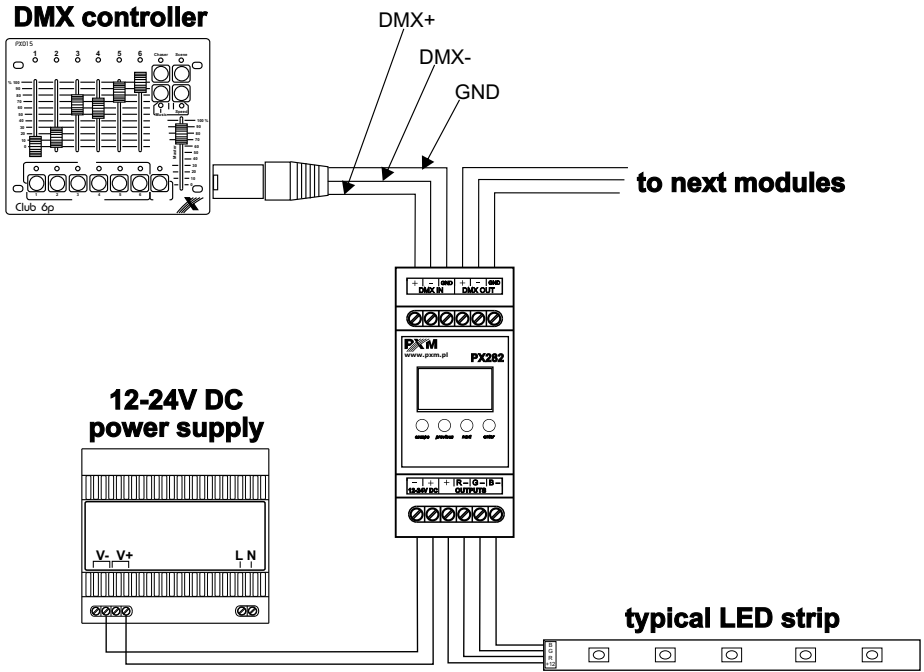
Caution!! For power supply connection, use only cable of minimum 2.5 mm^2 cross-section

schematic connection of LEDs

Please note that the PX282 driver is common anode type device!!! It is possible to connect lamps with 4-wires cable with a common + only!

R   R   R

21. DIMENSIONS

22. TECHNICAL DATA

- DMX channels	512
- power supply	12 - 24 V DC
- current consumption	max. 18 A
- no-load current consumption	46 mA for 12 V DC
	32 mA for 24 V DC
- output channels number	3
- outputs load capacity	6 A / channel
- control accuracy	16 bit
- programmable scenes	1
- built-in programs	18
- output sockets	terminal block
- MASTER mode	YES
- weight	0,1 kg
- dimensions:	
- width	35 mm (2 DIN rail modules)
- heigth	90 mm
- depth	58 mm
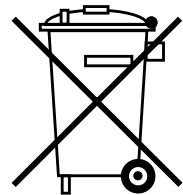
The PX282 version equipped in 6A outputs and supporting RDM protocol has been introduced to the production starting from 14260014 serial number.

PXM

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DECLARATION OF CONFORMITY
according to guide lines 2004/108/EC and 2006/95/EC

Name of producer: PXM Marek Żupnik sp. k.

Manufacturer's address: ul. Przemysłowa 12
30-701 Kraków, Poland

We declare that our product:

Product name: **LED Driver 3 x 6A OC**

Product code: **PX282**

complies with the following standards:

LVD: **PN-EN 61347-2-13:2008**
EMC: **PN-EN 61000-6-1:2008**
                      PN-EN 61000-6-3:2008

Additional information: The DMX-512 output must be shielded and the shielding must be connected to the ground responding to the DMX connectors.

PXM

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Kraków, 15.07.2014

mgr inż. Marek Żupnik.