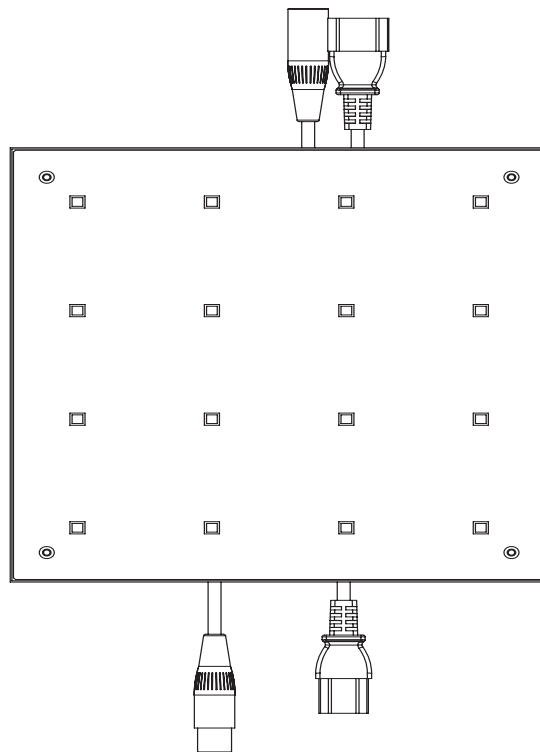


eurolite®

BEDIENUNGSANLEITUNG USER MANUAL

LED Pixel Panel 16 DMX



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USER MANUAL

eurolite[®]

LED Pixel Panel 16 DMX



CAUTION!

Keep this device away from rain and moisture!
Never open the housing!

For your own safety, please read this user manual carefully before you initially start-up.

Every person involved with the installation, operation and maintenance of this device has to

- be qualified
- follow the instructions of this manual
- consider this manual to be part of the total product
- keep this manual for the entire service life of the product
- pass this manual on to every further owner or user of the product
- download the latest version of the user manual from the Internet

INTRODUCTION

Thank you for having chosen a EUROLITE LED Pixel Panel 16 DMX. If you follow the instructions given in this manual, we are sure that you will enjoy this device for a long period of time.

Unpack your LED Pixel Panel 16 DMX.

SAFETY INSTRUCTIONS



CAUTION!

Be careful with your operations. With a dangerous voltage you can suffer a dangerous electric shock when touching the wires!

This device has left our premises in absolutely perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual.



Important:

Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.

If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.

Please make sure that there are no obvious transport damages. Should you notice any damages on the A/C connection cable or on the casing, do not take the device into operation and immediately consult your local dealer.

This device falls under protection-class I. The power plug must only be plugged into a protection class I outlet. The voltage and frequency must exactly be the same as stated on the device. Wrong voltages or power outlets can lead to the destruction of the device and to mortal electrical shock.

Always plug in the power plug last. The power plug must always be inserted without force. Make sure that the plug is tightly connected with the outlet.

Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution! Never touch them with wet hands, as this could lead to mortal electrical shock.

Never modify, bend, strain mechanically, put pressure on, pull or heat up the power cord. Never operate next to sources of heat or cold. Disregard can lead to power cord damages, fire or mortal electrical shock.

The cable insert or the female part in the device must never be strained. There must always be sufficient cable to the device. Otherwise, the cable may be damaged which may lead to mortal damage.

Make sure that the power-cord is never crimped or damaged by sharp edges. Check the device and the power-cord from time to time.

If extension cords are used, make sure that the core diameter is sufficient for the required power consumption of the device. All warnings concerning the power cords are also valid for possible extension cords.

Always disconnect from the mains, when the device is not in use or before cleaning it. Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord. Otherwise, the cable or plug can be damaged leading to mortal electrical shock. If the power plug or the power switch is not accessible, the device must be disconnected via the mains.

If the power plug or the device is dusty, the device must be taken out of operation, disconnected and then be cleaned with a dry cloth. Dust can reduce the insulation which may lead to mortal electrical shock. More severe dirt in and at the device should only be removed by a specialist.

There must never enter any liquid into power outlets, extension cords or any holes in the housing of the device. If you suppose that also a minimal amount of liquid may have entered the device, it must immediately be disconnected. This is also valid, if the device was exposed to high humidity. Also if the device is still running, the device must be checked by a specialist if the liquid has reduced any insulation. Reduced insulation can cause mortal electrical shock.

There must never be any objects entering into the device. This is especially valid for metal parts. If any metal parts like staples or coarse metal chips enter into the device, the device must be taken out of operation and disconnected immediately. Malfunction or short-circuits caused by metal parts may cause mortal injuries.



HEALTH HAZARD!

Never look directly into the light source, as sensitive persons may suffer an epileptic shock (especially meant for epileptics)!

Keep away children and amateurs!

Never leave this device running unattended.

OPERATING DETERMINATIONS

This device is an LED panel for creating decorative effects. This product is allowed to be operated with an alternating voltage of 90 - 240 V, 50/60 Hz and was designed for indoor use only.

This device is designed for professional use, e.g. on stages, in discotheques, theatres etc.

Lighting effects are not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.

Do not shake the device. Avoid brute force when installing or operating the device.

When choosing the installation spot, please make sure that the device is not exposed to extreme heat, moisture or dust. There should not be any cables lying around. You endanger your own and the safety of others!

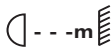
This device must never be operated or stockpiled in surroundings where splash water, rain, moisture or fog may harm the device. Moisture or very high humidity can reduce the insulation and lead to mortal electrical shocks. When using smoke machines, make sure that the device is never exposed to the direct smoke jet and is installed in a distance of 0.5 meters between smoke machine and device. The room must only be saturated with an amount of smoke that the visibility will always be more than 10 meters.

The ambient temperature must always be between -5°C and $+45^{\circ}\text{C}$. Keep away from direct insulation (particularly in cars) and heaters.

The relative humidity must not exceed 50 % with an ambient temperature of 45°C .

This device must only be operated in an altitude between -20 and 2000 m over NN.

Never use the device during thunderstorms. Over voltage could destroy the device. Always disconnect the device during thunderstorms.

The symbol  determines the minimum distance from lighted objects. The minimum distance between light-output and the illuminated surface must be more than 0.1 meters.

This device is only allowed for an installation via the mounting bracket. In order to safeguard sufficient ventilation, leave 50 cm of free space around the device.

The housing must never touch surrounding surfaces or objects.

Make sure that the area below the installation place is blocked when rigging, derigging or servicing the fixture.

Always fix the fixture with an appropriate safety bond.

The maximum ambient temperature $T_a = 45^{\circ}\text{C}$ must never be exceeded.

Operate the device only after having become familiarized with its functions. Do not permit operation by persons not qualified for operating the device. Most damages are the result of unprofessional operation!

Never use solvents or aggressive detergents in order to clean the device! Rather use a soft and damp cloth.

Please use the original packaging if the device is to be transported. Make sure that you pack the device in the original state.

Please consider that unauthorized modifications on the device are forbidden due to safety reasons!

Never remove the serial barcode from the device as this would make the guarantee void.

If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to dangers like short-circuit, burns, electric shock, crash etc.

DESCRIPTION OF THE DEVICE

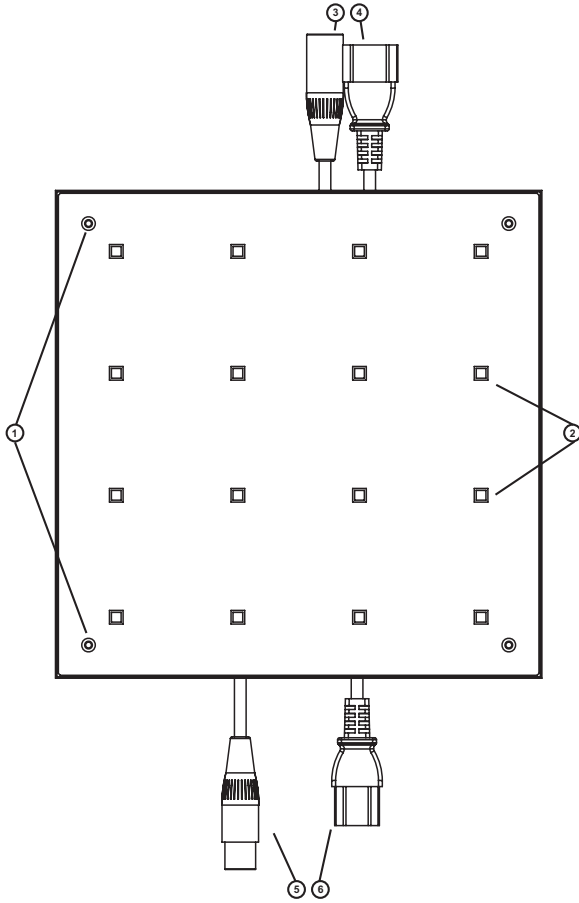
Features...

DMX-controllable pixel panel with Tricolor LEDs

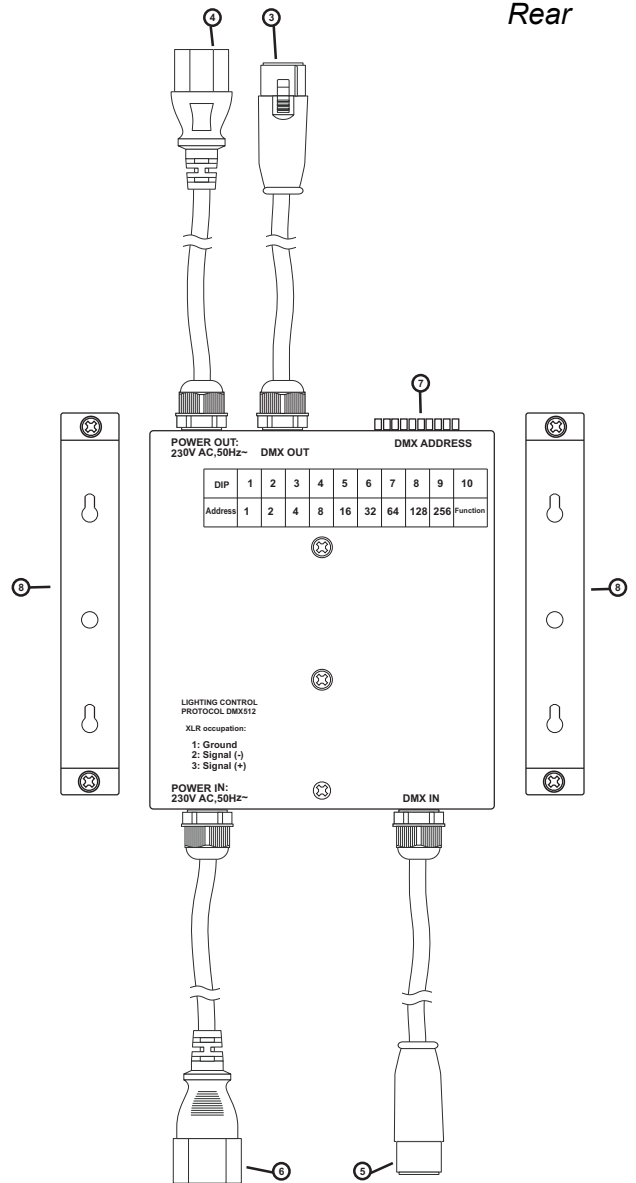
- Operable in stand-alone mode with Master/Slave function or via DMX interface
- DMX512 control possible via any commercial DMX controller (occupies 48 channels)
- Sound-control via built-in microphone
- Speed of the 22 internal programs and color change in Auto mode adjustable via DIP switches
- Each of the 16 Tricolor LEDs can be controlled individually
- Through the close chip placement of the multichip technology, an exquisite color mix even with short distances to the illuminated surface is provided
- Perfect solution as decorative lighting for shops, display windows, hotels, bars, clubs or interior furnishings
- Installation on a wall or on a truss system possible
- Create sensational light effect walls by connecting several LED panels
- Feed-through output allows to power up to 8 devices
- Switch-mode power supply for operation between 90 and 240 Volts
- Connection via IEC power cord with safety-plug (not included in delivery)

Overview

Front



Rear



1. Fixation screws of the cover plate
2. Individually controlable tricolor LEDs
3. DMX OUT
4. Power OUT
5. DMX IN
6. Power IN
7. DIP-switches
8. Mounting brackets for fixed installation or mounting on a trussing system

RIGGING

Fixed installation or mounting on a trussing system possible.

Note: This device is designed for vertical connections.

Overhead rigging



DANGER TO LIFE!

Please consider the EN 60598-2-17 and the respective national standards during the installation!
The installation must only be carried out by an authorized dealer!

The installation of the device has to be built and constructed in a way that it can hold 10 times the weight for 1 hour without any harming deformation.

The installation must always be secured with a secondary safety attachment, e.g. an appropriate catch net. This secondary safety attachment must be constructed in a way that no part of the installation can fall down if the main attachment fails.

When rigging, derigging or servicing the fixture staying in the area below the installation place, on bridges, under high working places and other endangered areas is forbidden.

The operator has to make sure that safety-relating and machine-technical installations are approved by an expert before taking into operation for the first time and after changes before taking into operation another time.

The operator has to make sure that safety-relating and machine-technical installations are approved by an expert after every four year in the course of an acceptance test.

The operator has to make sure that safety-relating and machine-technical installations are approved by a skilled person once a year.

Procedure:

The device should be installed outside areas where persons may walk by or be seated.

IMPORTANT! OVERHEAD RIGGING REQUIRES EXTENSIVE EXPERIENCE, including (but not limited to) calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the device. If you lack these qualifications, do not attempt the installation yourself, but instead use a professional structural rigger. Improper installation can result in bodily injury and/or damage to property.

The device has to be installed out of the reach of people.

If the device shall be lowered from the ceiling or high joists, professional trussing systems have to be used. The device must never be fixed swinging freely in the room.

Caution: Devices may cause severe injuries when crashing down! If you have doubts concerning the safety of a possible installation, do NOT install the device!

Before rigging make sure that the installation area can hold a minimum point load of 10 times the device's weight.



DANGER OF FIRE!

When installing the device, make sure there is no highly-inflammable material (decoration articles, etc.) within a distance of min. 0.5 m.

Mount the device with both mounting-brackets to your trussing system using appropriate clamps.

For overhead use, always install an appropriate safety bond.

You must only use safety bonds and quick links complying with DIN 56927, shackles complying with DIN EN 1677-1 and BGV C1 carabines. The safety bonds, quick links, shackles and the carabines must be sufficiently dimensioned and used correctly in accordance with the latest industrial safety regulations (e. g. BGV C1, BGI 810-3).

Please note: for overhead rigging in public or industrial areas, a series of safety instructions have to be followed that this manual can only give in part. The operator must therefore inform himself on the current safety instructions and consider them.

The manufacturer cannot be made liable for damages caused by incorrect installations or insufficient safety precautions!

Lead the safety bond through the mounting-bracket of the device and over the trussing system or a safe fixation spot. Insert the end in the quick link and tighten the safety screw.

The maximum drop distance must never exceed 20 cm.

A safety bond which already held the strain of a crash or which is defective must not be used again.



DANGER TO LIFE!

Before taking into operation for the first time, the installation has to be approved by an expert!

Fixed Installation

Before attaching the device, make sure that the installation area can hold a minimum point load of 10 times the device's weight.

The device must only be installed absolutely planar at a vibration-free, oscillation-free and fire-resistant location. Make sure that the device is installed absolutely planar by using a water-level.

The device must be installed out of the reach of people.

The device must always be installed via all fixation holes. Do only use appropriate screws and make sure that the screws are properly connected with the ground.

The durability of the installation depends very much on the material used at the installation area (building material) such as wood, concrete, gas concrete, brick etc. This is why the fixing material must be chosen to suit the wall material. Always ask a specialist for the correct plug/screw combination indicating the maximum load and the building material.

Procedure:

Step 1: Unscrew the four fixation screws in the corners on the front of the cover plate and remove them with the cover plate.

Step 2: In the device you will see four 20mm holes for installation, which go through to the mounting brackets.

Step 3: Hold the device with the mounting brackets onto the location where the device is to be installed.

Step 4: Through the four 20mm holes, mark the boreholes with a pen or a suitable tool.

Step 5: Drill the holes.

Step 6: Hold the device with the mounting brackets in the desired position and tighten the fixation screws.

Step 7: Replace the cover plate and tighten the screws.



Do not operate this device with opened cover plate!

DMX512 connection / connection between fixtures



The wires must not come into contact with each other, otherwise the devices will not work at all, or will not work properly.



Please note, the starting address depends upon which controller is being used.



Only use a DMX-cable and 3-pin XLR-plugs and connectors in order to connect the controller with the fixture or one fixture with another.

Occupation of the XLR connection:



If you are using controllers with this occupation, you can connect the DMX output of the controller directly with the DMX input of the first device in the DMX chain. If you wish to connect DMX controllers with other XLR outputs, you need to use adapter cables.

Building a serial DMX chain:

Connect the DMX output of the first device in the DMX chain with the DMX input of the next device. Always connect one output with the input of the next device until all devices are connected.

Caution: At the last fixture, the DMX-cable has to be terminated. Plug the terminator with a 120 Ω resistor between Signal (-) and Signal (+) in the DMX-output of the last fixture.

Note: This device is designed for vertical connections.

Master/Slave operation

The master/slave operation enables that several devices can be synchronized and controlled by one master device.

On the rear of the device you can find a 3-pin XLR connector for DMX-input and a 3-pin XLR plug for DMX-output, which can be used for connecting several devices.


Choose the device which is to control the effects. This device then works as master device and controls all other slave devices, which are to be connected to the master device via a DMX-cable. Connect the OUT jack with the IN plug of the next device.

Set DIP Switch 10 to 0 in order to determine the Master device, then choose the desired mode. (see OPERATION)

Connection with the mains

Connect the device to the mains via optional power supply cable.

The occupation of the connection cables is as follows:

Cable	Pin	International
Brown	Live	L
Blue	Neutral	N
Yellow/Green	Earth	

The earth has to be connected!

If the device will be directly connected with the local power supply network, a disconnection switch with a minimum opening of 3 mm at every pole has to be included in the permanent electrical installation.

The device must only be connected with an electric installation carried out in compliance with the IEC-standards. The electric installation must be equipped with a Residual Current Device (RCD) with a maximum fault current of 30 mA.

Lighting effects must not be connected to dimming-packs.

Connection between devices

There is a power output connector and a power input plug on the rear panel. Connect one output with the input of the next fixture until all fixtures are connected.

Please note: A maximum of 8 LED Pixel Panels may be linked together. After every 8 LED Pixel Panels, the fixtures must have a renewed connection with the power mains.

OPERATION

The device has two operating modes. It can be operated via DIP switches in Stand Alone mode or it can be run via a DMX controller in DMX-controlled mode.

After you connected the LED Panel to the mains, it starts running.

OPERATION VIA DIP SWITCHES

Function:	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6	Dip 7	Dip 8	Dip 9	Dip 10	Mode:
<u>Color change and Color fade</u> Speed via Dip6 - Dip8	0	0	0	0	0	X	X	X	0	0	Auto (Master)
<u>Program Selection</u> via Dip1 - Dip5 Speed via Dip6 - Dip8	X	X	X	X	X	X	X	X	0	0	22 Internal Programs
<u>Sound controlled color change</u>	X	X	X	X	X	X	X	X	1	0	Sound-control (Master)
<u>See DMX Protocol</u>	1	X	X	X	X	X	X	X	X	1	DMX
1. DMX address is 1 in DMX Mode 2. Slave device in M/S Modus	1	0	0	0	0	0	0	0	0	1	Other
<u>Black Out</u>	0	0	0	0	0	0	0	0	0	1	

1 = on
0 = off
X = variable

Auto Mode

In order to select **Color change and Color fade**, set DIP switch 9 and 10 to OFF. Set DIP switches 1 – 5 to OFF as well.

Speed can be adjusted via DIP switches 6 - 8.

Internal Programs Mode

In order to select from the 22 **Internal Programs**, set DIP switch 9 and 10 to OFF.

Programs can be selected via DIP switches 1-5 (see following table).

Speed can be adjusted via DIP switches 6 - 8.

Sound Control

In order to select **Sound controlled color change**, set DIP Switch 9 to ON and DIP Switch 10 to OFF.

Blackout

In order to select **Blackout**, set DIP switch 10 to ON and DIP switch 1 to 9 to OFF.

Program Selection

Internal Programs	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5
Red	1	0	0	0	0
Green	0	1	0	0	0
Yellow	1	1	0	0	0
Blue	0	0	1	0	0
Violet	1	0	1	0	0
Cyan	0	1	1	0	0
White	1	1	1	0	0
Red-green-red-green	0	0	0	1	0
Red-blue-red-blue	1	0	0	1	0
Green-green-violet-violet	0	1	0	1	0
Red-red-blue-blue	1	1	0	1	0
White-off-white-off	0	0	1	1	0
Red-off-red-off	1	0	1	1	0
Red-red-blue-blue	0	1	1	1	0
Green-green-violet-violet	1	1	1	1	0
7-Color fade all LEDs simultaneously	0	0	0	0	1
7-Color fade each LED individually	1	0	0	0	1
7-Color flow in one direction	0	1	0	0	1
7-Color flow in the opposite direction	1	1	0	0	1
7-Color flow in both directions	0	0	1	0	1
7-Color Chaser in one direction	1	0	1	0	1
7-Color Chaser in the opposite direction	0	1	1	0	1

1 = on
0 = off

DMX-CONTROLLED OPERATION

You can control the LED Panels individually via your DMX-controller. Every DMX-channel has a different occupation with different features.

For DMX-controlled operation set DIP switches 1 and 10 to ON. (This setting is also used to determine the Slave device).

Addressing the device

Each device occupies 48 channels. To ensure that the control signals are properly directed to each device, the device requires addressing. This is to be adjusted for every single device by changing the DIP-switches.

The starting address is defined as the first channel from which the device will respond to the controller.

Please make sure that you do not have any overlapping channels in order to control each device correctly and independently from any other fixture on the DMX data link. If two, three or more devices are addressed similarly, they will work similarly.

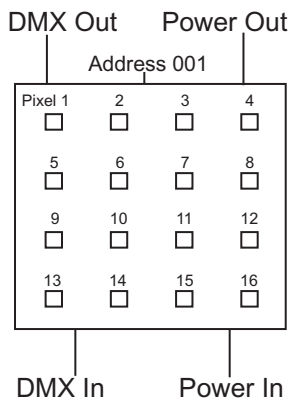
Controlling:

After having addressed all LED Pixel Panels, you may now start operating these via your lighting controller.

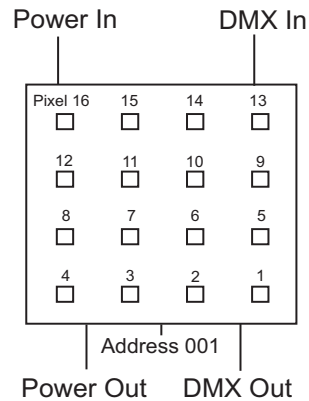
The LEDs of the device are separated into 16 pixels on the main panel (see graphic), which can be individually controlled with the following DMX-protocol.

Depending upon the installation direction, the Pixel order is as follows:

Pixel order 1



Pixel order 2



Note: This device is designed for vertical connections.

DMX protocol

Channel	Attribute of the LED/Pixel Number:
CH 1	R1
CH 2	G1
CH 3	B1

CH 4	R2
CH 5	G2
CH 6	B2

CH 7	R3
CH 8	G3
CH 9	B3

CH 10	R4
CH 11	G4
CH 12	B4

CH 13	R5
CH 14	G5
CH 15	B5

CH 16	R6
CH 17	G6
CH 18	B6

CH 19	R7
CH 20	G7
CH 21	B7

CH 22	R8
CH 23	G8
CH 24	B8

CH 25	R9
CH 26	G9
CH 27	B9

CH 28	R10
CH 29	G10
CH 30	B10

CH 31	R11
CH 32	G11
CH 33	B11

CH 34	R12
CH 35	G12
CH 36	B12

CH 37	R13
CH 38	G13
CH 39	B13

CH 40	R14
CH 41	G14
CH 42	B14

CH 43	R15
CH 44	G15
CH 45	B15

CH 46	R16
CH 47	G16
CH 48	B16

CLEANING AND MAINTENANCE



DANGER TO LIFE!

Disconnect from mains before starting maintenance operation!

We recommend a frequent cleaning of the device. Please use a soft lint-free and moistened cloth. Never use alcohol or solvents!

There are no serviceable parts inside the device. Maintenance and service operations are only to be carried out by authorized dealers.

Should you need any spare parts, please use genuine parts.

If the power supply cable of this device becomes damaged, it has to be replaced by a special power supply cable available at your dealer.

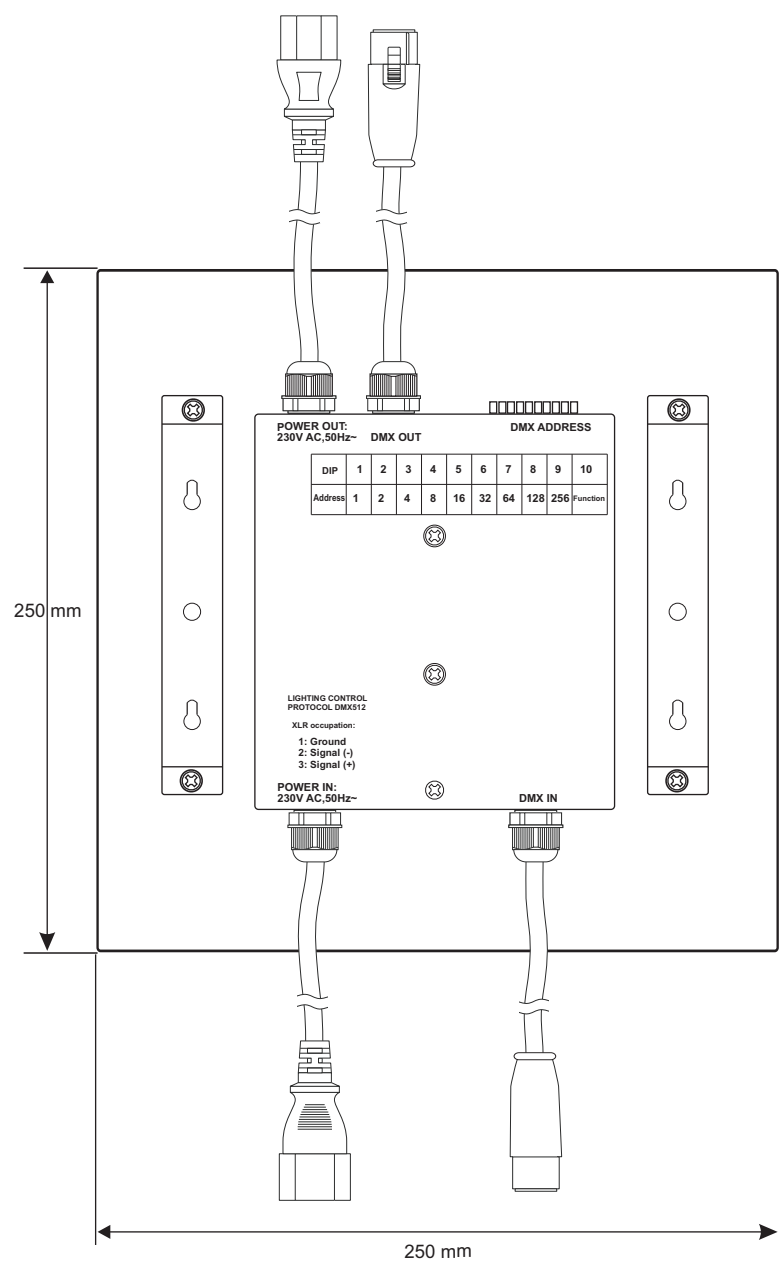
Should you have further questions, please contact your dealer.

TECHNICAL SPECIFICATIONS

Power supply:	90 - 240 V, 50/60 Hz ~
Power consumption:	17 W
Number of DMX channels:	48
DMX-512 connection:	3-pin XLR
Sound-control:	via built-in microphone
Maximum ambient temperature T_a :	45° C
Maximum housing temperature T_c (steady state):	50° C
Min. distance from flammable surfaces:	0.5 m
Min. distance to lighted object:	0.1 m
LED Type:	Tricolor, SMD 5050
Number of LEDs:	16
Beam angle:	120°
Dimensions (LxWxH):	250 x 250 x 50 mm
Weight:	1.5 kg

Accessories:	No.:
IEC cable 0.9m 3x0,75mm	3023520M
IEC expansion cable, 3m	30235201
Cable MC-30, 3m, black,XLR m/f,balanced	3022047N
Cover Pixel Panel 16 white	E1133521

English



Please note: All information is subject to change without prior notice. 15.10.2015 ©