



BARIO LED

User's Manual

Profile LED spot with manual zoom and DMX control

PRF-0501935D-WW
PRF-0501935D-NW
PRF-0501935D-W

WARNINGS

This instruction manual contains important information about the installation and use of the projector. Please read and follow these instructions carefully.

The security of this device is guaranteed only with the proper use of the following instructions, therefore they must be kept carefully.

Never install the device in locations easily accessible by people who ignore the existence of this user's manual and safety instructions.

Disconnect the unit from any power supply before attempting any operation in contact or inside the unit, and when not in use.

It is essential that each device is correctly earthed and that electrical installation conforms to all relevant standards. Never supply the unit without the earth link.

Prior to connect the unit to the mains supply, check the output voltage fits technical requirements on the label.

Never let power cord come into contact with other cables.

Never touch electrical contacts, either directly with your fingers, or indirectly by means of sharp or metal objects.

Make sure that cables cannot cause trip hazard.

Do not attempt to dismantle and modify the unit.

Due to high technological level of this unit, service maintenance should be performed by specialised operators. Please contact your Arena Luci dealer for any issue.

Always ensure that the structure to which you are attaching the unit is secure and is able to support the weight of each unit.

Always make sure you are using a safety chain connected to the unit.

Do not allow contact with water or any other fluids, or

metallic objects (IP 20).

Do not install the projector in areas of high humidity. The unit is intended only for indoor purposes.

Avoid installing the unit close to heat sources.

Never lean the power cord on hot unit surfaces.

Allowed to be mounted directly on inflammable surfaces.

Keep a minimum distance of 3m between the device and the illuminated surfaces.

Avoid direct exposure to the light from the lamp. The light luminance is harmful to the eye.

Install the unit where it can be easily aerated.

Avoid obstruction of in/out vents.

The lighting apparatus must be used only with its protective shield.

The protective grill, lenses or ultraviolet filter must be changed if they are visibly damaged to the point at which their effectiveness is diminished, for example by becoming cracked or deeply scratched.

To ensure the reliability of the projector it should be kept clean. The lens and filters should also be regularly cleaned (at least once every six months) to maintain an optimum light output.

Do not use any solvent based cleaning agents. Use only a soft, dry anti-static cloth.

The installation of LED modules (including power supplies) should be done according to current technical rules and regulations. The installation should be performed only by a qualified operator.

Avoid contact with either corrosive agents or humidity and moisture on delicate elements: damages from corrosion are not refunded as component defects.

Please note that as part of Arena Luci's ongoing commitment to continuous product development, specifications are subject to change in the course of product improvement without notice. Arena Luci is not responsible for damages resulting from improper or different use than expected.

BEFORE STARTING

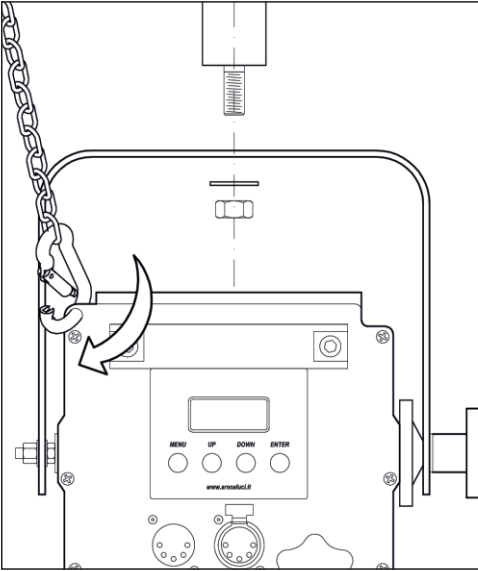
Remove the product from the shipping carton, checking that all the components supplied are present in the box. Refer to the following packing list to check which components must be present in the packaging. If any component is missing or damaged, contact your Arena Luci dealer immediately.

n° 1 profile spot BARIO LED DMX

n° 1 filter frame

n° 1 couple of Canon XLR 5 pole connectors (male / female)

Before starting the installation of your product make sure that there are no evident damages caused by transportation. In the event that the projector is damaged, do not plug it in and do not attempt to use it until you contacted your Arena Luci dealer for assistance.

INSTALLING THE PROJECTOR

Attach the projector by means of the central hole diameter 11mm on the fork; for suspended applications, you must also fix the projector with a safety chain securing it to the support structure and the ring on the rear plate, besides the handle.

Loosen the side knob to adjust the tilt of the projector (+50° / -50°); once positioned, tighten the knob firmly. For a mounting on tripod, the projector should be installed upside down.

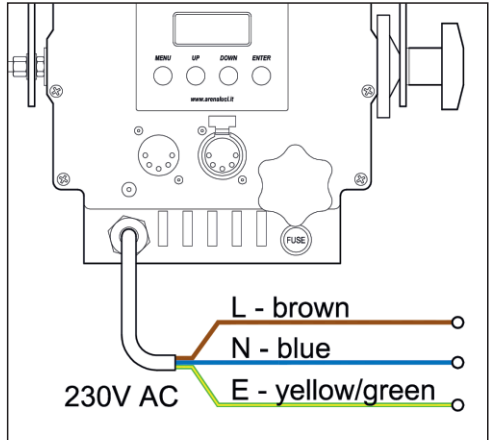
The projector must be fixed on a suitable support which remains stable during operation. Always make sure the stand or structure to which you are setting the projector is secure and is able to bear the weight of each unit.

POWER SUPPLY - MAINS

Disconnect the mains voltage from the system.

Connect the power cord to the mains supply, paying attention to the voltage and frequency indicated on the label.

Respect the L-N-E polarity indicated on the terminals (color brown = L, blue = N, yellow / green = E).



It is essential that each projector is correctly earthed and that electrical installation conforms to all the standards of good practice and safety regulations.

The projector does not have built-in on/off switch and turns on immediately when power is supplied.

It is recommended that the projector is connected to the mains via a proper switch, so that it can be turned on and off individually.

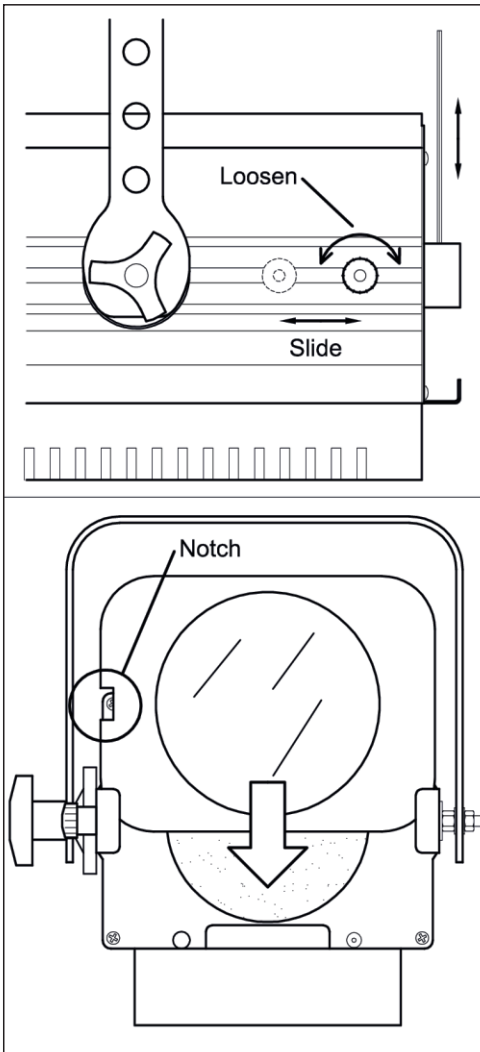
Caution

It is important that the ground connection of each projector is run according to the rules in force. The power absorption of the projector is 55W.

FILTER FRAME

The filter frame fits in the front of the projector. Undo the small retaining knob on the right side of the device and slide it backward to release the filter frame. Now it is possible to extract and insert the filter holder.

Open the frame and insert the colored gel and then put it back in place on the projector. Pay attention to keep the notch on the frame to the right side of the projector, to match the filter holder. Slide forward the knob and fasten it to lock the filter frame.

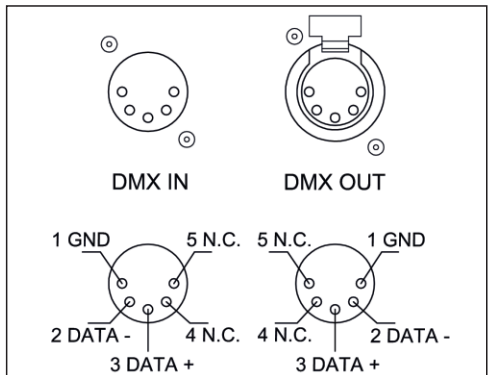


MANUAL ZOOM ADJUSTMENT

Use the two knobs underneath the projector to manually adjust the aperture of the light beam to suit any type of installation. The beam spread can be adjusted from 19° (handles apart) to 35° (handles together).

CONNECTING CONTROL SIGNALS

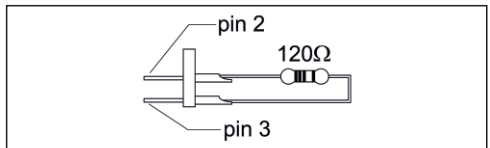
The projector, in order to be remotely controlled, requires a digital signal DMX 512 (1990). The connection between controller and projector and between projector and projector must be made with two-core shielded cable with a section of at least 0.5mm² and connectors model Canon XLR 5-pin plug and socket (supplied). In carrying out the wiring of the connectors it is important that the signal wires do not make contact with each other and do not touch the casing of the plug. The casing of the plug must not be in contact with other objects possible sources of disturbance. The three terminals have the numbering referred to the poles of the XLR connectors normally used for the connection of the DMX: pin 1 = GND or braided screen, pin 2 = DATA- or cold pole, pin 3 = DATA+ or hot pole. Pin 4 and pin 5 are not connected.



Connect the signal coming from the controller to the DMX socket of the projector labeled DMX IN. Continue connecting the DMX OUT socket to the DMX IN socket of the next projector.

Termination of the DMX signal

For installations where the cable signal must travel long distances or where there are electrical noises, for example a discotheque, it is recommended to use a DMX terminator. The DMX terminator is simply an XLR connector with a resistance of 120Ω (Ohm) between pins 2 and 3. The connector is then plugged into the DMX OUT socket on the last projector in the chain.



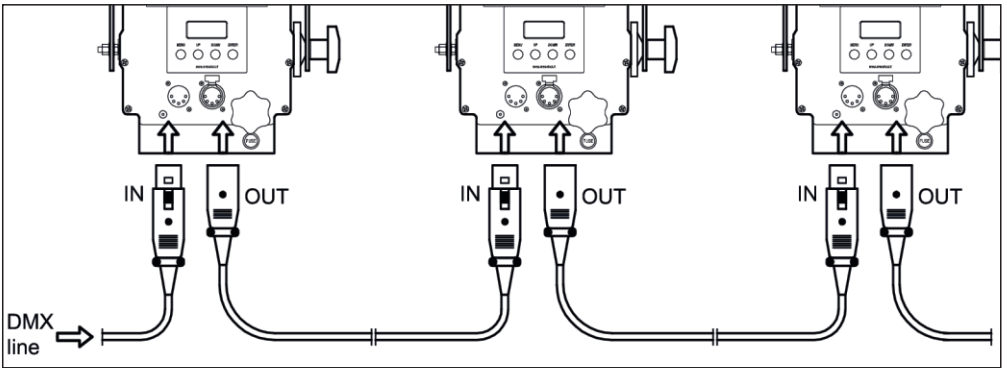
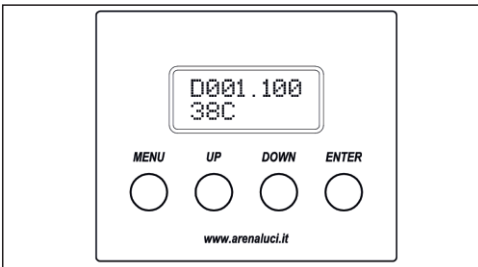


Fig. 01 - Wiring diagram for DMX signal remote control

PROJECTOR ADDRESSES



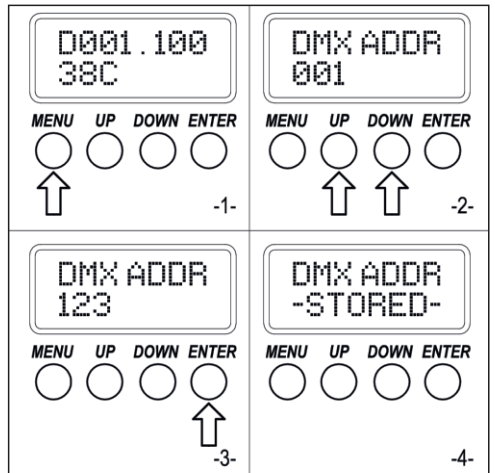
The projector, to be remotely controlled, requires 2 DMX channels. Each projector must be given a digital start address number so that the correct projector responds to the correct control signals. This digital start address is the channel number from which the projector starts to "listen" to the digital control information being sent out from the controller. This digital encoding must be done on each projector.

The start address of the coding is assigned by setting the desired value using the display interface on the rear panel. Press the MENU button on the keypad, the display shows the word DMX ADDR and the DMX address that is currently set for the projector; use the UP or DOWN buttons to select the desired starting address (ie. projector 1 address 1, projector 2 address 3, projector 3 address 5, etc.); for fast forward press and hold the button.

You can quickly jump to the minimum value (001) or the maximum value (511). To set the minimum, press UP while pressing DOWN; to set the maximum, press DOWN while pressing UP.

Press ENTER to store (the display shows -STORED-), or press MENU to return.

The number of selectable base addresses from the electronic board ranges from 1 to 511.



OPERATION

After supplying the device, the software performs a reset; at the end of the electronics reset routine, the display shows the idle state.

In the idle state you can get many informations:

D001.100
38°C

D001 is the base address of the projector.

. (blinking dot) indicates the presence of a valid DMX signal.

100 is the master dimmer level (expressed in %).

38°C is the internal temperature of projector, in °C.

In the absence of DMX signal (XLR connector unplugged), the blinking dot is off. After 60 seconds of inactivity, the display backlight shuts off. Press any key to switch it on again.

Set the base address of the projector as seen before

and connect the signal from DMX controller to control the various functions of the projector.

When the projector is receiving a DMX frame, if the signal is lost (or the cable is disconnected) the projector holds the current levels of DMX channels and the LED source is still driven with the levels sent in the last valid DMX frame.

Then, if the projector is turned off and on, and it is not connected to a valid DMX signal, the light intensity is brought to 0% (unless you changed the option menu "manual" prior to switch off, see later in option settings).

Should the temperature of the LED board increase over 85°C, the electronic management automatically reduces the light intensity in order to bring the temperature back to acceptable values.

In addition, the brightness of the light is brought to zero when the temperature on the LED board rises above 100°C.

OPTION MENU

To activate the display press any button. Then to access the options of the projector press the MENU button. The display shows the name of the option starting from option 1, the base DMX address. Press again the MENU button to scroll through the list of options. Adjust the value with UP or DOWN buttons, then confirm your choice with ENTER (the display shows -STORED-).

If you don't press ENTER, all your changes will be lost: after 20 seconds of inactivity inside the options menu, the display returns back to the idle state.

Option 1 - DMX address

When the display shows DMX ADDR with the current DMX address, press the UP or DOWN buttons as many times as required to display the number of the desired channel. To fast forward press and hold the button. Remember that you can quickly jump to the minimum value (001) or the maximum possible value. To set the minimum, press UP while pressing DOWN; to set the maximum, press DOWN while pressing UP. Press ENTER to store or MENU to go back.

Option 2 - Manual level settings

Manual settings are only effective when there is no DMX signal connected, instead they have no effect when the DMX signal is present (message -ERROR- shown).

When the display shows MANUAL, in the second row it shows the channel number (starting from 1) and the current manually set level in DMX units, for example CH1: 255.

The channel number is blinking, while the channel level is steady. Use the UP or DOWN button to switch to the desired channel (1 to 2), then press ENTER: now the channel number is steady and the channel level is

blinking, indicating that you can modify its value. Use UP or DOWN to adjust the channel level; for fast forward press and hold the button. Then press MENU to return to the channel selection.

Remember that you can quickly jump to the minimum value (001) or the maximum value (255). To set the minimum, press UP while pressing DOWN; to set the maximum, press DOWN while pressing UP.

Repeat the above steps until you finish your manual settings. Finally press ENTER to save your job, the display shows -STORED-.

The values are stored into the permanent memory, and will be reproduced until you connect the DMX signal.

Note:

After you set the manual values, when the projector is turned off and on, and it is not connected to a valid DMX signal, the channels levels for ch.1, ch.2 are automatically recalled from memory and the LED source will behave accordingly.

If you connect a DMX signal and then remove it, the stored values become "disabled" and at the next ignition (without DMX) the manual values will be ignored; the light intensity is brought to 0%, while ch.2 is set to 0. In all cases, if you switch on the projector with a valid DMX signal connected, the manual settings are ignored.

Remember that if you don't press ENTER to save in memory, the manual settings will be lost and won't be recalled at the next power on.

Option 3 - Fan Mode

This function relates to the control of the LED cooling fan.

When the display shows FAN MODE, the second row shows the current operating mode and you can change it by pressing UP or DOWN button:

-MAX

The fan is always on at maximum speed.

-OFF-MAX

The fan is switched off until the temperature is below a minimum setpoint (50°C), then it starts blowing at minimum speed and gradually increases in speed as the temperature rises, reaching the maximum speed at 70°C.

-MIN-MAX

The fan is always on at minimum speed when the temperature is below a minimum setpoint (50°C), and gradually increases in speed as the temperature rises, reaching the maximum speed at 70°C.

Press ENTER to confirm (the display shows -STORED- for a while) or press MENU to quit.

Option 4 - Software Version

When the display shows SW REV. you can read in the second row the current software release installed on

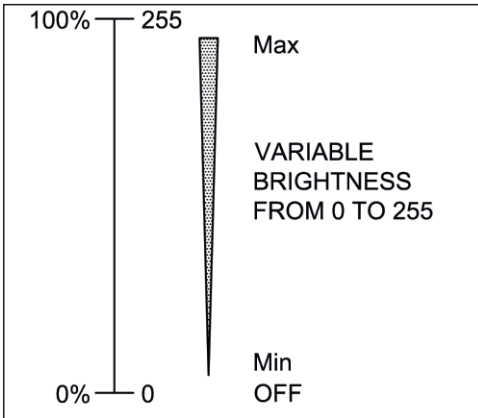
the projector.

Press MENU or wait 20 seconds to go back.

DMX CHANNEL FUNCTIONS

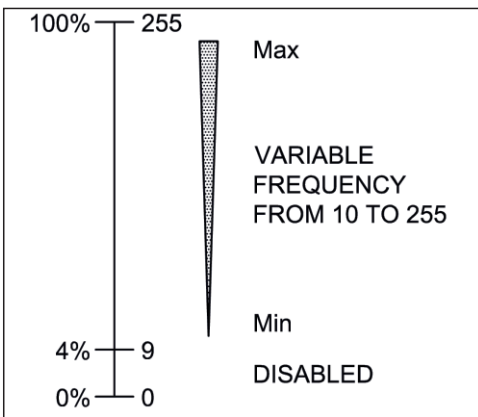
In the following diagrams you will find the control values in DMX units (0-255) for all 2 channels of the projector.

Channel 1 - Dimmer



The intensity of light is variable in a linear way from off to the maximum; in particular, for DMX value equal to 0 the LED source is off, for increasing intermediate values the brightness gradually increases, for value equal to 255 the LED source is on at its maximum intensity.

Channel 2 - Strobe



The projector is able to generate an electronic strobe effect, obtained by rapidly switching on and off the LED. The strobe is disabled for DMX values between 0 and 9, while for values between 10 and 255 the frequency of the flashes gradually increases.

RDM FUNCTIONS

The Remote Device Management Protocol (RDM) permits intelligent bi-directional communication between devices from multiple manufacturers. RDM permits a console or other controlling device to discover and then configure, monitor and manage intermediate and end-devices connected through a DMX512 network.

Responders and Controllers identify themselves with a 48-bit Unique ID (UID). The Unique ID (UID) consists of a 16-bit Manufacturer ID with a 32-bit Device ID.

The 32-bit device ID is unique throughout all products manufactured under a specific Manufacturer ID, to ensure that no two devices with the same UID will appear on the DMX512 network.

The recommended method for representing the UID in text is in hexadecimal format with a colon separating the Manufacturer ID and the Device ID.

An example of such would be:

mmmm:ddddddd

where *mmmm* is the Manufacturer ID in hexadecimal and *ddddddd* is the Device ID in hexadecimal.

Manufacturer ID for Arena Luci is:

0x00B0

Device ID for Arena Luci products consists of a 12-bit Product ID followed by a 20-bit Serial Number.

Product ID for Dali LED is:

0x047 for PRF-0501935D-WW

0x048 for PRF-0501935D-NW

0x049 for PRF-0501935D-W

The UID that would appear on RDM Controllers is then (e.g. 0x00001 is the Serial Number in hexadecimal):

00B0:04700001 for PRF-0501935D-WW

00B0:04800001 for PRF-0501935D-NW

00B0:04900001 for PRF-0501935D-W

RDM Parameter Messages

RDM Parameter Messages are sent to set configuration and get status information from the device.

Get/Set Identify Device - IDENTIFY_DEVICE

This parameter is used for the user to physically identify the device represented by the UID.

When a "Start Identify" is sent from the RDM controller to the projector, the projector will respond by strobing the light. To stop the strobing after detecting the unit, send "Stop Identify".

Get Device Info - DEVICE_INFO

This parameter is used to retrieve a variety of information about the device that is normally required by a controller.

- RDM Protocol Version:

This field contains the version number of the published RDM Standard supported by the device.

Bario LED returns *1.00*.

- Device Model ID:

This field identifies the Device Model ID of the Root Device or the Sub-Device.

Bario LED returns

00.47 for PRF-0501935D-WW

00.48 for PRF-0501935D-NW

00.49 for PRF-0501935D-W

- Product Category:

This field reports a Product Category based on the product's primary function.

Bario LED returns *Fixture Fixed* .

- Software Version ID:

This field indicates the Software Version ID for the device.

Bario LED returns

04.70.01.00 for PRF-0501935D-WW

04.80.01.00 for PRF-0501935D-NW

04.90.01.00 for PRF-0501935D-W.

- DMX512 Footprint:

This field specifies the DMX512 footprint (number of consecutive DMX512 slots required). This information can be used in conjunction with *DMX_START_ADDRESS* for auto-patching capabilities.

Bario LED returns *02* .

- DMX512 Personality:

This field specifies the current DMX512 Personality setting for the projector and also the total number of personalities available.

Bario LED returns *01/01* .

- DMX512 Start Address:

This field shows the current DMX512 Starting Address.

- Sub-Device Count:

This parameter is used to retrieve the number of Sub-Devices represented by the Root Device; a device may contain one or more sub-devices, all having a common set of parameters. An example of a device with sub-devices is a dimmer rack containing a number of dimmer module sub-devices.

Bario LED hasn't any sub-device.

- Sensor Count:

This field indicates the number of available sensors in a Root Device or Sub-Device.

Sensors will be addressed using other RDM sensor-related parameter messages.

Bario LED hasn't any addressable sensor.

Get/Set DMX512 Starting Address -

DMX_START_ADDRESS

This parameter is used to get or set the DMX512 start address. Use your RDM controller's commands to set the desired DMX address.

Get Software Version Label -

SOFTWARE_VERSION_LABEL

This parameter is used to get a descriptive ASCII text label for the device's operating software version. The

descriptive text returned by this parameter is intended for display to the user. The label may be up to 32 characters.

Bario LED returns *1.00* .

The Software Version ID field from the *DEVICE_INFO* parameter should be used for comparing devices from the same Manufacturer with the same Device Model ID to determine if they are running identical software versions.

Get/Set DMX512 Personality -

DMX_PERSONALITY

This parameter is used to set the projector's DMX512 Personality. Many devices such as moving lights have different DMX512 Personalities. Many RDM parameters may be affected by changing personality.

Bario LED has one personality:

Mode 1: 2 ch./02 .

Parameter *PERSONALITY_DESCRIPTION* contains the Personality Requested, the DMX512 Footprint for that Personality, along with up to 32 characters of description.

Bario LED returns:

Personality #01

Slot Required: 02

Descrip: Mode 1: 2ch .

Get Device Model Description -

DEVICE_MODEL_DESCRIPTION

This parameter provides a text description of up to 32 characters for the device model type. Bario LED returns:

Profile DMX and Manual zoom .

Get Manufacturer Label -

MANUFACTURER_LABEL

This parameter provides an ASCII text response with the Manufacturer name for the device of up to 32 characters.








Bario LED returns:

ARENA LUCI - ITALY .

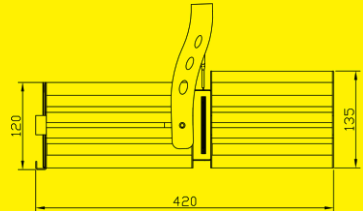
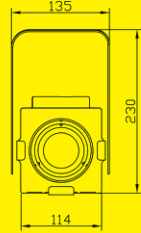
Get/Set Device Label - **DEVICE_LABEL**

This parameter provides a mean of setting a descriptive label of up to 32 characters for each device. This may be used for identifying a dimmer rack number or specifying the device's location. By default this field is empty.

TECHNICAL SPECIFICATION

| | | |
|--|--|---|
| V | Power supply | 230 V AC - 50 Hz |
| W | Power consumption | 55W max |
|  | Source | LED module, interchangeable |
| K | Colour Temperature | 3000 K (-WW) - 4000 K (-NW) - 5700 K (-W). CRI > 90 |
|  | Cooling | Heatsink with low noise axial fan, max 8dB. |
|  | Beam aperture | Manual zoom 19°+35° |
| DMX | Control | DMX 512, 2 control channels with RDM |
|  | Connection | Three poles power cord |
|  | Material | Aluminium and steel plate |
|  | Colour | Epoxy powder paint finish, black |
|  | Insulation class | I |
| KG | Weight | 4.8 kg (included filter frame) |
| SIZE | Dimensions | 420 x 114 x 135 mm (body) |
| IP | Protection | IP20 |
| Ta | Ambient Temperature | From -15°C to +40°C |
|  | Suitable to be fitted on normally inflammable surfaces | |

Applied standards **RoHS** **CE**



PRF-0501935D EN-R2 | 06/2019

WARRANTY CONDITIONS

The unit is guaranteed for 24 months from the date of purchase against defects in workmanship or materials that compose it.

This warranty does not cover faults due to incorrect or improper use of the device.

The warranty is immediately void if the unit has been tampered with or opened by unauthorized personnel.

The warranty provides, at the discretion of Arena Luci, repair or replacement of faulty equipment.

The serial number and model of the device are required to obtain information or assistance from the dealer. We invite you to transcribe them in time: for any request of information or services, this will result in a quick and effective operation.

CE RULES

The device meets the essential requirements of the Directives *LVD* 2014/35/UE, *EMC* 2014/30/UE, *RAEE* 2012/19/UE, *RoHS* 2011/65/UE, *Ecodesign*

2009/125/CE - reg. (UE) 1194/2012, *Energy label* 2010/30/UE - reg. (UE) 874/2012 - reg. (UE) 518/2014, *GPSD* 2001/95/CE.

Warnings

Disposal of Old Electrical & Electronic Equipment (applicable in the European Union and other European countries with separate collection systems).



The product shall not be treated as household waste but must be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is correctly disposed, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your city office, your household waste disposal service or your supplier.

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