QUARIUX
6x30W COB led bar

User Manual

Index

Introduction

Thank You for choosing a Sagitter products!

Please refer to the instructions and warnings contained in this user manual, please retain it for future reference.

This manual contains information about the installation and use of the device.

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PACKAGING, SHIPPING AND COMPLAINT

- This unit package has been submitted to ISTA 1A integrity tests. We suggest you control the unit conditions immediately after unpacking it.
- If any damage is found, immediately advise the dealer. Keep all unit packaging parts to allow inspection.
- Proel is not responsible for any damage that occurs during shipment.
- Products are sold "delivered ex warehouse" and shipment is at charge and risk of the buyer.
- Possible damages to unit should be immediately notified to forwarder. Each complaint for manumitted package should be done within eight days from product receipt.

WARRANTY AND PRODUCTS RETURN

- Proel products have operating warranty and comply their specifications, as stated by manufacturer.
- Proel warrants all materials, workmanship and proper operation of this product for a period of two years from the original date of purchase. If any defects are found in the materials or workmanship or if the product fails to function properly during the applicable warranty period, the owner should inform about these defects the dealer or the distributor, providing receipt or invoice of date of purchase and defect detailed description. This warranty does not extend to damage resulting from improper installation, misuse, neglect or abuse. Proel S.p.A. will verify damage on returned units, and when the unit has been properly used and warranty is still valid, then the unit will be replaced or repaired. Proel S.p.A. is not responsible for any "direct damage" or "indirect damage" caused by product defectiveness.

MAINTENANCE AND DISCLAIMER

- Clean with not scraping sponge or cloth.
- Proel S.p.A. reserves the right to change these specifications at any time without notice.
- Proel S.p.A. declines any liability for damages to objects or persons caused by lack of maintenance, improper use, installation not performed with safety precautions and at the state of the art.

SAGITTER

WHAT'S IN THE BOX

N. 1   QUARIUX 6x30W COB led bar.

N. 1   QUARIUX Support

N. 2   M8x35 screw with nut.

N. 1   Amphenol ECO-MATE C01630F006-10012 Right angled female cable connector.

N. 1   QUARIUX User Manual.

Warnings & Safety Instructions

DISPOSAL OF OLD ELECTRICAL & ELECTRONIC EQUIPMENT

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the enviroment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources. Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling. Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

The lightning symbol with arrow in an equilateral triangle intends to alert the user to the presence of not insulated "dangerous voltages" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point symbol within an equilateral triangle intends to alert the user to the presence of important instructions for use and maintenance on the accompanying documents of the product.

The "F" inside an equilateral reversed triangle means that the product is suitable for mounting on normally flammable surfaces.

GENERAL SAFETY INSTRUCTIONS

- Before using this product read carefully the following safety instructions.
- Read the manual entirely and preserve it for future reference.
- When using any electric product, basic precautions should always be taken, including the following:
- The product should be connected to a power supply only of the type described on the operating instructions or as marked on the product.
- This product is not suitable for household illumination.
- Do not modify the fixture or install accessories and upgrade kits that are not the Proel original ones.

INSTALLATION WARNINGS

People involved in the installation and maintenance of the device must:

- Be a qualified operator.

- Follow the instructions of this manual and the rules of a state of art installation in the theaters, in the halls and in any place the fixture is installed.
- Make sure all the parts for fixing the product are in good condition.
- Make sure that the anchor point is stable before positioning the product.
- Make sure the safety cable must be properly attached to the device and fixed to the supporting structure so that, in case of failure of the primary supporting system, it has the lowest possible fall of the device.
- Make sure that if the safety cable wear, must be replaced with an original spare.

MINIMUM DISTANCE OF ILLUMINATED OBJECTS

- The projector must be positioned so that the objects hit by the beam of light are at least 0.2 meter from the lens of the projector.

MINIMUM DISTANCE FROM FLAMMABLE MATERIALS

- The device is suitable for mounting on normally flammable surfaces.

REFERENCE TEMPERATURES

- The room temperature range of use of the device varies between -20°C (min) and +35°C (max): the device should not be used outside that range.
- Below the ambient temperature Ta = 35°C the light emission is guaranteed at maximum intensity for an undefined time, above this temperature an internal protection turn off the light temporarily until the internal temperature goes below the operative limit.
- The maximum temperature of the housing is Tc = 70°C ensuring the correct ventilation to the fixture frame.

IP67 PROTECTION RATING

- The device is protected against the dust penetration (first digit 6) and against a temporary immersion in water, up to 1m for 30 minutes, (second digit 7). Suitable for outdoor use.

PROTECTION AGAINST ELECTRIC SHOCK

- The device must be connected to a power supply system with an efficient grounding system.
- The earth connection is made using the Amphenol ECO-MATE connectors as input and output for the mains, signal and ground. Always check carefully the cables and connectors to ensure an efficient grounding for each QUARIUX single unit and the whole QUARIUX lighting system.
- Moreover, it is recommended to protect power supply lines of the product from indirect contact and / or shorting to earth by using appropriately sized anti electrical shock switch.

CONNECTION TO THE MAINS

- The electrical connection must be carried out by a qualified electrician.
- Ensure that the mains frequency and voltage correspond to those the equipment is designed for, as shown in the electrical data label. This label also shows the power consumption that is necessary to refer to evaluate the maximum number of devices that can be connected to the electricity line, in order to avoid power overloading.
- In case of non-use, it is recommended to unplug the projector from the mains.

WARNING

⚠️ CAUTION. Do not look directly at the light source. Do not look at the beam with lenses, glasses, mirrors or similar optical instruments that could change the convergence of light, causing serious damage to people and / or things.

IN CASE OF FAULT

- Do not operate on the product. Refer servicing to an authorized maintenance center.
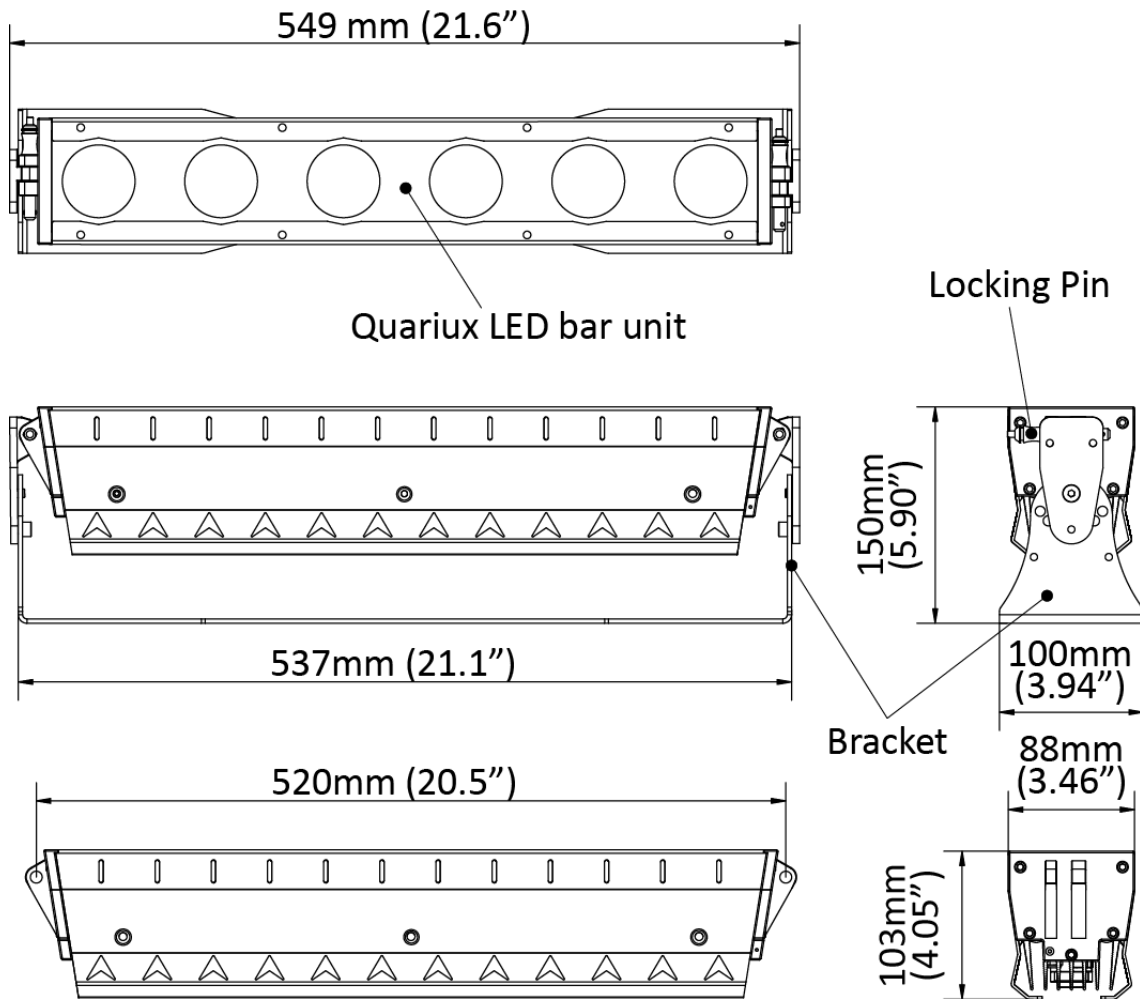
CE Conformity

PROEL S.p.A hereby, declares that this product complies with the essential requirements and other relevant provisions of:

- Directive 2014/35/EU (LVD), as stated in EN 61347-1, EN 61347-2-13, EN 60598-1, EN 60598-2-1 and EN 60598-2-17 standards.
- Directive 2014/30/EU (EMC), as stated in EN 55015, EN 61000-3-2/3-3, and EN 61547 standards.
- Directive 2011/65/EU (RoHS).
- Directive 2014/53/EU (RED), as stated in EN 300328V2.1.1, EN 301489-1V2.2.0 and EN 301489-17V3.2.0 standards.

Technical Specification

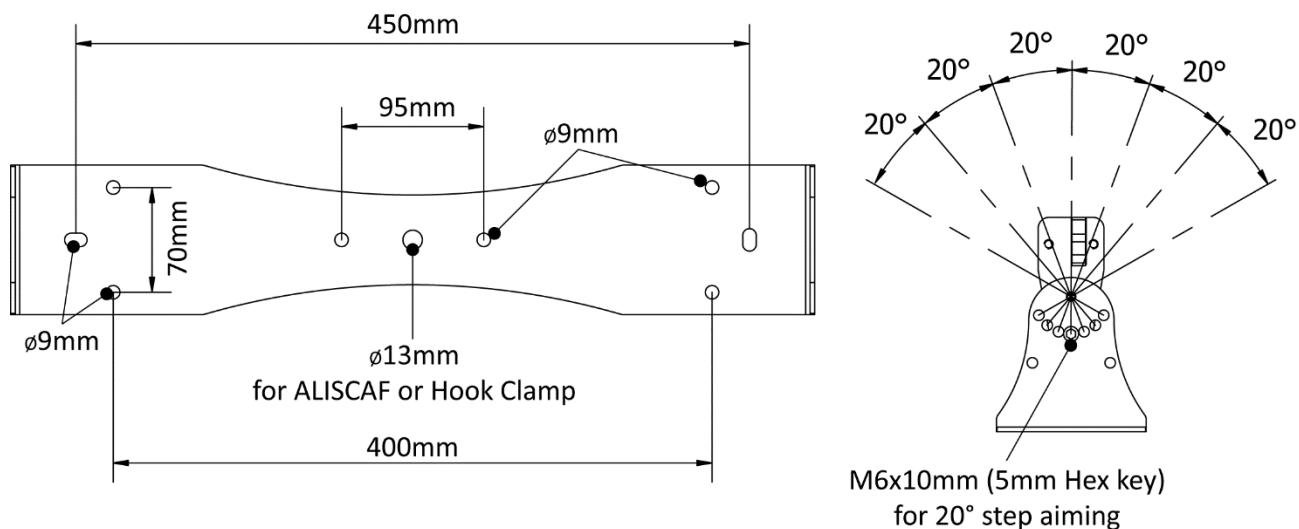|	
Light Source	6x30W COB led
	LED lifespan: >50.000h
	LED refresh frequency: >500Hz flicker free
Optic system	Beam angle: 12° (standard)
	SSZ: Solid State Zoom 12°-90° (Z models only)
	Optional optic: 24°/48°/80°/12°x90°asymmetric
	Aiming with support: ±60° at 20° step
Color system	RGBW / RGB / RGBL / CW / WW / VW
	Macro colors selectable via DMX
Effects	Linear dimmer 16 bit 0 - 100%
	Electronic strobo 1-20 flash/s adjustable speed
	Overboost Blinder
Control & Programming	DMX configurations: 1/2/3/5/7/10 channels
	4 dimmer curves selectable
	Protocol USITT DMX 512
	Master/Slave mode
	Preset macro colors with speed regulation
	Static Color: static reproduction of one color
	Touch pad with led indicators
	Integrated wireless dmx W-DMX ™
Structure	Aluminum, black or custom color
	Lexan, resistant to cuts and perforations
	Fast pin coupling system
	Bracket for anchoring and ground support
	Operating temperature from -20°C to +35°C
	IP rating: IP 67
	Convection cooling system without fans
Power supply	Mains Voltage: 100-240 V~ 50/60 Hz
	Power consumption: 180 W max
	Amphenol ECO-MATE^{m} 6 pole + PE, IN/OUT power connection and DMX signal
Weight and dimensions	Weight: 3.9 kg (4.5 kg with stand)
	Dimension: 520 x 88 x 103 mm (549 x 100 x 150 mm with stand)

Mechanical Parts and Dimensions

549 mm (21.6")

Quariux LED bar unit

Locking Pin

150mm (5.90")

537mm (21.1")

Bracket

100mm (3.94")

88mm (3.46")

520mm (20.5")

103mm (4.05")

Bracket Drilling & Beam Aiming

Use the centre Ø13mm hole for an ALISCAF or Hook clamp to fix the bracket at a stage structure or use the Ø9mm holes for wall/ceiling mounting.

The light beam of the LED bar can be aimed with 20° steps arranging the screws in the holes at each side of the bracket.

450mm

95mm

ø9mm

70mm

ø9mm

ø13mm
for ALISCAF or Hook Clamp

400mm

20° 20° 20°
20° 20°
20° 20°

M6x10mm (5mm Hex key)
for 20° step aiming

Hook up the Safety Rope

⚠ When the fixture operates as suspended, a safety rope, that ensures a supplementary fixing in case of failure of the main fixing, must be always used.

The hook of the optional PLH232 safety rope can be fixed in one of the four angular arrow holes as shown in the figure below. The rope must be arranged so that it has the shortest travel possible in case of its intervention.
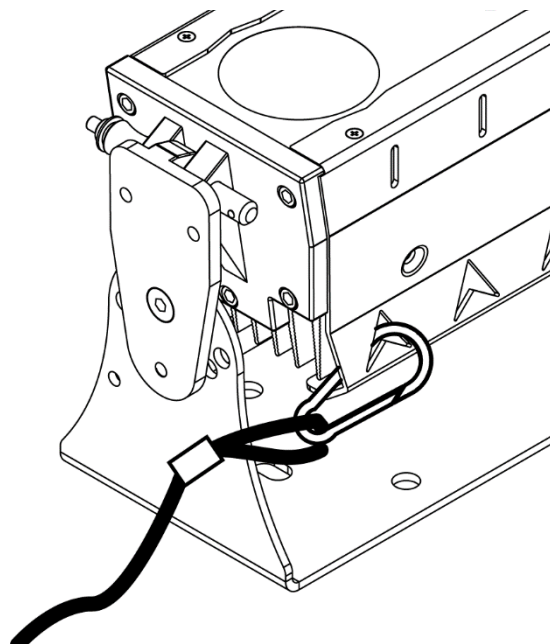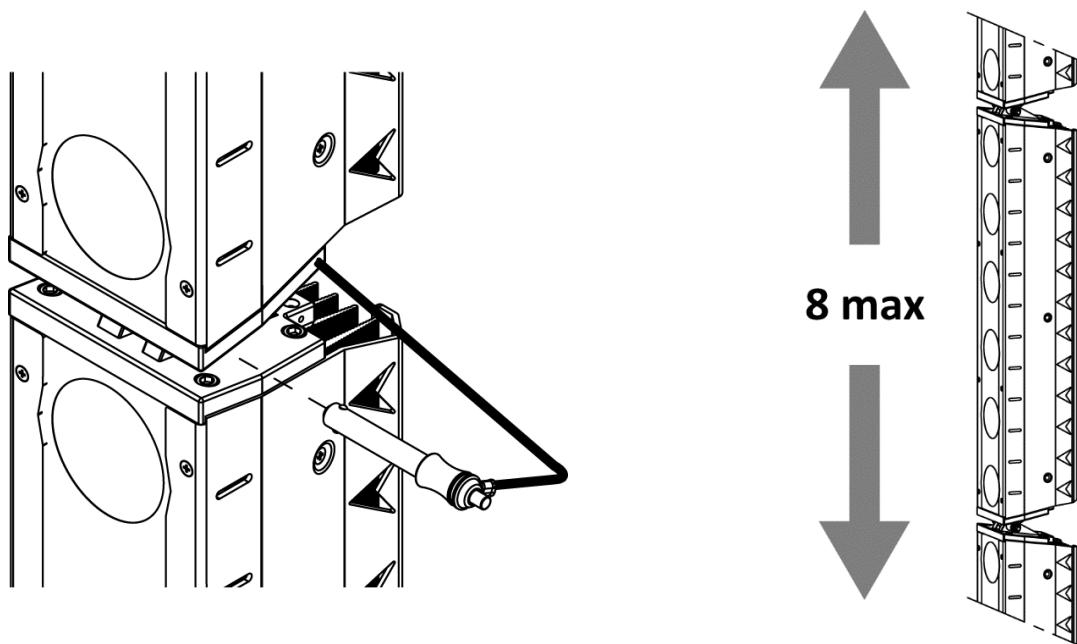

LED Bar linking

The LED bars can be attached to the bracket or linked together using the supplied locking pin or using the supplied M8 screws and bolt for a fixed installation.
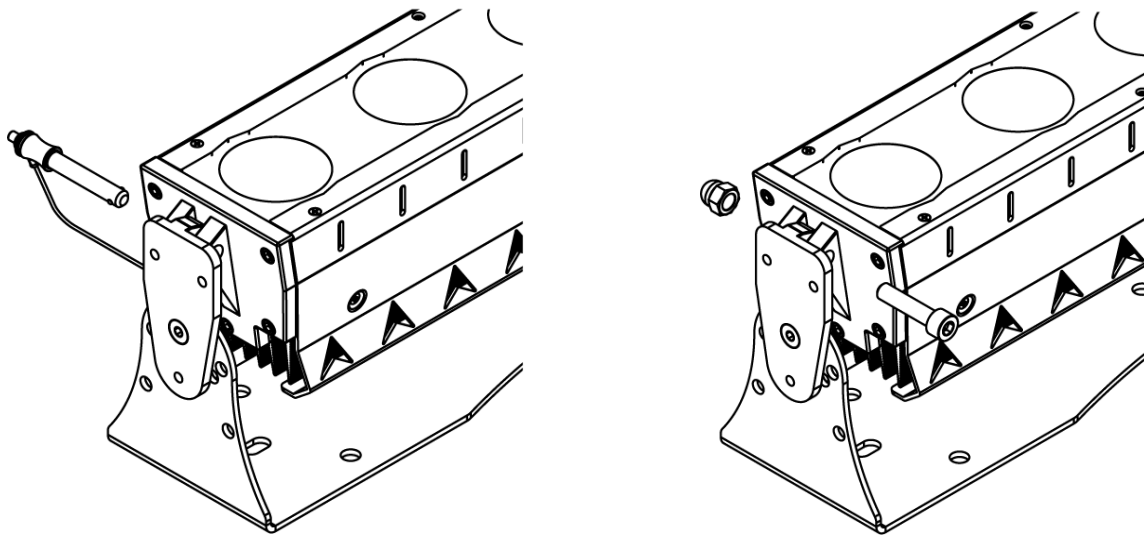
Vertical array linking

The QUARIUX LED bars can be arranged vertically as shown up to a maximum of 8 units.

8 max

SSZ Solid state zoom (only some models)

The SSZ solid state zoom is a feature available only in some models identified by a Z letter as last letter in the code/name of the fixture. It consists of a frost filter that can be controlled by a proper DMX channel (see tables further in this manual), which allows to have a variable beam that varies from 12° (transparent filter) to about 90° (full frost filter) as shown below.
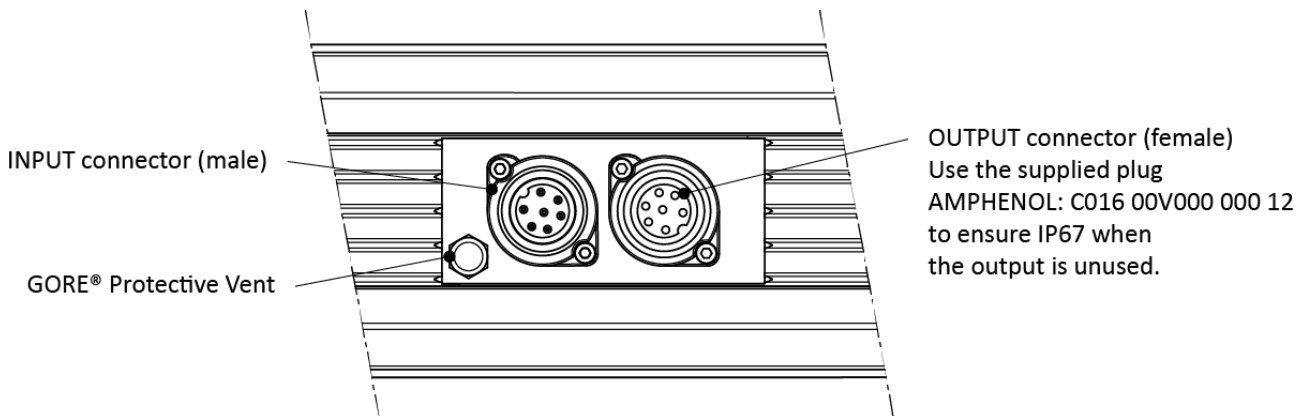
12° beam

90° beam
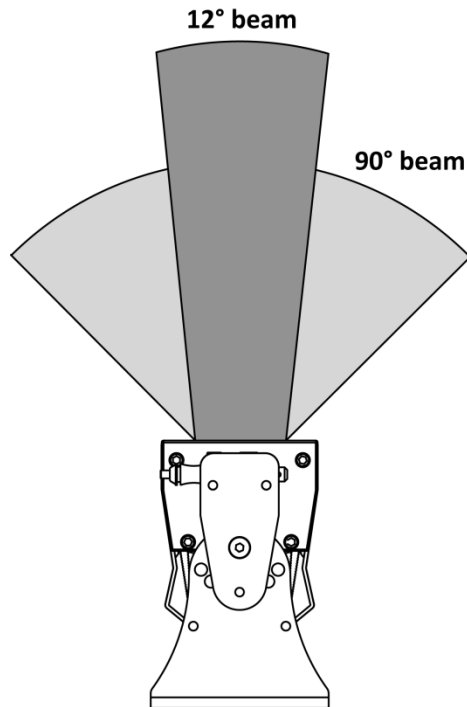
Rear Panel

The LED bar has two Amphenol ECO-MATE^m connectors on the rear panel: the male connector is the power INPUT and the female connector is the power OUTPUT. The power OUTPUT can be used to link another QUARIUX LED bar, if not used it should be kept closed using the provided plug.

⚠️ **WARNING: the maximum number of linkable QUARIUX is 8 units.**

INPUT connector (male)

GORE® Protective Vent

OUTPUT connector (female)
Use the supplied plug
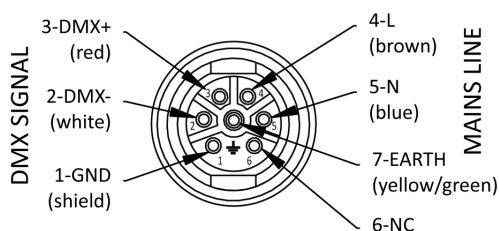AMPHENOL: C016 00V000 000 12
to ensure IP67 when
the output is unused.

The rear panel features also a GORE® Protective Vent, which is used to equalize the pressure and avoid the condensation water in the sealed enclosure. While keeping out solid and liquid contaminants, it improves the safety, reliability and service life of the fixture in outdoor environment.
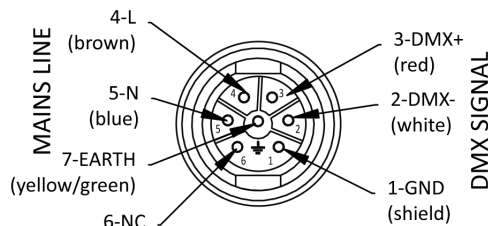
Connections

The LED bar is supplied with one Amphenol ECO-MATE^m female connector for cable type C016-30F006-10012 and one AMPHENOL female cover type C016 00V000 000 12 to ensure the IP67 feature if the output is not used.

⚠ A state of the art connection must be provided by a qualified operator, following the instructions below:

AC/DMX INPUT
female cable connector
(solder side)

DMX SIGNAL
3-DMX+ (red)
2-DMX- (white)
1-GND (shield)

4-L (brown)
5-N (blue)
7-EARTH (yellow/green)
6-NC
MAINS LINE

AC/DMX OUPUT
male cable connector
(solder side)

MAINS LINE
4-L (brown)
5-N (blue)
7-EARTH (yellow/green)
6-NC

3-DMX+ (red)
2-DMX- (white)
1-GND (shield)
DMX SIGNAL

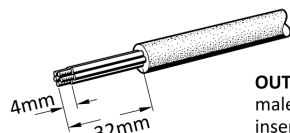⚠ put two heat-shrink sheath in the MAINS (brown and blue) wires for a supplementary insulation.
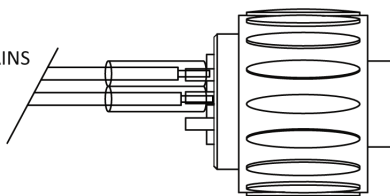
Suggested Cable:
PROEL CODE: DMXD1
Outer diameter: Ø 9.80 mm
Power: 3x1.5mm2 (AWG16)
Signal: 2x0.25mm2 (AWG24) + shield
Nominal impedance: 120 Ohm

4mm
32mm

OUTPUT
male contact insert with locking ring

Male OUTPUT:
AMPHENOL CODE: C016-30K006-10012

INPUT
female contact insert with locking ring

Female INPUT:
AMPHENOL CODE: C01630F006-10012

shell

right angled back shell tightening torque 1 - 2 Nm

clamping ring with mounted gasket

additionally included gasket

9-12,5mm

6-9mm

cable nut tightening torque 1,5 - 2 Nm
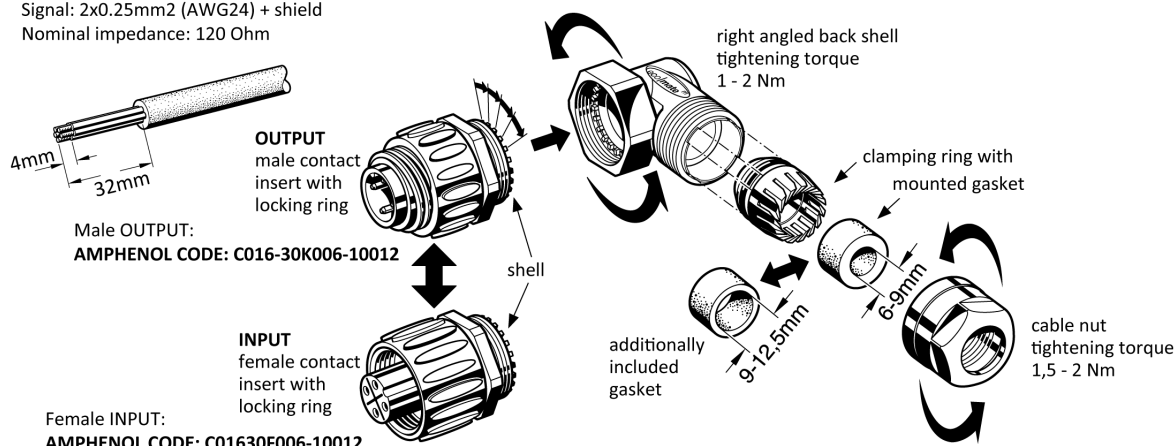
The previous instructions also show how to arrange an output connection to link more than one QUARIUX unit using an ECO-MATE^m male connector for cable type C016-30K006-10012.

Note: for long cable running of the DMX signal the end connection must be terminated with a 120 ohm resistor. In the figure below the termination circuit for XLR male connectors and Amphenol ECO-MATE^m male connectors is shown.

DMX IN (solder side)
MALE XLR 3 POLES
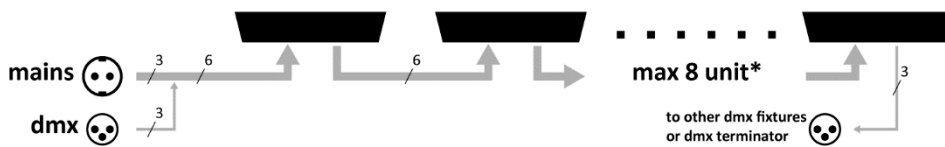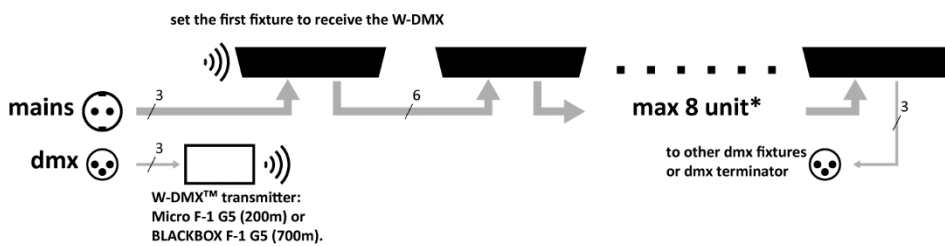
① gnd
③ dmx +
② dmx -

MALE XLR 5 POLES

① gnd
② dmx -
③ dmx +
④ sec dmx -
⑤ sec dmx +

MALE XLR 3 POLES terminator

120Ω 1/4W
③
②

MALE XLR 5 POLES terminator

②
③
120Ω 1/4W

DMX OUT (solder side)
FEMALE XLR 3 POLES

② dmx -
③ dmx +
① gnd

FEMALE XLR 5 POLES

⑤ sec dmx -
④ sec dmx -
③ dmx +
② dmx -
① gnd

Amphenol ECO-MATE^m male terminator (solder side)

3
2
120Ω 1/4W
-
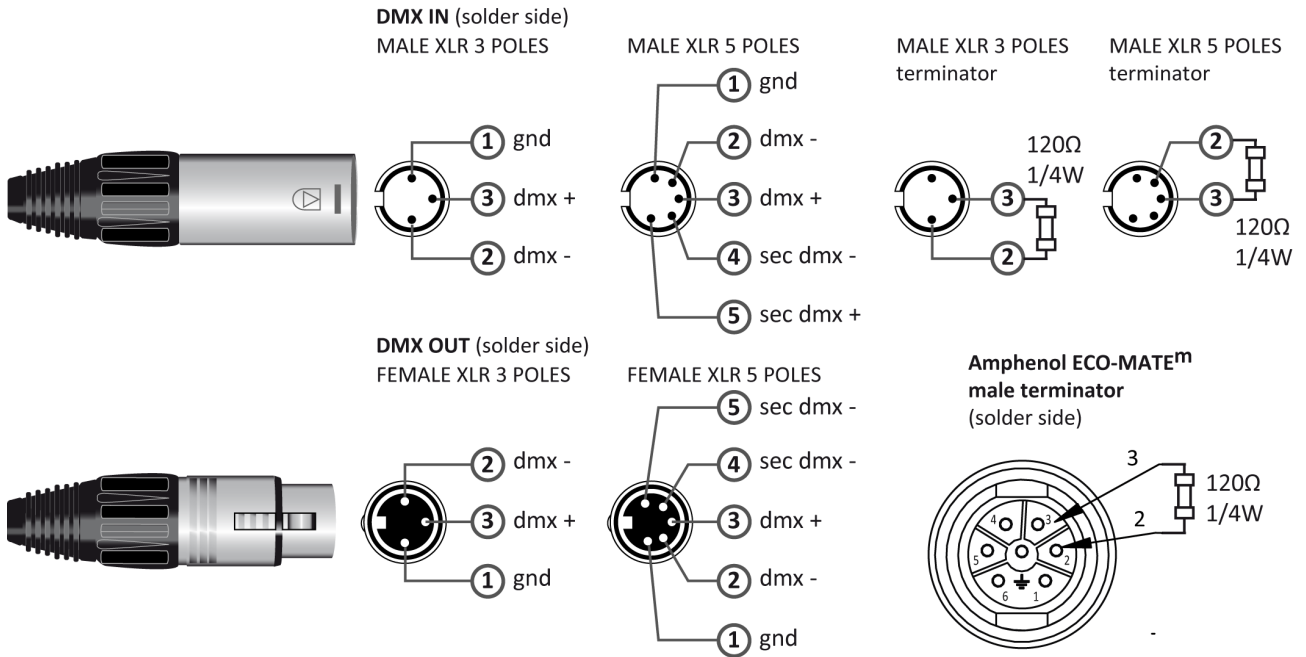
Connection Example

Standard connection with wired DMX

mains 3 6   6   max 8 unit*   3
dmx 3   to other dmx fixtures or dmx terminator

Connection with W-DMX™ and wired DMX

set the first fixture to receive the W-DMX

mains 3   6   max 8 unit*   3
dmx 3   to other dmx fixtures or dmx terminator

W-DMX™ transmitter:
Micro F-1 G5 (200m) or
BLACKBOX F-1 G5 (700m).

Connection with W-DMX™ only

set all fixtures to receive the W-DMX   all fixtures must be in the range of the W-DMX radio signal

mains 3   3   max 8 unit*
dmx 3

W-DMX™ transmitter:
Micro F-1 G5 (200m) or
BLACKBOX F-1 G5 (700m).

SAGITTER
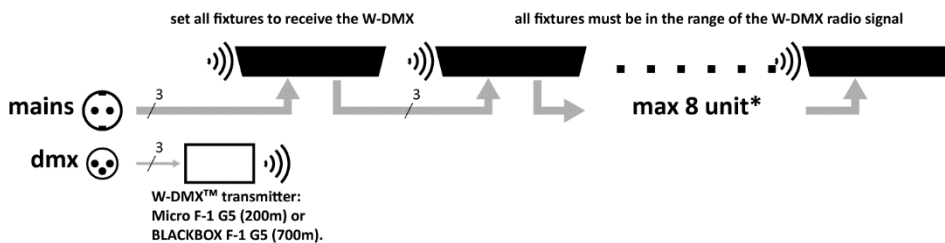
Connection without DMX console and MASTER - SLAVES fixtures

set the first fixture as MASTER   set all other fixtures as SLAVE

mains   3   6   max 8 unit*   3

to other same model
of QUARIUX
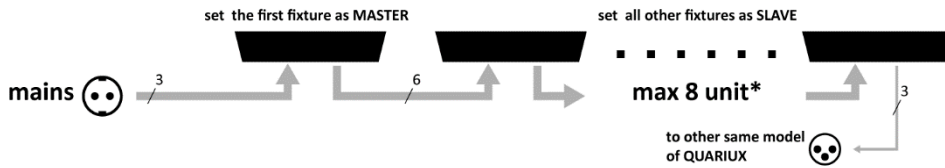
*note: max 8 unit can be powered sequentially from the same mains source while the dmx comnnection can continue the chain.

Control Panel

The LED bar has a small control panel at the center of the front lens, which consists of two touch sensitive keys, 9 setting LED and 2 status LED, needed to set properly the fixture.

SETTING LED   WDMX LED
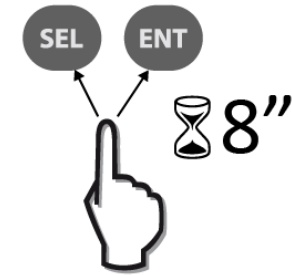   PAGE LED

SEL KEY   ENTER KEY
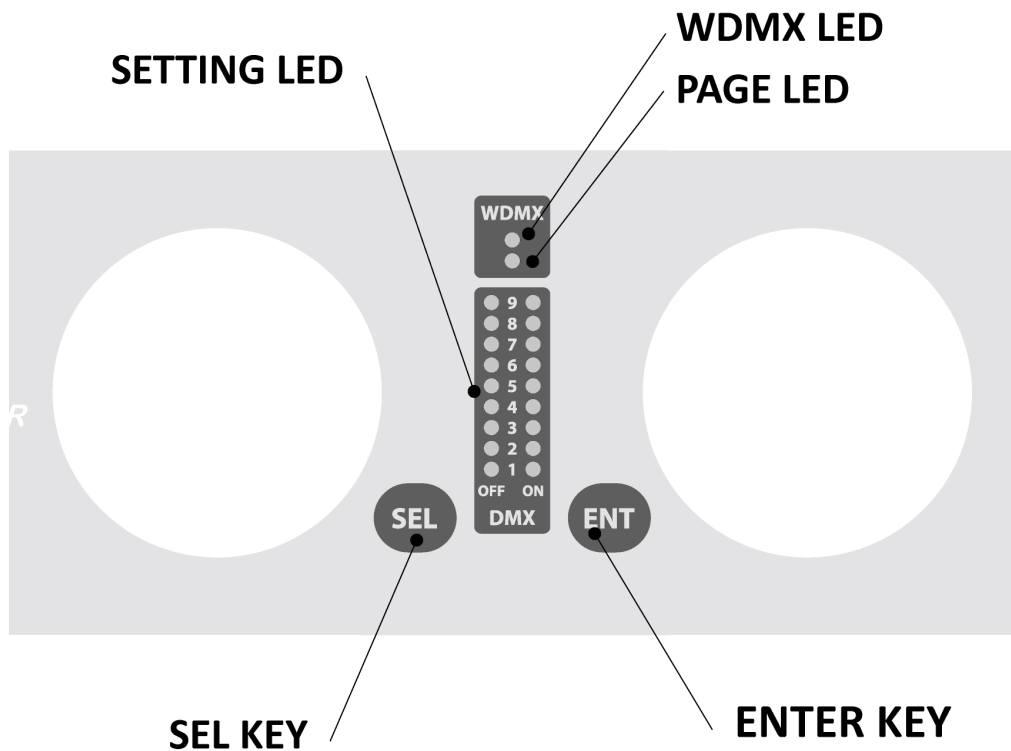
The LED are working only in SETUP MODE, as described in the following paragraph.

The upper status LED is blue: it lights up when the W-DMX ™ is active, it stays off when W-DMX ™ is not active.

The lower status LED is yellow: it lights up and stays fixed to indicate setting PAGE 1 and flashes for setting PAGE 2.

Setup Mode

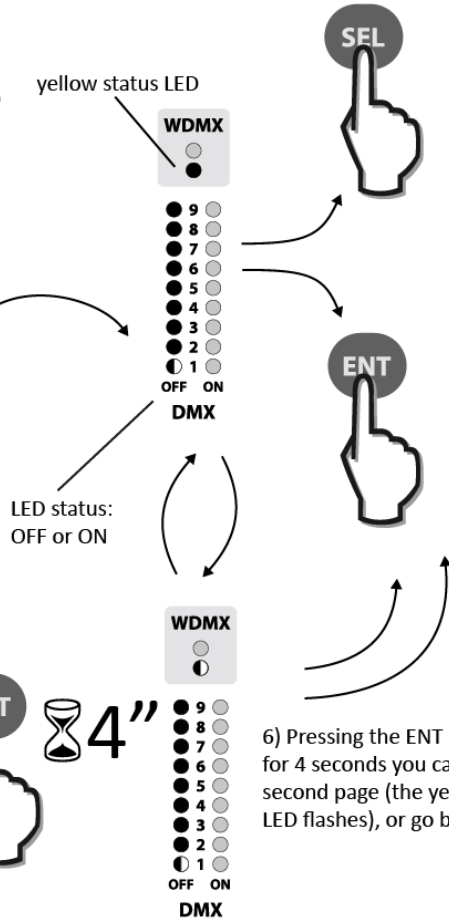1) Keeping the finger on SEL and ENT keys for 6 seconds you enter in SETUP mode

3) When the yellow status LED is fixed ON, you are in the PAGE 1 where you can set the starting DMX address of the fixture.

4) Pressing the SEL key you move to the next setting LED.

SEL **ENT**

8"

yellow status LED

2) confirm that you want to edit the configuration pressing ENT key within 3 seconds, elsewhere it goes back to normal operation.

ENT

LED status: OFF or ON
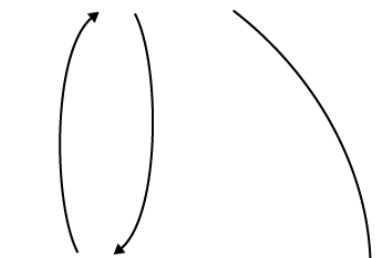
5) Pressing the ENT key you switch the correspondent setting LED:
if it's OFF it goes to ON
if it's ON it goes to OFF

3"

ENT 4"

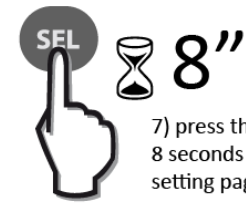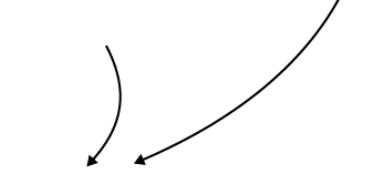○ LED off
● LED on
◐ LED flashing

6) Pressing the ENT key for 4 seconds you can go to the second page (the yellow status LED flashes), or go back to page 1.

SEL 8"

7) press the SEL key for 8 seconds to exit from setting pages.

exit

Page 1: DMX Address

DMX address defines the starting address to control the fixture using the USITT DMX512 protocol. The number of channels occupied by the fixture is set on page 2.

The starting address is set up summing the corresponding number of each setting LED that is ON:

Setting LED:	1	2	3	4	5	6	7	8	9
Number to sum:	1	2	4	8	16	32	64	128	256

So if you want to set the number 200, you have to turn ON the LED: 8, 7, 4 corresponding to the sum of 128 + 64 + 8 = 200. The starting number is set as 1 as a factory default setting. Please note that the maximum number practically usable is 512 – "number of attributes" of the fixture.

![SAGITTER logo]

Page 2 : Fixture Parameters

The following table shows how to set the fixture's parameters on SETUP page 2.

LED 1-2	OFF-OFF: the fixture attributes are configured as extended (see the attributes table) OFF-ON: the fixture attributes are configured as reduced (see the attributes table) ON-OFF: the fixture is configured as MASTER (see macro table) ON-ON: the fixture is configured as SLAVE, in other words it receives the commands from the MASTER fixture.
LED 3	OFF: W-DMX ™ is disabled ON: W-DMX ™ is enabled Note: activating the internal W-DMX ™ receiver does not exclude the DMX wire connection. Unplug the DMX cable if you want to use only the W-DMX ™.
LED 4-7	When the fixture is configured as MASTER these bits set the macro (see macro table)
LED 8-9	When the fixture is configured as MASTER these bits set the macro speed: OFF-OFF: the macro runs at 1/8 speed (slower) OFF-ON: the macro runs at 1/4 speed ON-OFF: the macro runs at 1/2 speed ON-ON: the macro runs at full speed (faster)

Enable and Pair the W-DMX™

Entering in SETUP mode is possible to check the W-DMX™ status by means of the **W-DMX BLUE LED**:

A) **W-DMX BLUE LED is OFF**: the unit has not been paired before with a transmitter and it waits to be paired with one transmitter;
B) **W-DMX BLUE LED is fixed ON**: the unit has been paired before with a transmitter and the transmitter is active;
C) **W-DMX BLUE LED is flashing**: the unit has been paired before with a transmitter but the transmitter is turned off or missing or different. The unit waits for the transmitter previously paired to change its status as B. In case you want to pair it with another transmitter you have to un-pair the unit changing its status as A, with a method explained below.

To enable the W-DMX go to LED 3 of page 2, press the ENT key one time to switch the LED 3 to ON position. Please note that enabling the W-DMX doesn't mean that the unit is paired, but that the unit is able to receive DMX data from the wireless.

To disable the W-DMX go to LED 3 of page 2, press the ENT key one time to switch the LED 3 to OFF position. Please note that disabling the W-DMX doesn't mean that the unit is unpaired, but that the unit is unable to receive DMX data from the wireless.

To pair fixtures to a transmitter press the red button on the transmitter for 1 second (Pairing receivers): all QUARIUX that are turned on and that are not paired before to another transmitter (status A) will be paired with this transmitter (status B).

To un-pair all fixtures simultaneously press the red button on the transmitter for 5 second (Unpairing receivers): all QUARIUX that are turned on and are paired (status B) will be un-paired from this transmitter and will be in status A.

To un-pair a single QUARIUX fixture go to LED 3 of page 2: with the LED 3 switched ON (W-DMX is active), press and hold the ENT key for 5 seconds to un-pair, the correspondent LED 3 will flash more rapidly for some seconds. At the end the W-DMX BLUE LED turns off and the unit goes to status A, ready to be paired again.

Attribute Table

QUARIUX RGBW (7 channels) and RGBWZ (8 channels) extended table:

Channel	Attribute Name	Range	Description
1	Red	0-255	0 = No red > 255 = maximum
2	Green	0-255	0 = No green > 255 = maximum
3	Blue	0-255	0 = No blue > 255 = maximum
4	White	0-255	0 = No white > 255 = maximum
5	Dimmer	0-255	Light intensity dimmer from 0 = no light to 255 = full
6	Shutter	0-255	0 = No Shutter 1-255 = Shutter strobe velocity from slow to fast when channel 7 value is within 15-89 range, this channel determines the Rainbow velocity, from 0 slow to 255 fast.
7	Rainbow	0-14 15-29 30-44 45-59 60-74 75-89 90-104 105-119 120-134 135-149 150-164 165-179 180-194 195-209 210-224 225-239 240-255	None Rainbow fade 100% Rainbow fade 50% Rainbow snapstart Rainbow + White Fade 100% Rainbow + White Fade 50% Red Red / Green (Yellow) Green Green / Blue (Cyan) Blue Blue / Red (Magenta) White Red / Green / Blue / White Full White 3200 K White 4000 K White 5600 K
8*	Zoom	0-255	SSZ control beam from 12° to 90° (*SSZ only)

QUARIUX RGBW (4 channels) and RGBWZ (5 channels) reduced table:

Channel	Attribute Name	Range	Description
1	Red	0-255	0 = No red > 255 = maximum
2	Green	0-255	0 = No green > 255 = maximum
3	Blue	0-255	0 = No blue > 255 = maximum
4	White	0-255	0 = No white > 255 = maximum
5*	Zoom	0-255	SSZ control beam from 12° to 90° (*SSZ only)

Macro Table

Each macro is a dmx sequence or a dmx fixed setup that is sent from a Quariux fixture set as Master to other Quariux fixtures set as Slave and connected via DMX cable. The following table shows the pre-configured macros on RGBW and RGBWZ models:

Macro	LED 4	LED 5	LED 6	LED 7	Brief effect description
1	OFF	OFF	OFF	OFF	Rainbow Fade 100%
2	OFF	OFF	OFF	ON	Rainbow Fade 50%
3	OFF	OFF	ON	OFF	Rainbow Snapstart
4	OFF	OFF	ON	ON	Rainbow + White Fade 100%
5	OFF	ON	OFF	OFF	Rainbow + White Fade 50%
6	OFF	ON	OFF	ON	Red
7	OFF	ON	ON	OFF	Red / Green (Yellow)
8	OFF	ON	ON	ON	Green
9	ON	OFF	OFF	OFF	Green / Blue (Cyan)
10	ON	OFF	OFF	ON	Blue
11	ON	OFF	ON	OFF	Blue / Red (Magenta)
12	ON	OFF	ON	ON	White
13	ON	ON	OFF	OFF	Red / Green / Blue / White Full
14	ON	ON	OFF	ON	White 3200 K
15	ON	ON	ON	OFF	White 4000 K
16	ON	ON	ON	ON	White 5600 K

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