Appoli™ S MC

QR code for user manual

Version 1.0

Table of contents

> **FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY**
> **BEFORE POWERING OR INSTALLING YOUR Appoli !**
> *Save it for future reference.*

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

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

Unauthorized modification will void warranty.

1. Safety instructions

> **DANGEROUS VOLTAGE CONSTITUTING A RISK OF ELECTRIC SHOCK IS PRESENT WITHIN THIS UNIT!**

This fixture should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied, consult your authorized distributor or local power company.

Always disconnect the fixture from AC power before servicing or cleaning.

Make sure the power/data cable is not damaged by sharp edges.

Do not install the unit near an open flame.

Refer servicing to qualified service personnel.

This fixture falls under protection class I. Therefore this fixture has to be connected to a mains socket outlet with a protective earthing connection.

Do not connect this fixture to a dimmer pack.

LED light emission. Risk of eye injury. Do not look into the beam from a short distance without suitable protective eyewear. Do not look at LEDs with magnifiers or similar optical instruments that may concentrate the light output. The intense light beam may damage your eyes. Sensitive persons may suffer an epileptic shock. Provide advance notice that strobe lighting is in use.

The fixture was designed for outdoor use. This fixture must not be used for underwater installation.

When choosing the installation spot, please make sure that the fixture is not exposed to extreme heat or dust.

Avoid using the unit in locations subject to possible impacts.

The fixture body never must be covered with cloth or other materials when the fixture is under operation.

Only operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.

The fixture becomes hot during operation. Allow the fixture to cool approximately 30 minutes prior to servicing or maintenance.

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

Please use the original packaging if the fixture is to be transported.

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

The product (covers and cables) must not be exposed to a high frequency electromagnetic field higher than 3V/m.

Immunity of the equipment is designed according to the standard EN 55035 Electromagnetic compatibility of multimedia equipment - Immunity requirements

Emission of the equipment complies with the standard EN55032 Electromagnetic compatibility of multimedia equipment – Emission Requirements according to class A.

Contains FCC ID: 2A6PL-DMXRDMRW001
Contains IC: 29573-DMXRDMRW001

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The [Device] wireless operation is safe and complies to RF Exposure requirements.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
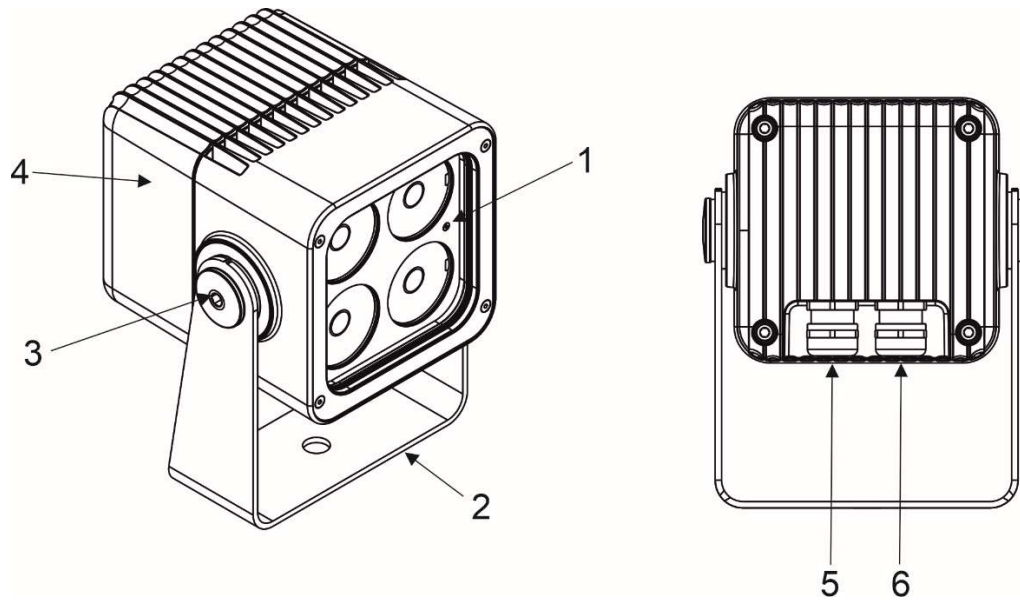- Consult the dealer or an experienced radio/TV technician for help.

Warning for fixtures with Harsh Environment Finish (HEF):
Handle with care!
Avoid any damage to the painted surface.
Damaging the paint may result in corrosion and loss of warranty.

2. Fixture exterior view
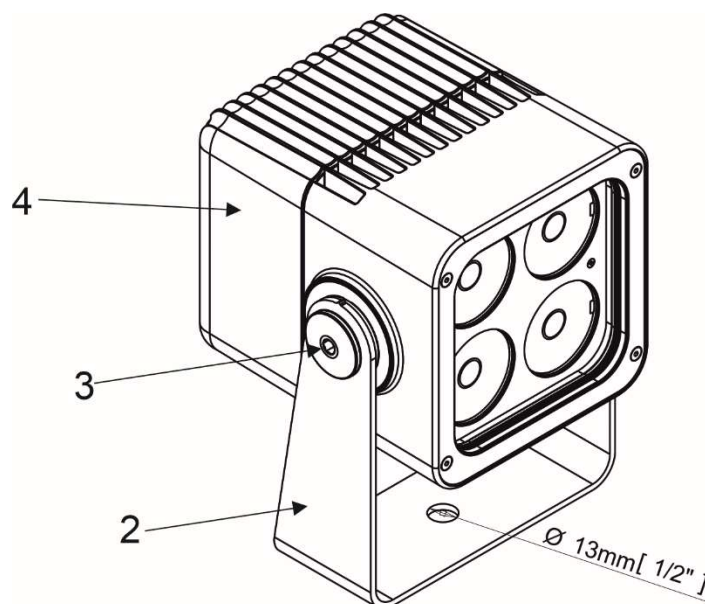
1. Transparent glass cover
2. Mounting yoke
3. Tilt adjusting lock
4. LED module with heat sink
5. Cable glend – data/power output
6. Cable glend - data/power input

3. Installation

3.1 Mounting the fixture

The Appoli S can be fastened in any orientation on a flat, non-flammable surface by means of the mounting yoke (2) with the hole of diameter of 13 mm.

The LED module (4) can be tilted +40°/-14° by the tilt adjusting lock (3) Use the Allen key size 6 for adjusting the LED module position.

Ensure that the structure to which you are attaching the fixture is secure.

3.2 Connection to mains

*The unit must be installed by a qualified electrician in accordance with all national and local electrical and construction codes and regulations.
This device falls under class one and must be grounded!*

The Appoli is equipped with auto-switching power supply that automatically adjusts to any 50/60Hz AC power source from 120-277 Volts.
The Appoli is can be equipped with one cable without connector for direct connecting to the junction box or with two cables with installed connectors for IN/OUT connection of the Appolis.

3.2.1 Junction box installation

The junction box falls under protection class I . Therefore, every junction box has to be connected to a mains socket outlet with a protective earthing connection.

1.Unscrew the four screws (1) from the cover (2) on the junction box to get access to the terminal block (3) and two mounting holes of diameter of 4.6 mm (4).

2. Screw the junction box on a non-flammable flat surface.
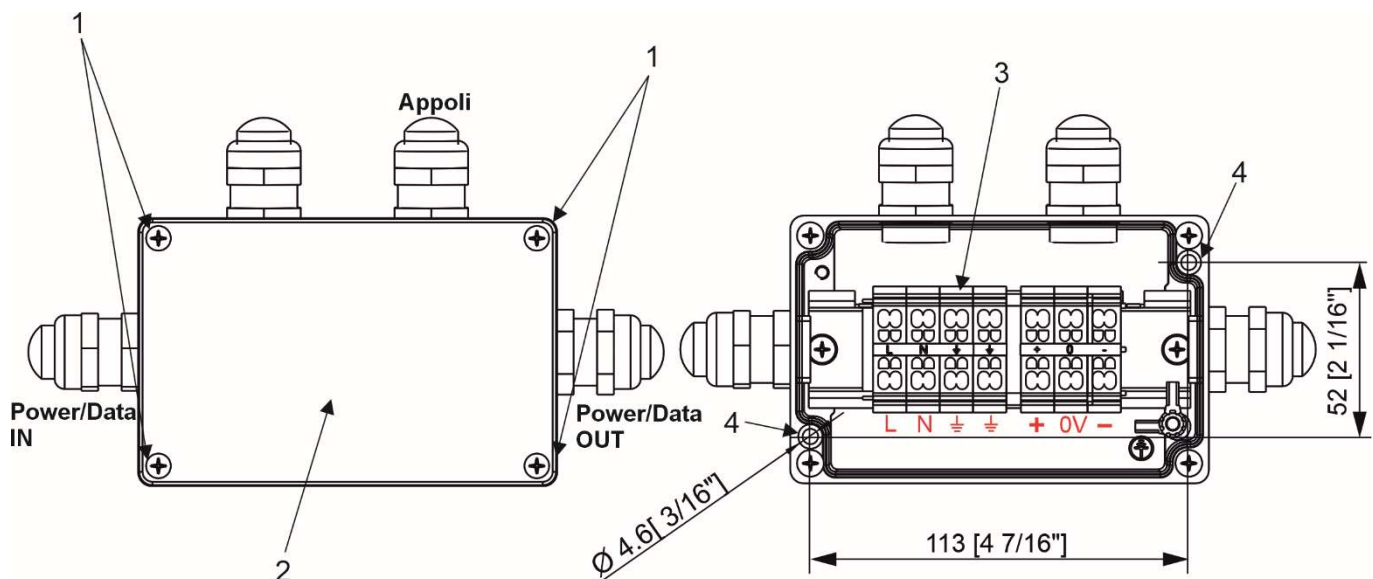
3. Connect cables.

CE version of the junction box-the Appoli cable gland M20 x 1.5 with a standard seal serves for a cable of diameter of 6-12mm
US version of the junction box-the Appoli cable gland M20 x 1.5 with a standard seal serves for a cable of diameter of 7-13mm

The reducing seal for diameter of cable 4-8mm (P/N 13051388) is enclosed in the Junction box. You have to remove the original seal from the cable gland M20x1.5 and use this enclosed reducing seal instead of it

Remove the end cap from the cable gland before passing the cable. To keep declared IP rating of the device, every cable gland has to be covered with the end cap if the cable gland is not used.

The junction box with panel connectors serves for connecting Appoli S and Calummas (Calumma S/M/L/XL) to the line of Emineres.

CE version of the junction box with panel connectors-the Appoli cable gland M20 x 1.5 with a standard seal serves for a cable of diameter of 6-12mm.
US version of the junction box with panel connectors-the Appoli cable gland M20 x 1.5 with a standard seal serves for a cable of diameter of 7-13mm.
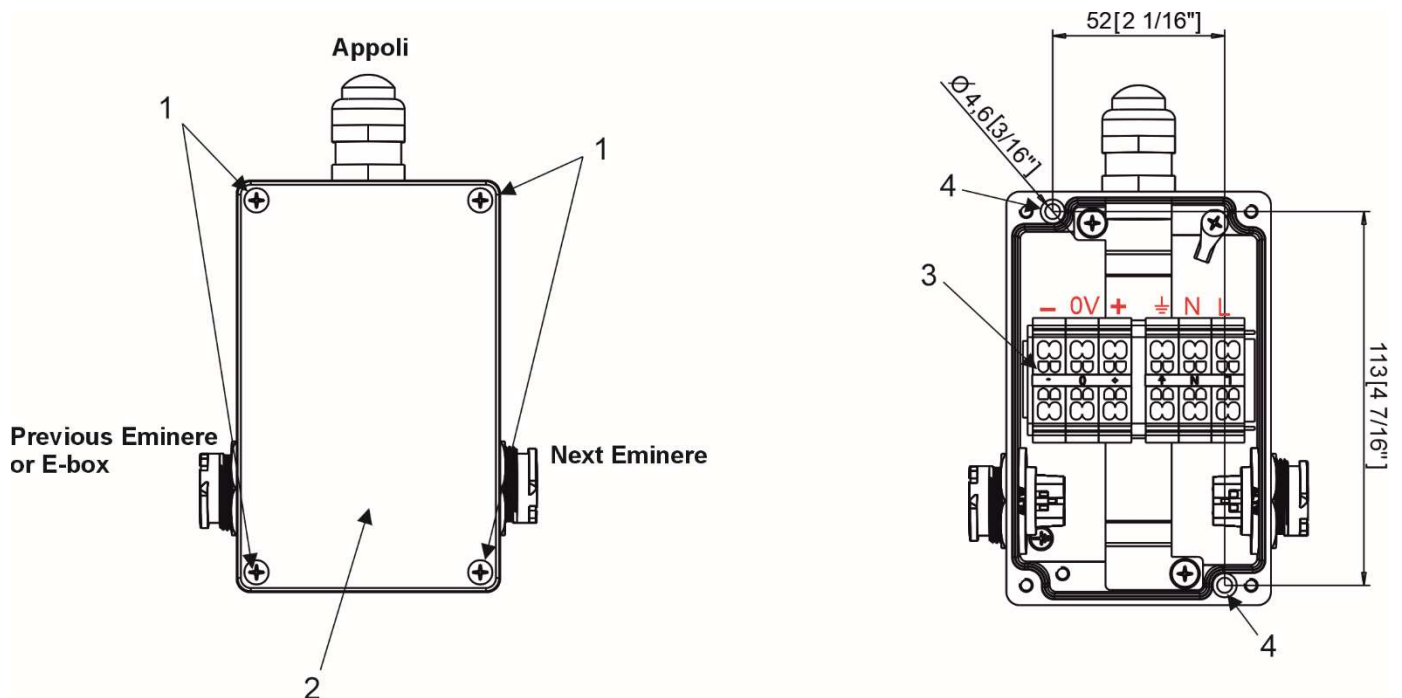
We recommend to apply an adequate layer of the paste LOCTITE 5331 on the plastic holder of the cable gland M20x1.5 before inserting it into the body of the gland

Cable gland M20x1.5:

LOCTITE 5331

End cap

Terminal block cover
Body of gland
Plastic holder
Rubber seal
Metal nut
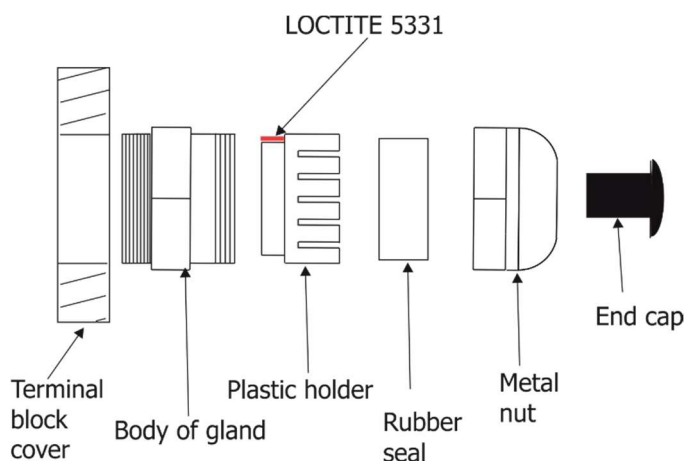
4. Screw the cover (2) back on the junction box.

3.2.2 Appoli-connection of leader cables with connectors

Input connector (male)
(front view)
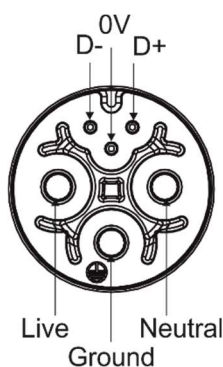
Output connector (female)
(front view)

0V
D- D+

0V
D+ D-

Live   Neutral
Ground

Neutral   Live
Ground
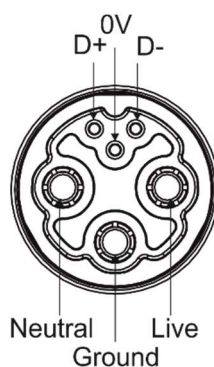
Leader Cable (CE):

Wire	Power Connection	Wire	Data Connection
Brown	Live	Orange	Data -
Blue	Neutral	Purple	Data +
Yellow/Green	Ground (Earth)	Shielding	Data ground (0V)

Fixture´s Amphenol connectors are dust and water protected according to IP 67 by mating with related Amphenol connectors. They cannot stay disconnected outdoor.
The output connector at last fixture in the Appoli chain has to always be covered with the water-tight cap to keep declared IP rating.

4. Control and connection options

> ***Do not connect (disconnect) Appolis to the E-box or each other when they are under voltage!***

> ***When you change any setting of the E-box, disconnect the E-box from power and connect it to power again to activate changes which you have done.***

Behaviour when DMX data is lost.
This depends on if E-box is present or not. Without E-box, last valid DMX frame is held.
With E-box, there is a DMX Hold setting in the E-box (menu path: Personality →DMX Hold).
DMX Hold = On: last DMX frame is held.
DMX Hold = Off: E-box sends zero values to Appolis.

4.1 DMX

4.1.1 With junction boxes (CE)

Example
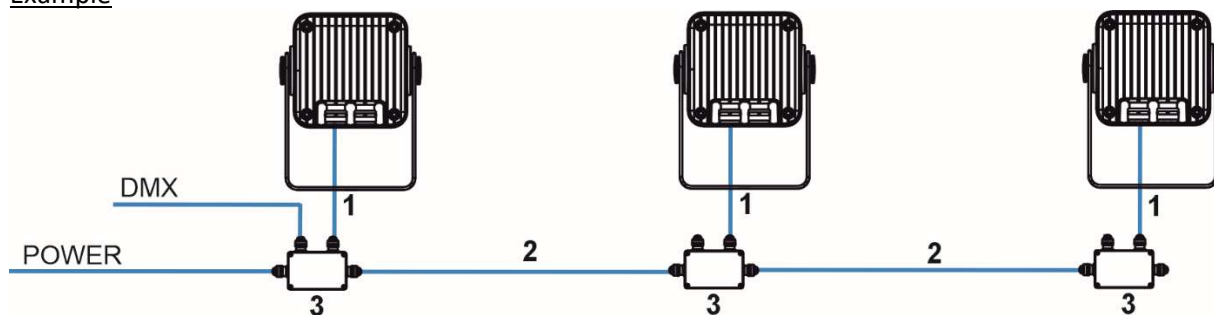
1- Flamar 3x AWG 16 + 1x (2x AWG 24), (P/N 1305 1508), with bare-end,1m, black
2- Flamar 3x AWG 16 + 1x (2x AWG 24), (P/N 1305 1508), with bare-end, black
3- Junction box (P/N 1098 0714)

Connection (CE)
IF the 5-cored cable Flamar 3x AWG 16 + 1x (2x AWG 24), (P/N 1305 1508) is used for Appoli connection and connection among junction boxes:

Core	Connection	Core	Connection
Black	Live (L)	Red	Data + (+)
Blue	Neutral (N)	White	Data – (-)
Yellow/Green	GND ⏚	Shielding	Data ground (0V)

Up to 32 Appolis can be connected in DMX chain.

⚠️ **NOTE**: DMX line of Appolis S has to be terminated at the last fixture. Connect a 120 Ohm resistor between terminals + and - in the junction box at last fixture.

Example

120 Ohm

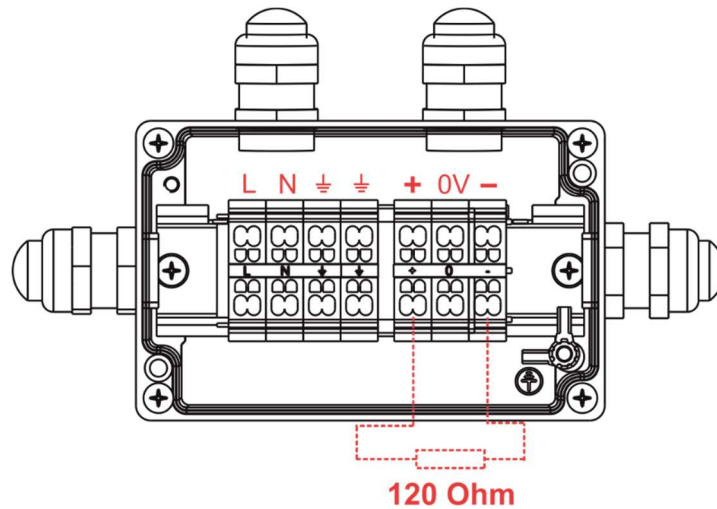⚠️ **OR** terminate via RDM Set the 'Manufacturer PID' 'Terminator active' to '1' at last fixture by means of RDM Control Panel.

Terminator active (0-dis 1-en): 00   (hex)

Ensure **ONLY** the last fixture in the line is terminated using **ONE** of the above methods!

4.1.2 With junction boxes equipped with panel connectors (CE)/(US)

Example
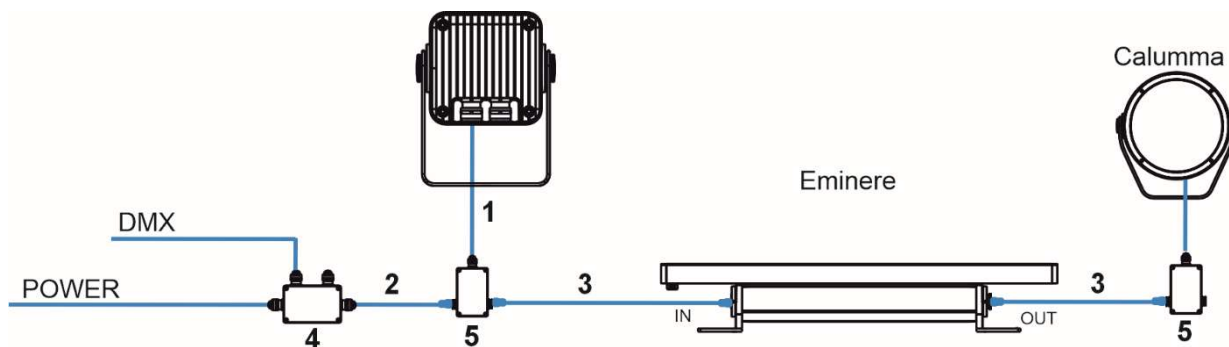
Note: The last unplugged connector must be fitted with a Waterproof Cap to protect the IP rating.

CE version
1- Flamar 3x AWG 16 + 1x (2x AWG 24), (P/N 1305 1508), with bare-end,1m, black
2- Leader cable FF, length - see the chapter Technical Specifications
3- Jumper cable FF/FM, length - see the chapter Technical Specifications
4- Junction box (P/N 1098 0714)
5- Junction box with panel connectors for Appoli S, Calumma S–XL / Eminere CE (P/N 10981268 for RAL9011)

US version
1- 6-cored cable SJTW 6x 14AWG, (P/N 1305 3480), with bare-end, 1m, black
2- Leader cable FF, length - see the chapter Technical Specifications
3- Jumper cable FF/FM, length - see the chapter Technical Specifications
4- Junction box (P/N 1098 0714)
5- Junction box with panel connectors for Appoli S, Calumma S–XL / Eminere CE (P/N 10981269 for RAL9011)

Connection (CE)
IF the 5-cored cable Flamar 3x AWG 16 + 1x (2x AWG 24), (P/N 1305 1508) is used for Appoli connection to the junction box with panel connectors.

Core	Connection	Core	Connection
Black	Live (L)	Red	Data + (+)
Blue	Neutral (N)	White	Data – (-)
Yellow/Green	GND ⏚	Shielding	Data ground (0V)

Connection (US)
IF the 6-cored cable SJTW 6x 14AWG, (P/N 1305 3480) is used for Appoli connection to the junction box with panel connectors.

Core	Connection	Core	Connection
Black	Live (L)	Red	Data + (+)
White	Neutral (N)	Orange	Data – (-)
Yellow/Green	GND ⏚	Blue	Data ground (0V)

4.1.3 With IN/OUT connectors (CE)
Example
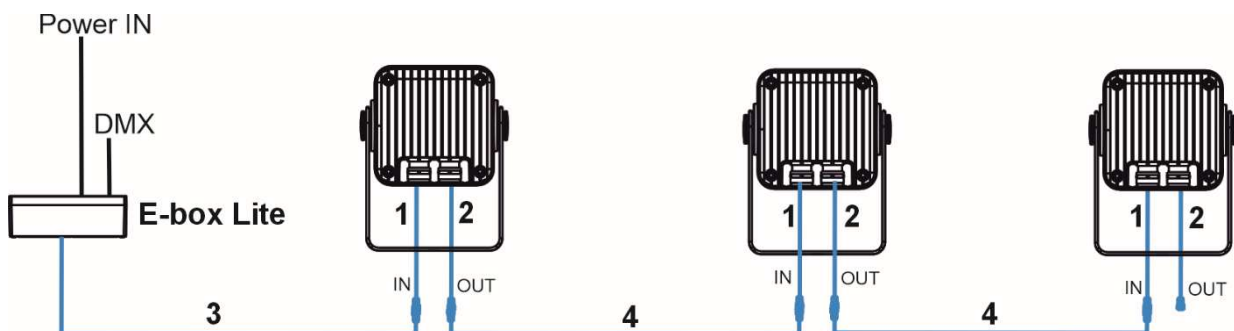
Note: The last unplugged connector must be fitted with a Waterproof Cap to protect the IP rating.
   E-Box has to be in pass through mode only.

1- Leader cable MM (P/N 13053493) with connector, standard 0.5 m
2- Leader cable MF (P/N 13053494) with connector, standard 0.5 m
3- Leader cable FF, length - see the chapter Technical Specifications

4- Leader cable FF/FM, length - see the chapter Technical Specifications

Terminate DMX line via RDM- Set the 'Manufacturer PID' 'Terminator active' to '1' at last fixture by means of RDM Control Panel.

Combination of Appoli S, Eminere and Calumma M/L/XL is also possible.
Example
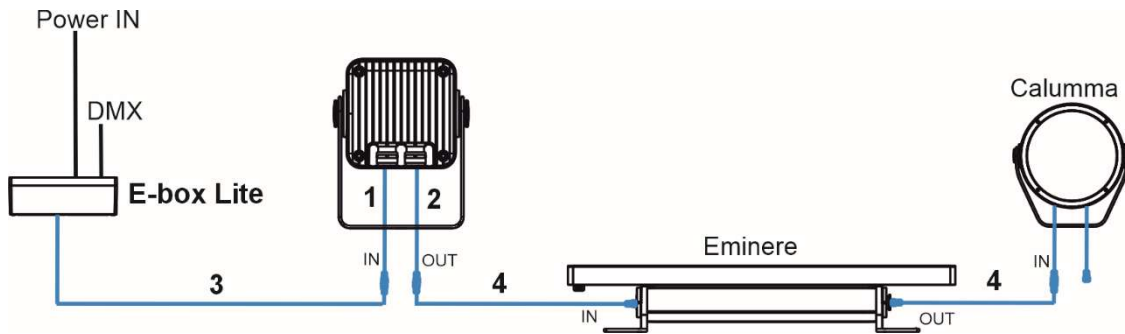
4.2 DMX or ETHERNET via E-Box (CE)/(US)
Example
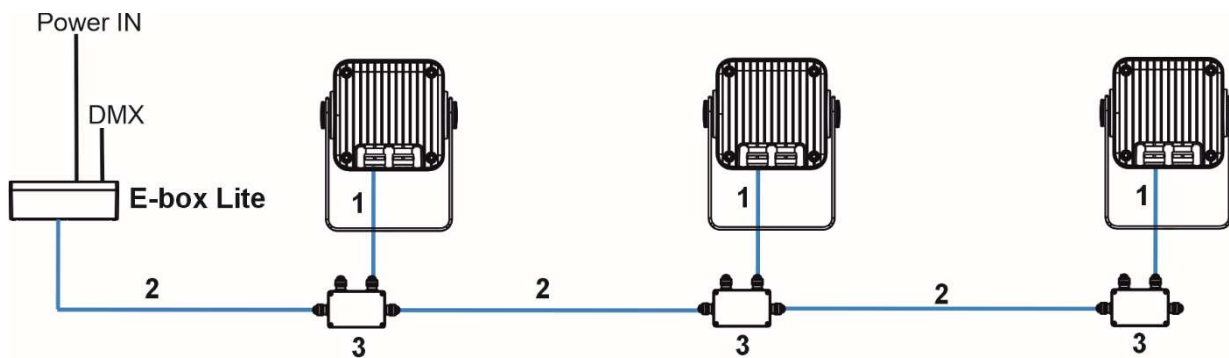
Note: E-Box has to be in pass through mode only.

CE version
1   Flamar 3x AWG 16 + 1x (2x AWG 24), (P/N 1305 1508), with bare-end,1m, black
2   Flamar 3x AWG 16 + 1x (2x AWG 24), (P/N 1305 1508), with bare-end,1m, black
3   Junction box (P/N 1098 0714)

US version
1   6-cored cable SJTW 6x 14AWG, (P/N 1305 3480), with bare-end, 1m, black
2   6-cored cable SJTW 6x 14AWG, (P/N 1305 3480), with bare-end, 1m, black
3   Junction box (P/N 1098 0714)

Connection (CE)
IF the 5-cored cable Flamar 3x AWG 16 + 1x (2x AWG 24), (P/N 1305 1508) is used for Appoli connection to the junction box.

Core	Connection	Core	Connection
Black	Live (L)	Red	Data + (+)
Blue	Neutral (N)	White	Data – (-)
Yellow/Green	GND ⏚	Shielding	Data ground (0V)

Connection (US)
IF the 6-cored cable SJTW 6x 14AWG, (P/N 1305 3480) is used for Appoli connection to the junction box.

Core	Connection	Core	Connection
Black	Live (L)	Red	Data + (+)
White	Neutral (N)	Orange	Data – (-)
Yellow/Green	GND ⏚	Blue	Data ground (0V)

⚠️ **NOTE**: DMX line of Appolis S on each output of the E-box has to be terminated at last fixture. Connect a 120 Ohm resistor between terminals + and - in the junction box at last fixture.

Number of connected Appoli to one output of the E-box depends on a cable length and power voltage.
Table for Pass-Through mode of E-box.

Appoli S MC	Voltage			
Cable length *	120V	190V	230V	277V
10 m	32	32	32	32
20 m	32	32	32	32
30 m	32	32	32	32
50 m	26	32	32	32
70 m	18	32	32	32
100 m	13	32	32	32

* Cable length is a total cable length between power supply (e.g. E-box) and last connected Appoli.
  Example: Total cable length=L1+L2+L3+L4+L5+L6
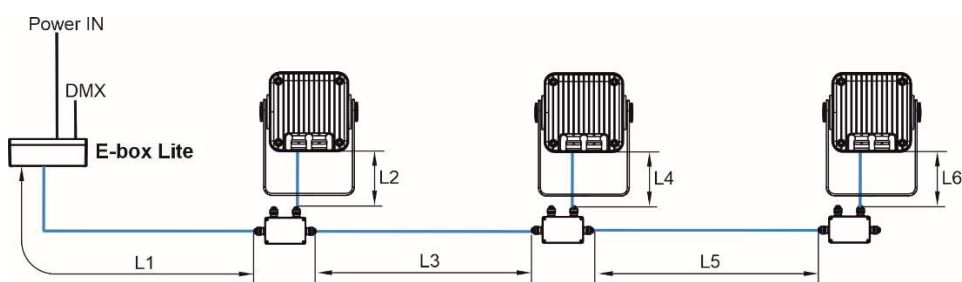
4.3 Example of Control panel in RDM manager

The software RDM manager is available on the ROBE website (https://www.robe.cz/support), product RUNIT WTX.

Green arrow ▶ saves changes made in the Control panel to the Appoli.

Manufacturer PIDs

LED calibration 4byte HEX! (RGBW/RGBA) - the item shows 4 bytes of calibration values for calibrated white colours of RGBW(RGBA) Appoli S.
E.g.

CTC channel has to be set to some calibrated white colour (21 DMX-1800K, 66 DMX-2700K, 91 DMX-3200K, 141 DMX-4200K, 211 DMX-5600K, 255 DMX-6500K) otherwise the item shows values "ff ff ff ff" (and calibration values cannot be saved to the Appoli S).
Warning!
Changing and saving values in this item will affect calibrated white colour(s) of the Appoli S .

WiFi unlink - the item is inactive for Appoli S.

Terminator active - the item allows you to terminate line of Appolis S at last Appoli S .

Example of RDM manager connection
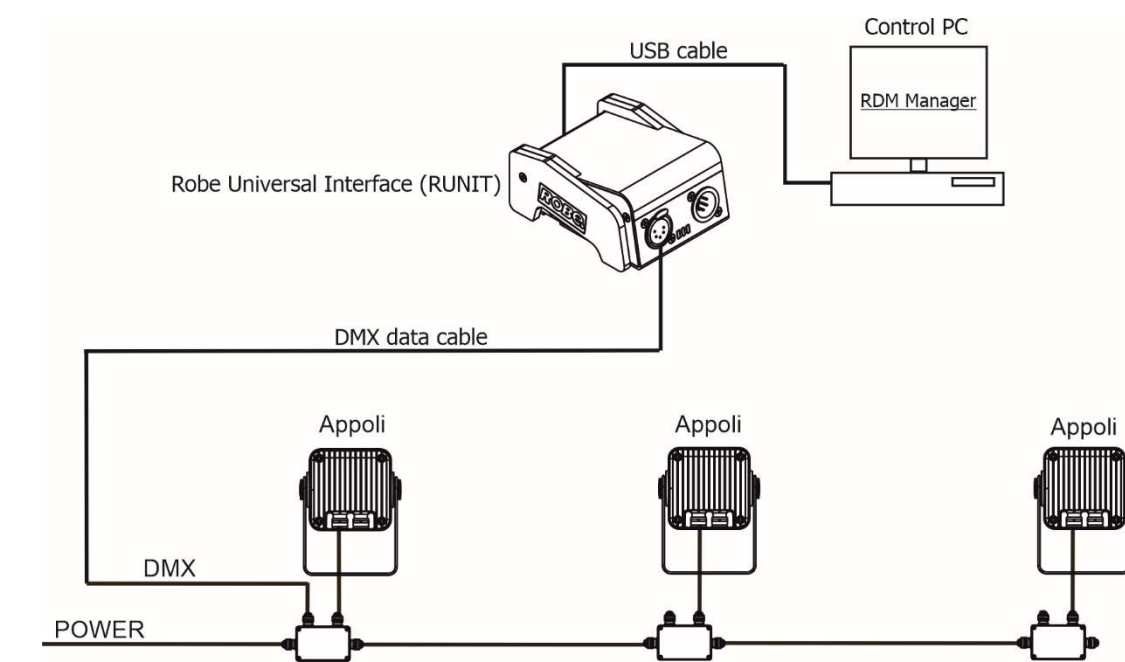
5. Software update

Software update of Appoli S modules has to be done by means of the software ROBE Uploader running on PC.
The ROBE Uploader is a software for automatized software update of ROBE fixtures. The ROBE Uploader switches Appolis to the update mode automatically.
Please see https://www.robe.cz/robe-uploader/ for more information.
For updating of Appoli modules, use the file Appoli.lib.

Examples of connection:
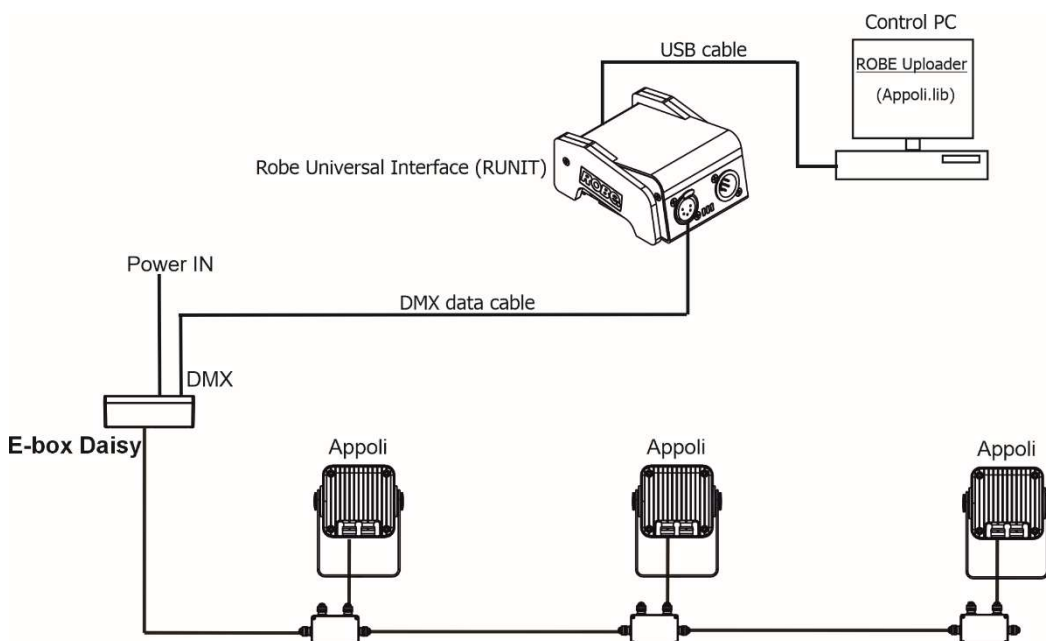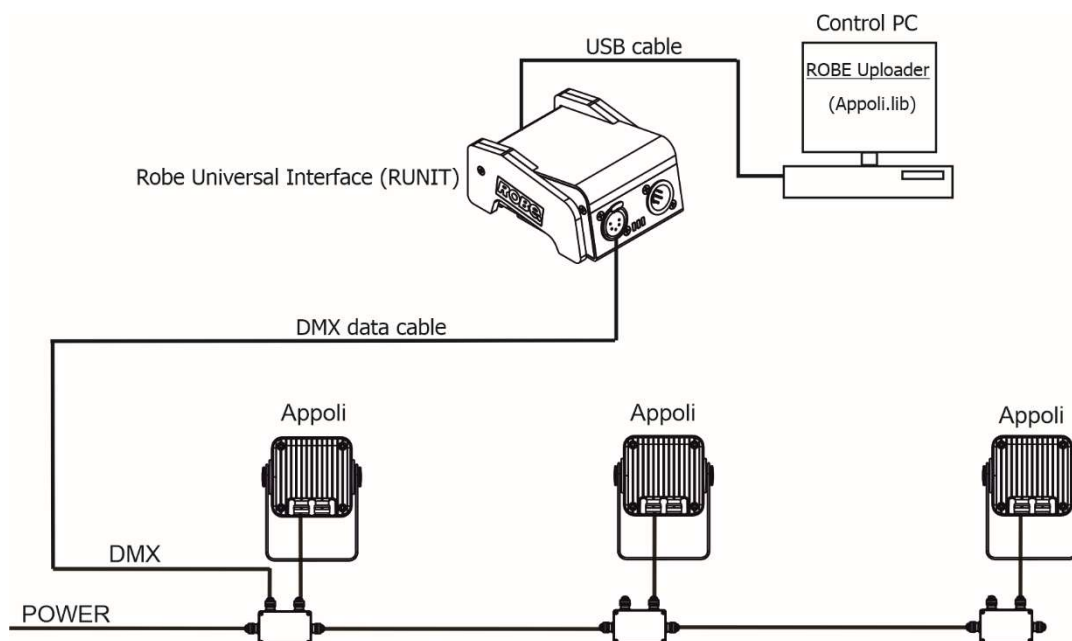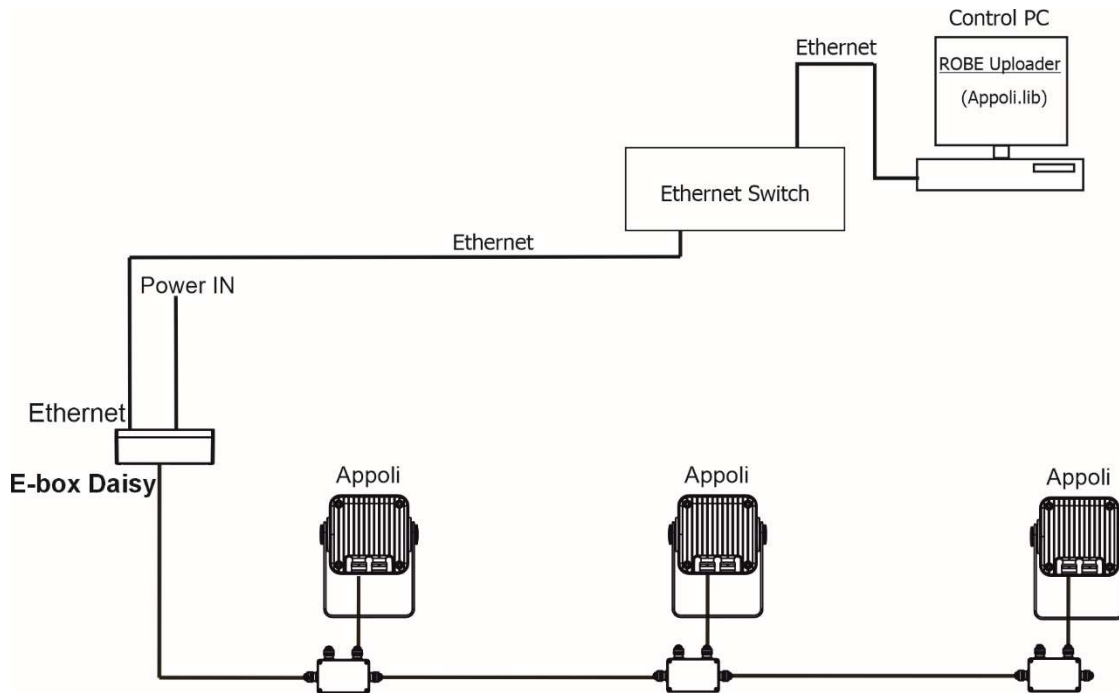
2. By means of the Ethernet connection. Connection via junction boxes.

6. Technical specifications

Power supply
- Electronic auto-ranging
- Input voltage: 120 - 277V AC, 50/60 Hz
- Power consumption: 30 W
- Inrush current: 60A/230VAC, 30A/115VAC

Optic
- Light source: 4 x high power multichip LEDs
- Colour variants: RGBW (W - 6500 K), RGBA, PW (W - 3000 K)
- Beam Angle:
   Symmetrical: 12°, 20°, 25°, 35°, 45°, 75°, 95°
   Bi-symmetrical: 15° x 35°, 15° x 70°, 15° x 85°, 20° x 45°, 35° x 65°, 35° x 95°
- Projected Lumen Maintenance: L90B10 >90.000 hrs, Ta = 25°C / 77°F

Control
- Interface protocols: DMX, RDM,
- Setting and addressing: E-box, RDM control

Compatible drivers
- E-box Daisy
   1 Output
   1 Main power Input
   Control: DMX, Art-Net, sACN , W-DMX control, RDM
   Pixel control
   120-277V Input
   Connection via terminal blocks, inlets via grommet
   IP67

- E-box Star
   6 outputs
   1 Main power Input
   Control: DMX, Art-Net, sACN , W-DMX control, RDM
   Pixel control
   120-277V Input
   Connection via terminal blocks, inlets via grommet
   IP67

- E-box Lite
   1 output
   1 Main power Input
   Control: DMX, W-DMX control, RDM
   Pixel control
   120-277V Input
   Connection via screw terminal blocks, inlets via grommet
   IP67

Mounting method
- Via yoke
- Adjustability: -14°/+40°

Housing
- High pressure die-cast aluminium body
- Tempered glass

Cooling system
- Convection

Total heat dissipation
- 77 BTU/h (calculated)

Protection factor
- CE: IP 67 (IP 66 junction box)
- US: Suitable for wet location

Impact rating
- IK10

Operating ambient temperature range
- -20°C /+50°C (-4°F /+122°F)

Connection - CE
- DMX connection - via Junction box
  - Appoli S IN: Flamar 3x AWG 16 + 1 x (2x AWG 24), Standard 1m with bare-end (P/N 1305 1508)
  - Interconnecting cables: Flamar 3x AWG 16 + 1 x (2x AWG 24) (P/N 1305 1508)
  - Junction box (P/N 1098 0714)

- DMX connection – via Junction box with panel connectors - for Appoli S/Calumma S-XL/Eminere (CE)
  - Appoli S IN: Flamar 3x AWG 16 + 1 x (2x AWG 24), Standard 1m with bare-end (P/N 1305 1508)
  - Leader cables: Leader Cable FF 2 m (P/N 13053438)
    - Leader Cable FF 5 m (P/N 13053440)
    - Leader Cable FF 10 m (P/N 13053436)
    - Leader Cable FF 25 m (P/N 13053437)
    - Leader Cable FF 50 m (P/N 13053439)
  - Jumper cables: Jumper Cable FF/FM 0,25 m (P/N1 3053422)
    - Jumper Cable FF/FM 0,5 m (P/N 13053423)
    - Jumper Cable FF/FM 1 m (P/N 13053425)
    - Jumper Cable FF/FM 2 m (P/N 13053427)
    - Jumper Cable FF/FM 3 m (P/N 13053428)
    - Jumper Cable FF/FM 5 m (P/N 13053430)
    - Jumper Cable FF/FM 10 m (P/N 13053424)
  - Junction box (P/N 1098 0714)
  - Junction box with panel connectors for Appoli S, Calumma S–XL / Eminere CE (P/N 10981268 for RAL9011)

- DMX connection - via IN/OUT connectors
  - Appoli S IN: Leader cable MM (P/N 13053493) with hybrid connector, standard 0.5 m
  - Appoli S OUT: Leader cable MF (P/N 13053494) with hybrid connector, standard 0.5 m
  - Leader cables: Leader Cable FF 2 m (P/N 13053438)
    - Leader Cable FF 5 m (P/N 13053440)
    - Leader Cable FF 10 m (P/N 13053436)
    - Leader Cable FF 25 m (P/N 13053437)
    - Leader Cable FF 50 m (P/N 13053439)
  - Jumper cables: Jumper Cable FF/FM 0,25 m (P/N1 3053422)
    - Jumper Cable FF/FM 0,5 m (P/N 13053423)
    - Jumper Cable FF/FM 1 m (P/N 13053425)

Jumper Cable FF/FM 2 m (P/N 13053427)
Jumper Cable FF/FM 3 m (P/N 13053428)
Jumper Cable FF/FM 5 m (P/N 13053430)
Jumper Cable FF/FM 10 m (P/N 13053424)

- • DMX or Ethernet connection - via E-box and Junction box
  Appoli S IN: Flamar 3x AWG 16 + 1x (2x AWG 24), standard 1m with bare-end (P/N 1305 1508)
  Interconnecting cables: Flamar 3x AWG 16 + 1 x (2x AWG 24), (P/N 1305 1508)
  Junction box (P/N 1098 0714)

Connection - US

- • DMX connection – via Junction box with panel connectors - for Appoli S/Calumma S-XL/Eminere (US)
  Appoli S IN: SJTW 6x 14AWG ,standard 1m with bare-end (P/N 1305 3480)
  Leader cables: Leader Cable FF 2 m (P/N 13053438)
  Leader Cable FF 5 m (P/N 13053440)
  Leader Cable FF 10 m (P/N 13053436)
  Leader Cable FF 25 m (P/N 13053437)
  Leader Cable FF 50 m (P/N 13053439)
  Jumper cables: Jumper Cable FF/FM 0,25 m (P/N1 3053422)
  Jumper Cable FF/FM 0,5 m (P/N 13053423)
  Jumper Cable FF/FM 1 m (P/N 13053425)
  Jumper Cable FF/FM 2 m (P/N 13053427)
  Jumper Cable FF/FM 3 m (P/N 13053428)
  Jumper Cable FF/FM 5 m (P/N 13053430)
  Jumper Cable FF/FM 10 m (P/N 13053424)
  Junction box (P/N 1098 0714)
  Junction box with panel connectors for Appoli S, Calumma S–XL / Eminere US (P/N 10981269 for RAL9011)

- • DMX or Ethernet connection - via E-box and Junction box
  Appoli S IN: SJTW 6x 14AWG ,standard 1m with bare-end (P/N 1305 3480)
  Interconnecting cables: SJTW 6x 14AWG ,(P/N 1305 3480)
  Junction box (P/N 1098 0714)

Weight
- • Appoli S MC: 3.0 kg (6.6 lbs)

Dimensions (All dimensions in mm [inch])

124 [4 7/8"]
192 [7 9/16"]
124 [4 7/8"]

14°

220°

142 [5 9/16"]

146 [5 3/4"]
153 [6 1/16"]

Ø 13[1/2"]

Appoli S

Junction box

57 [2 1/4"]

26 [1"]

190 [7 1/2"]

125 [4 15/16"]

50 [1 15/16"]

110 [4 5/16"]

80 [3 1/8"]

52 [2 1/16"]

Ø 4.6[3/16"]

113 [4 7/16"]

Appoli S

Junction box with panel connectors

23
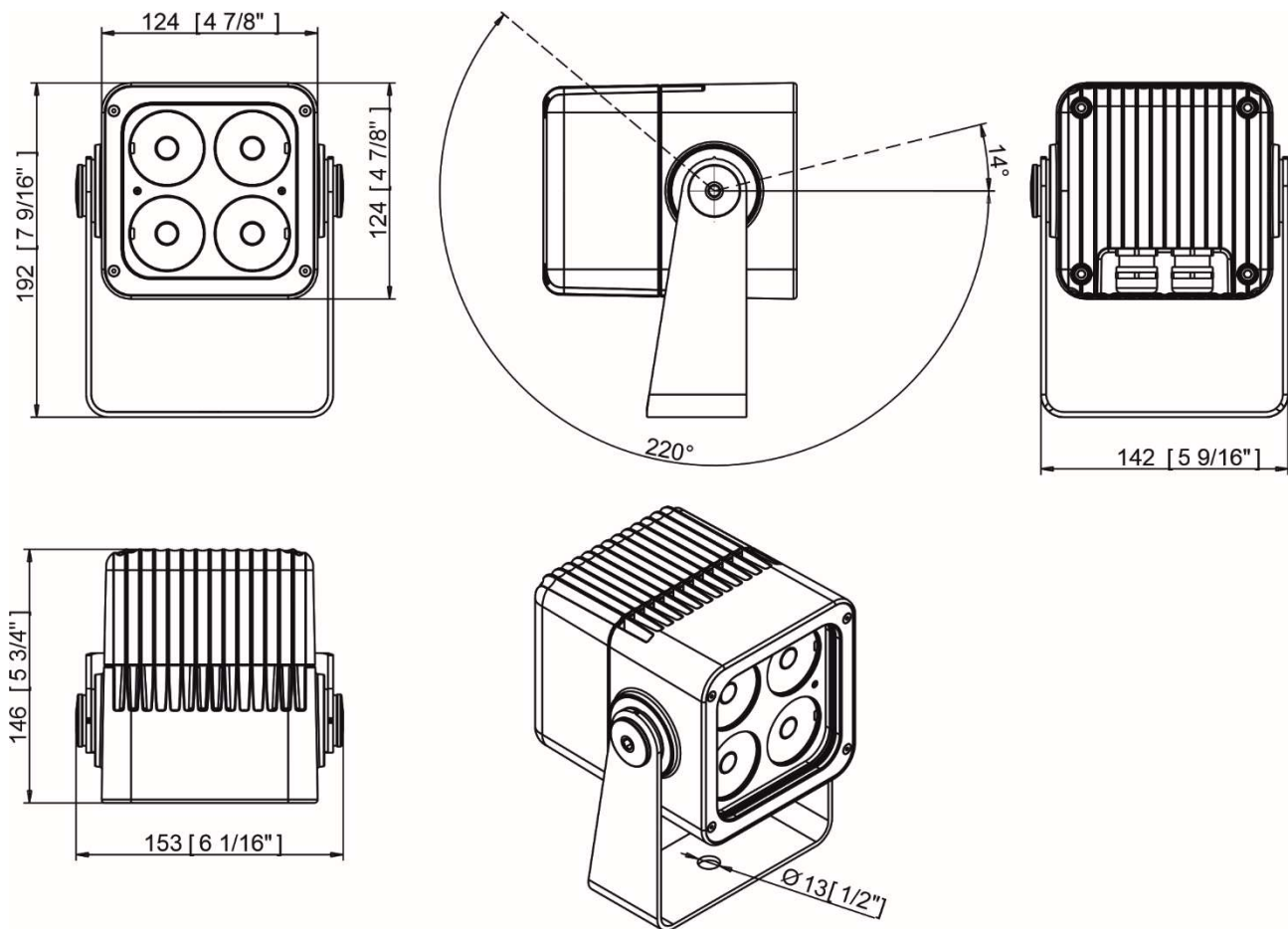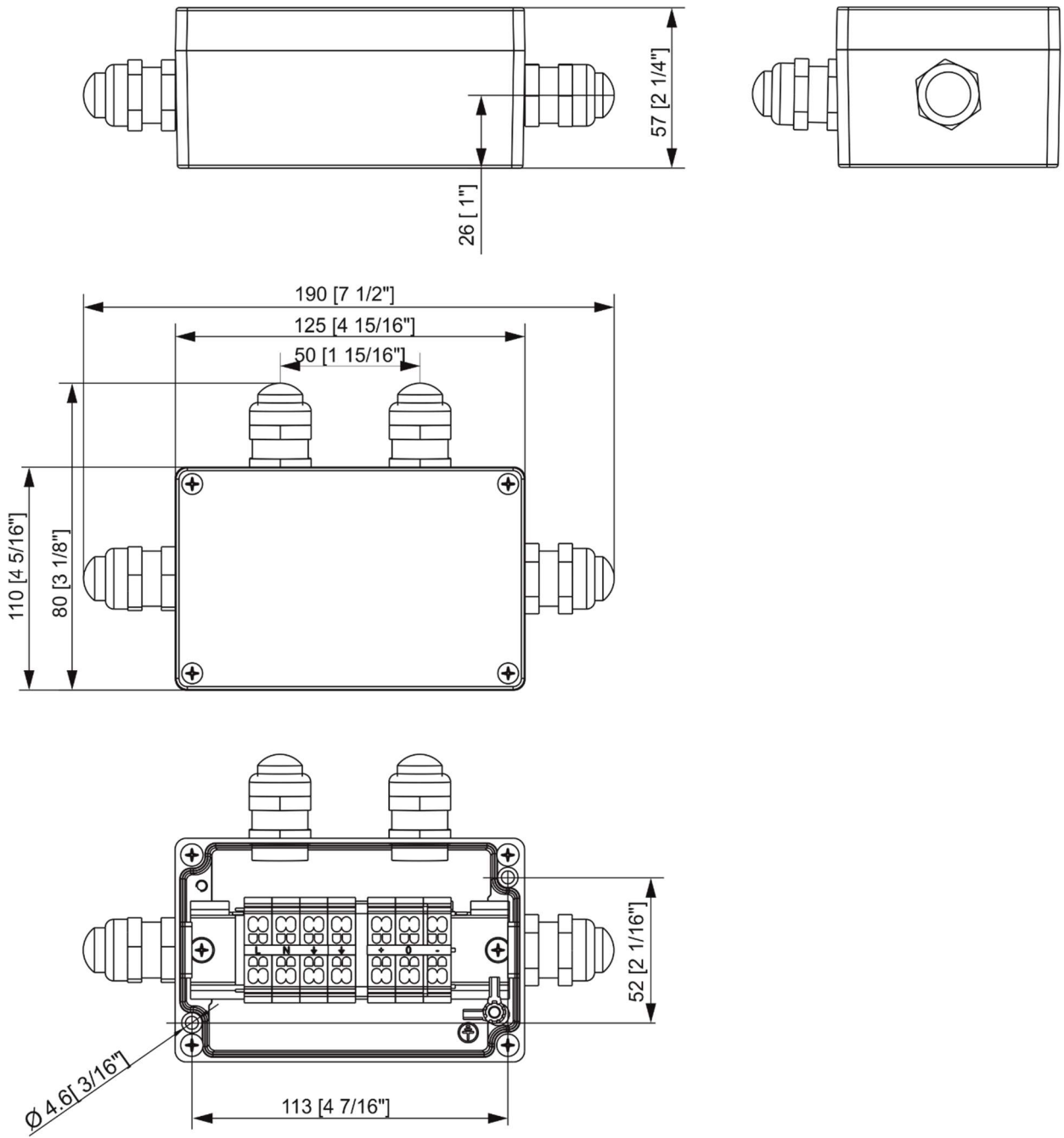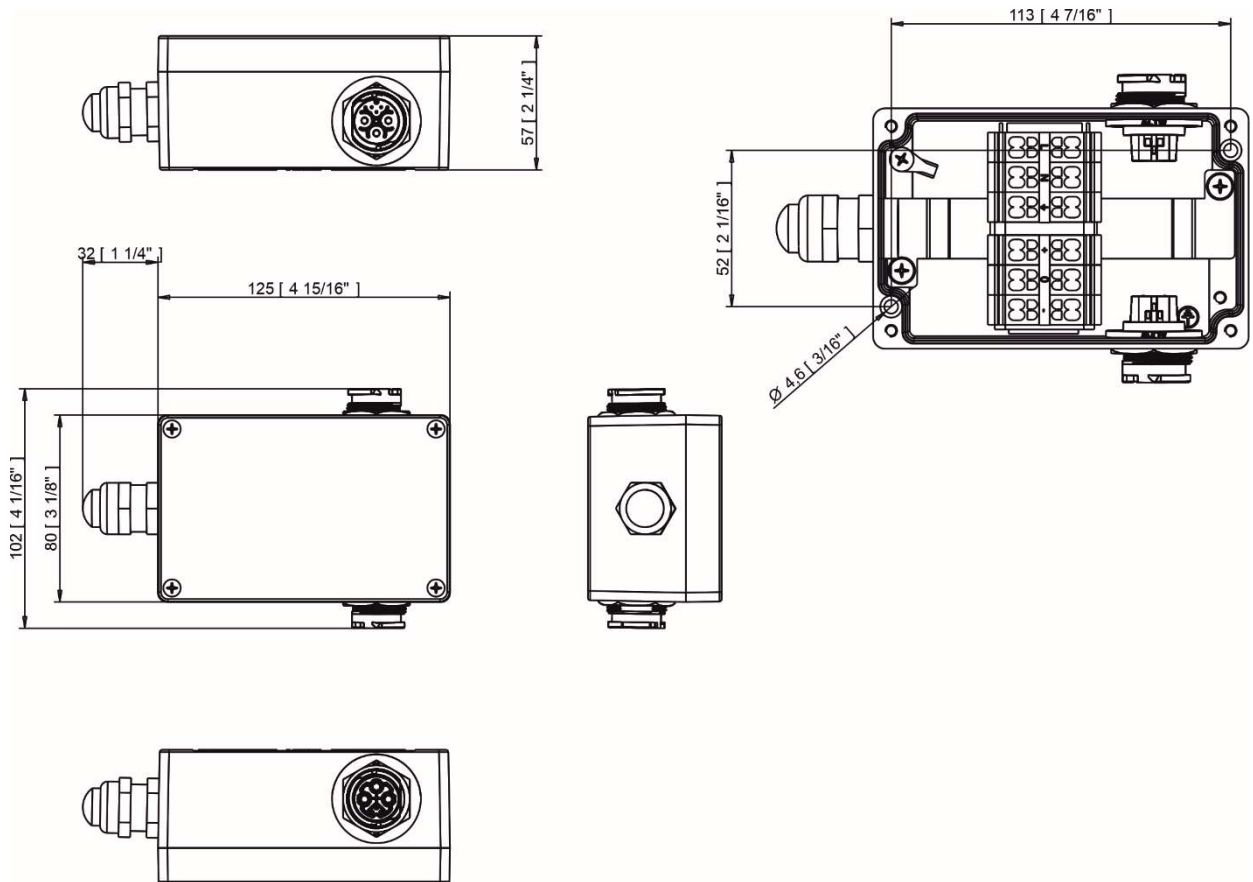
Included items
- 1 x Appoli S MC
- 1 x User manual

Optional accessories
Junction Box for Calumma, 1x Output, Ral 9006 (P/N 10980757)
Junction Box for Calumma, 1x Output, Ral 9011 (P/N 10980714)
Junction Box w/Panel Connector CE RAL9011 (P/N 10981268)
Junction Box w/Panel Connector US RAL9011 (P/N 10981269)
Junction Box w/Panel Connector CE RAL9007 (P/N 10981295)
Junction Box w/Panel Connector CE RAL8004 cus (P/N 10981326)
Junction Box w/Panel Connector US RAL1013 (P/N 10981358)
E-box Daisy (P/N 10063655)
E-box Daisy/W (P/N 10063638)
E-box Lite (P/N 10063657)
E-box Lite/W (P/N 10063653)
E-box Star (P/N 10063656)
E-box Star/W (P/N 10063644)
Pole clamp adaptor RAL 9011 (P/N 10980783) - Yoke for Pole Adaptor Required
Optical Foil Set for Outdoor Foil Holder Appoli S
Outdoor Foil Holder for Appoli S
Top Hat for Appoli S
Half Top Hat for Appoli S
Floor Stand for Appoli S
Barndoors for Appoli S

7. Cleaning and maintenance

> ***DANGER !***
> ***Disconnect from the mains before starting any maintenance or cleaning work***

Rinse off loose dirt with low pressure water spray. Wash the housing with a soft brush or sponge and a mild, non-abrasive washing detergent. Rinse it.
Maintenance and service operations are only to be carried out by a qualified person.
Should you need any spare parts, please use ROBE OEM parts.

7.1 Disposing of the product
To preserve the environment please dispose or recycle this product at the end of its life according to the local regulations and codes.

8. ChangeLog

This section summarizes changes in the user manual.

Version of manual	Date of issue	Description of changes

Specifications are subject to change without notice.
January 15, 2026
Made in CZECH REPUBLIC by ROBE LIGHTING s.r.o. Palackeho 416/20 CZ 75701 Valasske Mezirici

DMX protocol for Appoli MC - All sizes

Version: 1.0 (16 modes in total)

Mode/Channels in all									
1	**2**	**3**	**4**	**5**	**6**	**7**	**8-10**	Mode 1- RGBW(A)-8bit, Mode 2- RGB 8-bit, Mode 3- full RGBW(A)	
4	3	12	3	6	8	15	Reserved	Mode 4- White-full control, Mode 5- Reduced RGBW(A)	
								Mode 6- Reduced RGBW(A)+white control, Mode 7- Full control	
								Mode 7-Full RGBW(A)+virt. Colour wheel	

RGBW/RGBA/RGB modes

Mode/channels							DMX Value	Function	Type of control
1	**2**	**3**	**4**	**5**	**6**	**7**			
-	-	-	-	-	-	1		**Special functions**	
							0	No function	step
								To activate following functions , stop in DMX value for at least 3 sec.	
							1-2	Save current DMX values to fixture as initial DMX values.	step
							3-4	Show saved initial DMX values	step
							5-6	Run factory demo sequences at switching fixture on (without DMX)	step
							7-8	Insect friendly light On (RGBA version only)	step
							9-10	Insect friendly light Off (RGBA version only)	step
							11-255	Reserved	
1	1	1	-	1	1	2		**Red**	
							0 - 255	Red LEDs saturation control (0-100%)	proportional
-	-	2	-	-	-	3		**Red Fine**	
							0 - 255	Red LEDs saturation control fine	proportional
2	2	3	-	2	2	4		**Green**	
							0 - 255	Green LEDs saturation control (0-100%)	proportional
-	-	4	-	-	-	5		**Green Fine**	
							0 - 255	Green LEDs saturation control fine	proportional
3	3	5	-	3	3	6		**Blue**	
							0 - 255	Blue LEDs saturation control (0-100%)	proportional
-	-	6	-	-	-	7		**Blue Fine**	
							0 - 255	Blue LEDs saturation control fine	proportional
4	-	7	-	4	4	8		**White (Amber)**	
							0 - 255	White LEDs saturation control (0-100%)	proportional
-	-	8	-	-	-	9		**White (Amber) Fine**	
							0 - 255	White LEDs saturation control fine	proportional
-	-	9	1	-	5	10		**Green correction**	
							0	Uncorrected white	step
							1-127	Minus green - uncorrected white	proportional
							128	Uncorrected white (128=default)	step
							129-255	Uncorrected white - Plus green	proportional
-	-	10	2	-	6	11		**Colour temperature correction (CTC)**	
							0	No function	step
							1 - 10	Tungsten dimming 2700 K	step
							11 - 20	Tungsten dimming 3200 K	step
							21-255	Colour temperature changing from 1800 K --> 6500 K	proportional
								(21-1800K, 66-2700K, 91-3200K,141-4200K, 211-5600K, 255-6500K)	
-	-	-	-	-	-	12		**Virtual Colour Wheel**	
							0	No function	step

DMX protocol

Mode/channels							DMX Value	Function	Type of control
1	2	3	4	5	6	7			
							1-2	White 1800 K	step
							3-4	White 2700 K	step
							5-6	White 3200 K	step
							7-8	White 4200 K	step
							9-10	White 5600 K	step
							11-12	White 6500 K	step
							13	Blue (Blue=full, Red+Green+White/Amber=0)	step
							14-23	Red=0, Green->up,Blue =full, White/Amber=0	proportional
							24	Cyan (Red=0, Green=full, Blue =full, White/Amber=0)	step
							25-34	Red=0, Green=full, Blue->down, White/Amber=0	proportional
							35	Green (Red=0, Green=full, Blue =0, White/Amber=0)	step
							36-45	Red->up, Green=full, Blue=0, White/Amber=0	proportional
							46	Yellow (Red=full, Green=full, Blue=0, White/Amber=0)	step
							47-56	Red=full, Green->down, Blue=0, White/Amber=0	proportional
							57	Red(Red=full, Green=0, Blue=0, White/Amber=0)	step
							58-67	Red=full, Green=0, Blue->up, White/Amber=0	proportional
							68	Magenta (Red=full, Green=0, Blue=full, White/Amber=0)	step
							69-78	Red -> down, Green=0, Blue=full, White/Amber=0	proportional
							79	Blue (Red=0, Green=0, Blue=full, White/Amber=0)	step
								Transition effects	
							80-87	Rainbow effect (with fade time) from slow-> fast	proportional
							88-95	Rainbow effect (without fade time) from slow-> fast	proportional
							96-103	Full dynamic white (1800K->6500K->1800K) (with fade time) from slow-> fast	proportional
							104-111	Full dynamic white (1800K->6500K->1800K) (without fade time) from slow-> fast	proportional
							112-119	Dynamic warm white (1800K-3000K-1800K) (with fade time) from slow-> fast	proportional
							120-127	Dynamic warm white (1800K-3000K-1800K) (without fade time) from slow-> fast	proportional
							128-135	Rainbow effect + full dynamic white (with fade time) from slow-> fast	proportional
							136-143	Rainbow effect + full dynamic white (without fade time) from slow-> fast	proportional
							144-151	Blue/Green effect (with fade time) from slow-> fast	proportional
							152-159	Blue/Green effect (without fade time) from slow-> fast	proportional
							160-167	Red/Blue effect (with fade time) from slow-> fast	proportional
							168-175	Red/Blue effect (without fade time) from slow-> fast	proportional
							176-183	Green/Red effect (with fade time) from slow-> fast	proportional
							184-191	Green/Red effect (without fade time) from slow-> fast	proportional
							192-199	Blue/4000K effect (with fade time) from slow-> fast	proportional
							200-207	Blue/4000K effect (without fade time) from slow-> fast	proportional
							208-215	Green/4000K effect (with fade time) from slow-> fast	proportional
							216-223	Green/4000K effect (without fade time) from slow-> fast	proportional
							224-231	Red/4000K effect (with fade time) from slow-> fast	proportional
							232-239	Red/4000K effect (without fade time) from slow-> fast	proportional
						13		**Shutter/Strobe**	
							0-31	Shutter closed	step
							32-63	Shutter open	step
							64-95	Strobe-effect from slow to fast	proportional

Mode/channels							DMX Value	Function	Type of control
1	2	3	4	5	6	7			
							96-127	Shutter open	step
							128-143	Opening pulse in sequences from slow to fast	proportional
							144-159	Closing pulse in sequences from fast to slow	proportional
							160-191	Shutter open	step
							192-223	Random strobe-effect from slow to fast	proportional
							224-255	Shutter open	step
-	-	11	3	5	7	14		**Dimmer**	
							0 - 255	Light intensity coarse (0-100%)	proportional
-	-	12	-	6	8	15		**Dimmer Fine**	
							0 - 255	Light intensity fine	proportional

All Specifications subject to change without notice

DMX protocol for Appoli MC - All sizes

Version: 1.0 (16 modes in total)

Mode/Channels in all				TW Modes: Mode 11- White selection + Dimmer, Mode 12- WW + CW	
11	12	13	14-16	PW Mode: Mode 13- Dimmer	
3	4	2	Reserved		

Mode/channels			DMX Value	TW and PW modes	
11	12	13		Function	Type of control
1	-	-		**White colour selection**	
			0 - 255	White from 2700 K - 6500 K	proportional
-	1	-		**Warm White**	
			0 - 255	Warm White LEDs saturation control (0-100%)	proportional
-	2	-		**Cool White**	
			0 - 255	Cool White LEDs saturation control (0-100%)	proportional
2	3	1		**Dimmer**	
			0 - 255	Light intensity coarse (0 - 100%)	proportional
3	4	2		**Dimmer Fine**	
			0 - 255	Light intensity fine	proportional

All Specifications subject to change without notice