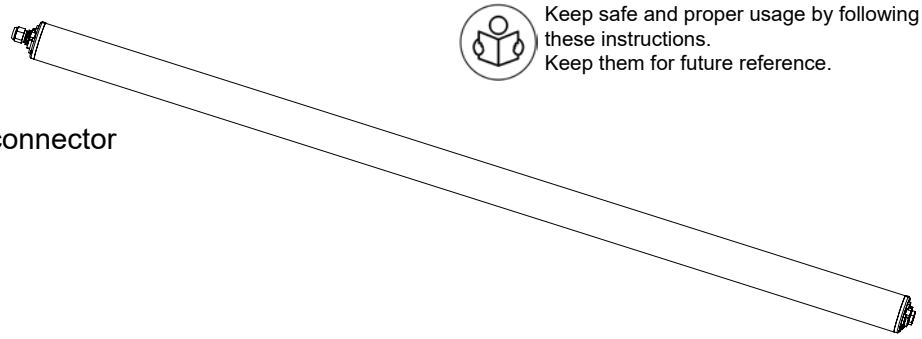
AQUA-70-EX1/21
Technical conditions for mounting luminaire
ENG

AQUA-70-EX1/21
FTZÚ 17 ATEX 0052X
Ⓔx II 2G Ex eb mb IIC T4 Gb
Ⓔx II 2G Ex eb db mb IIC T4 Gb - with disconnector
Ⓔx II 2D Ex tb IIIC T85°C Db

IP66/IP68 15m, insulation class I



Keep safe and proper usage by following these instructions.
Keep them for future reference.

These luminaires comply with the requirements of Government Regulation No. 116/2016 Coll., as amended (Directive 2014/34/EU).
They are intended for use in explosive atmospheres as specified in the following table:

Hazardous area	Designation of external influences	Classification of areas	
		Designation	Establishing regulation
Danger of explosion of inflammable dusts	BE3N1	ZONE 21, ZONE 22	EN 60079-14 EN 60079-10-2
Danger of explosion of inflammable gases and vapours	BE3N2	ZONE 1, ZONE 2	EN 60079-14 EN IEC 60079-10-1

Permissible operating temperature range:

Type	Ta	Ta 110 V	W	Temperature class	Maximum surface temperature
AQUA-70-EX1/21-I-L11-γγγ-2200-0ND/D2-ζζ-PG	-20°C - +55°C		16	T4	T85°C
AQUA-70-EX1/21-I-L11-γγγ-2750-0ND/D2-ζζ-PG	-20°C - +55°C		19		
AQUA-70-EX1/21-I-L11-γγγ-4000-0ND/D2-ζζ-PG	-20°C - +55°C		26		
AQUA-70-EX1/21-I-L17-γγγ-4500-0ND/D2-ζζ-PG	-20°C - +50°C	-20°C - +45°C	27		
AQUA-70-EX1/21-I-L17-γγγ-5500-0ND/D2-ζζ-PG	-20°C - +50°C	-20°C - +45°C	34		
AQUA-70-EX1/21-I-L17-γγγ-8000-0ND/D2-ζζ-PG	-20°C - +50°C	-20°C - +45°C	50		

AQUA-70-EX1/21-I-Lββ-γγγ-δδδ00-εεεε-ζζ-PG - IP66 - according to the standards EN IEC 60079-0
IP68 - according to the standards EN 60529

ⓘ The explanation of the luminaire markings (0ND, 0D2) can be found on page 7 of this manual.

Nominal voltage and frequency:
for LED drivers BAREL HFX BG2: 110-127V 50/60Hz, 110-127V DC
220-254V 50/60Hz, 220-250V DC

Luminaire marking:

VYRTYCH
Židněves 116, 294 06 Březno, Czech Republic
① **AQUA-70-EX1/21-Lββ-γγγ-δδδ00-εεεε-ζζ-PG**
② 220-254V, 50/60Hz, 220-250V DC, class I, 26W
③ -20°C≤ta≤+55°C, IP66/ IP68 15m
④ FTZÚ 17 ATEX 0052X
⑤ Ⓔx II 2G Ex eb mb IIC T4 Gb
⑥ Ⓔx II 2D Ex tb IIIC Txx°C Db
⑦ art.n.: 61 379 ⑧ Product Type: V011304019-84AA0PD660000S
⑨ 1026
⑩ 123456

Luminaire marking:

1. Name of the luminaire
AQUA-70 - name of the luminaire
EX1/21 - luminiare certified for zone 1/21
I - internal marking
Lββ - luminiare lenght
γγγ - CRI/ CCT
δδδ00 - designation of the luminous flux of the LED source
εεεε - connection type
ζζ - internal marking
PG - clear polycarbonate cover + diffuser LED module
2. Designation of the operating voltage,frequency,insulation class of the luminaire power
3. Designation of the allowable ambient temperature range and luminaire IP protection rating
4. Certificate designation
- FTZÚ - abbreviation of the certification authority that issued the certificate
- 17 - year of issunace of the certificate
- ATEX / IECEx - abbreviation of certificate type
- 00052X - certificate number

5. Luminaire protection marking against the risk of explosion from flammable gases and vapors
6. Luminaire protection marking against the risk of dust explosion
7. Item number
8. Luminaire product number
9. Notified body number
10. Lin code

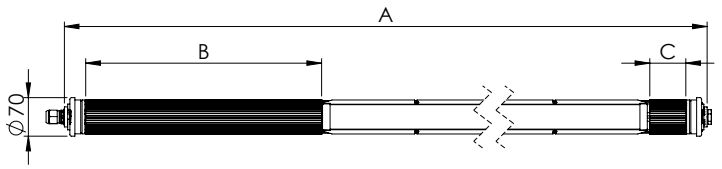
ⓘ The luminaire marking methodology is also available on our website. To view it, scan the QR code on page 7 of this manual.

Maximum number of lights connected to a circuit breaker: Maximal short circuit current must not be higher than 10kA.

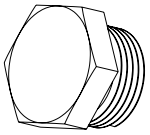
	B10A	B16A
AQUA-70-EX1/21-I-L17-γγγ-δδδ00-0ND/0D2-ζζ-μμ	15	40
AQUA-70-EX1/21-I-L11-γγγ-δδδ00-0ND/0D2-ζζ-μμ		

Luminaire dimensions:

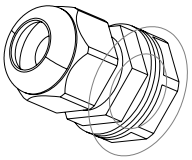
Type	A [mm]	B [mm]	C [mm]
AQUA-70-EX1/21-I-L11-γγγ-δδδ00-εεεε-ζζ-μμ	1149	425	65
AQUA-70-EX1/21-I-L17-γγγ-δδδ00-εεεε-ζζ-μμ	1709	425	65



Standard equipment:



1x Ex plastic
cable plug M20



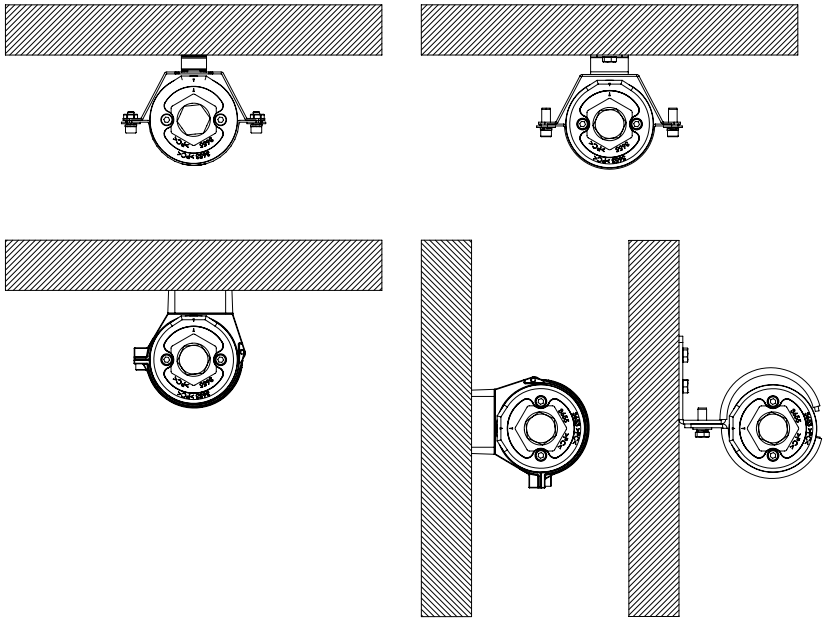
1x Ex plastic
cable gland M20

The luminaire is normally equipped with 2x openings Ø 20 mm. The wall thickness of the luminaire is 6 mm.

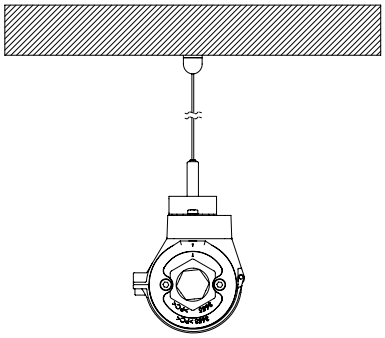
When using your own cable glands, they must comply with the required type of seal, IP protection rating, temperature range (the same as for the glands we supply), and other technical parameters. Always carry out the installation according to the installation instructions provided by the gland manufacturer. In case of any doubts, please contact technical support at: podpora@vyrtych.cz.

Types of mounting:

With mounting bracket directly to the supporting surface

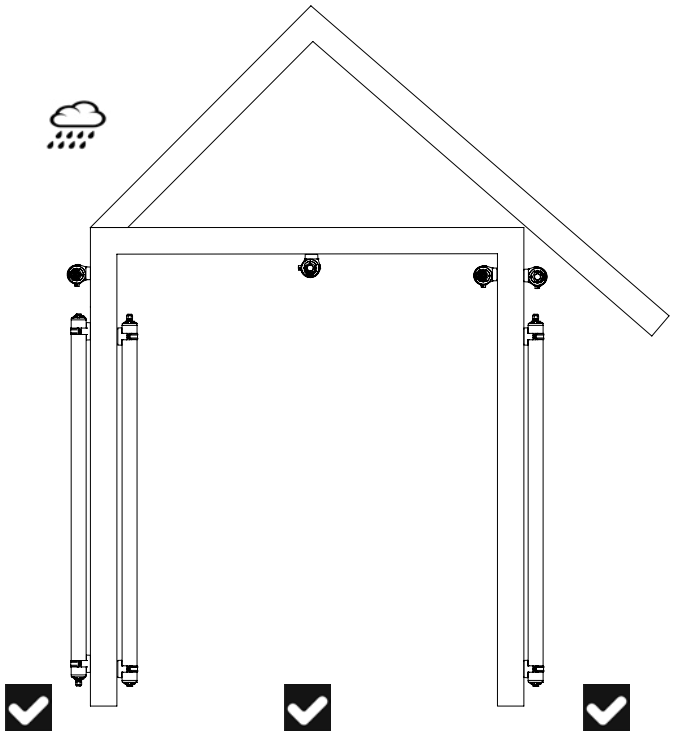


With cable hanger

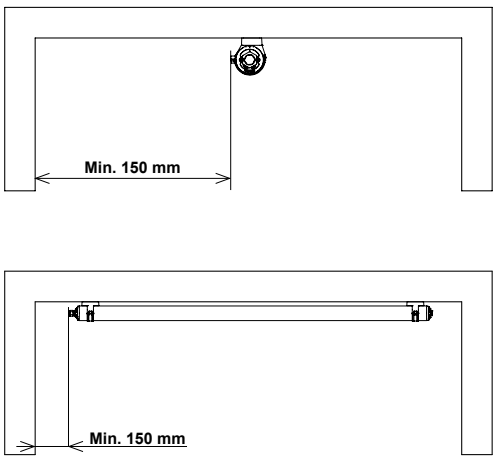


Picture 1
Conditions of outdoor assembly

The light fixture can be installed in both covered and uncovered outdoors areas

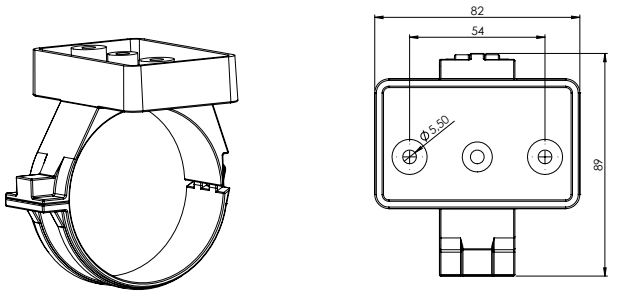


Minimum distance of the light fixture from the wall



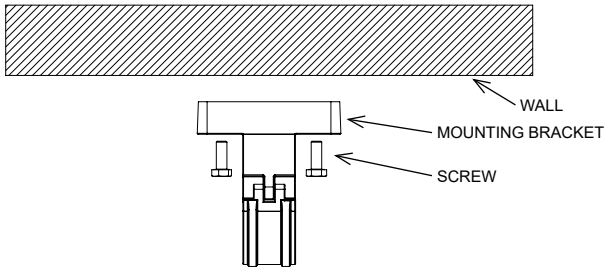
Mounting procedure using mounting brackets directly to the supporting surface:

1

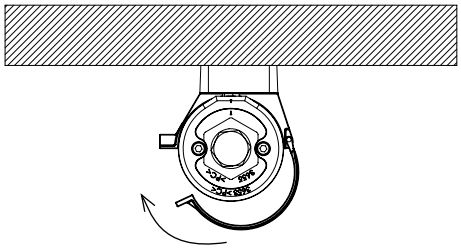


75081 - Set of mounting brackets AQUA-70, dark grey (2 pcs)
75082 - Set of mounting brackets AQUA-70, bright grey (2 pcs)

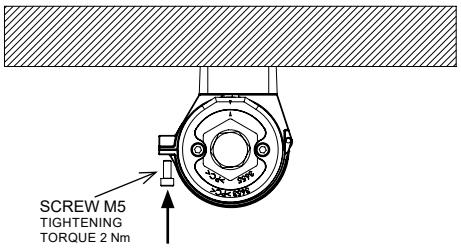
2



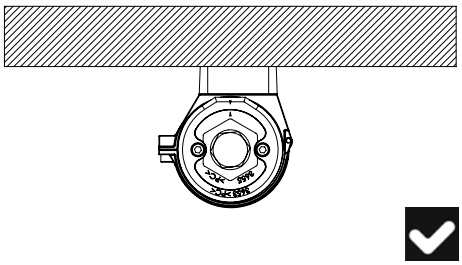
3



4

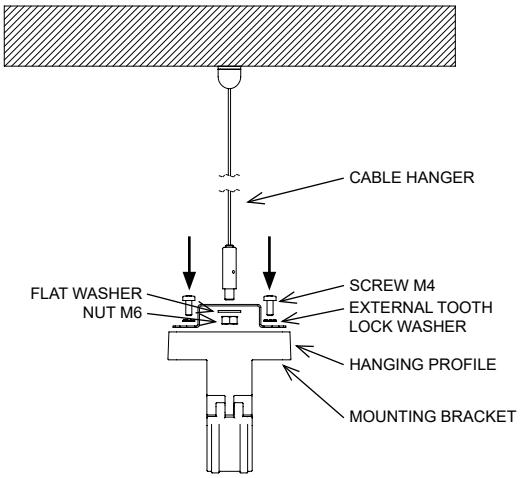


5



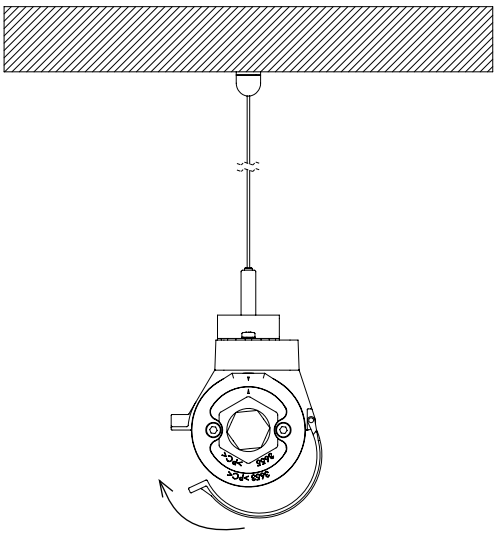
Mounting procedure using cable hanger:

1

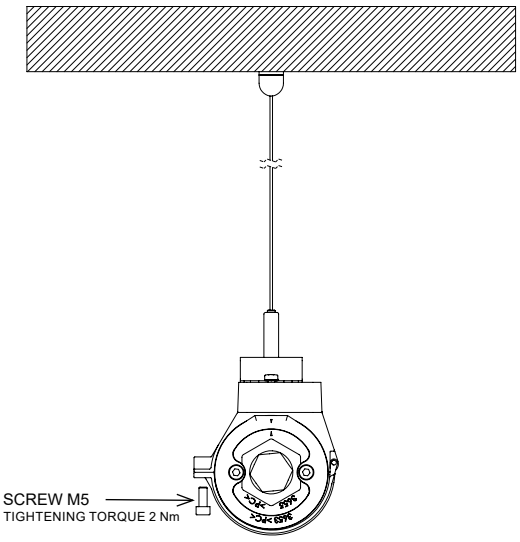


3578 - Cable suspender AQUA-70 stainless steel AISI304 (2 pcs)
75080 - Set of mounting brackets AQUA-70, stainless steel (2 pcs)
75081 - Set of mounting brackets AQUA-70, dark grey (2 pcs)
75082 - Set of mounting brackets AQUA-70, bright grey (2 pcs)

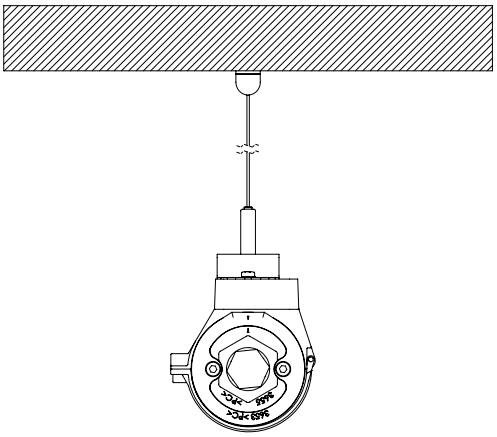
2



3

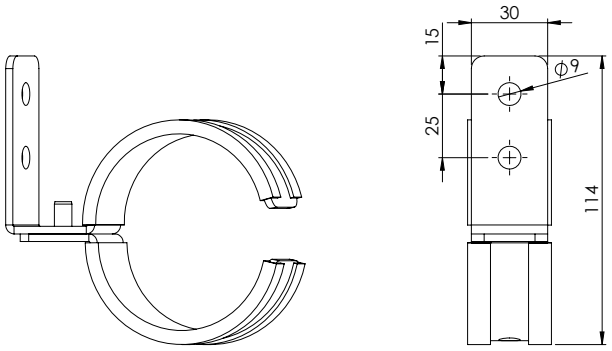


4



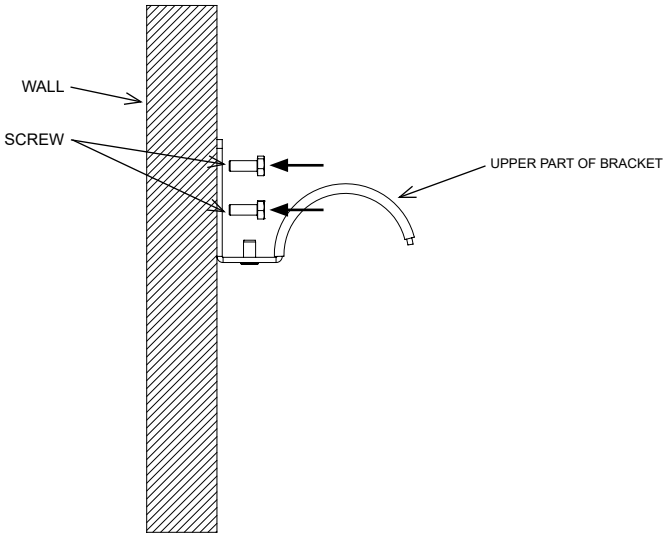
Mounting procedure using mounting brackets directly to the supporting surface:

1

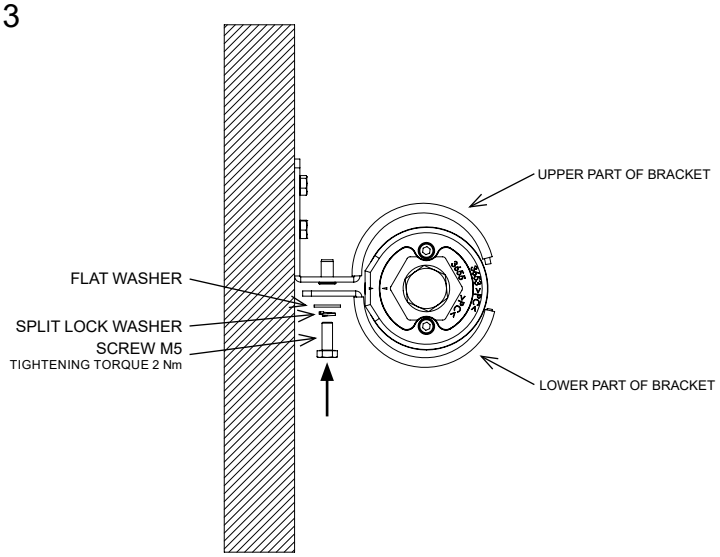


75079 - Set of mounting brackets AQUA-70, stainless steel (2 pcs)

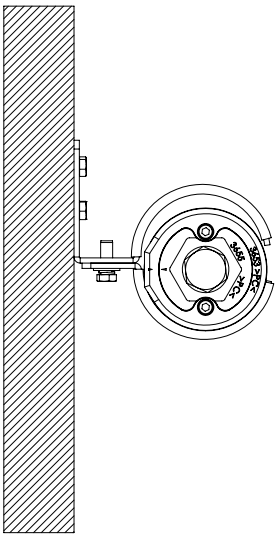
2



3

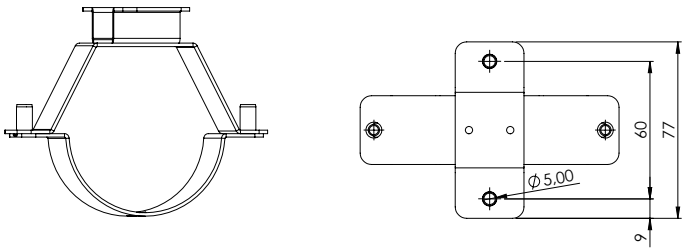


4



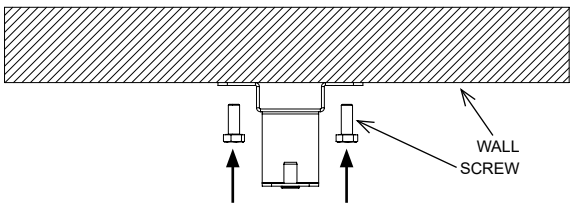
Mounting procedure using mounting brackets directly to the supporting surface:

1

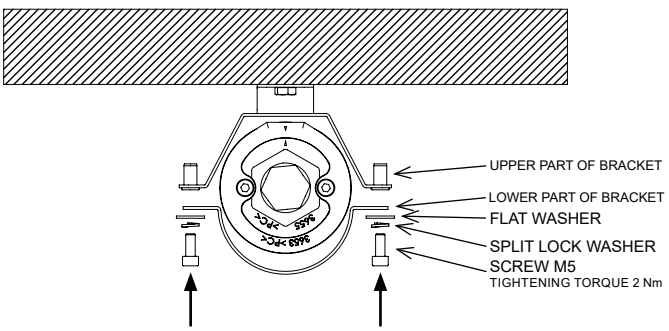


75080 - Set of mounting brackets AQUA-70, stainless steel (2 pcs)

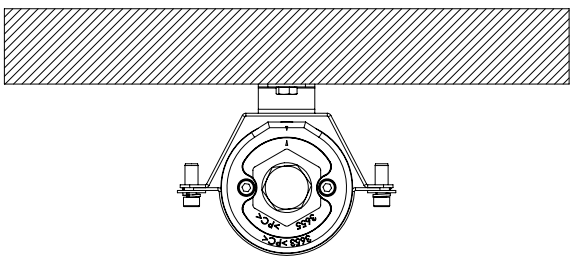
2



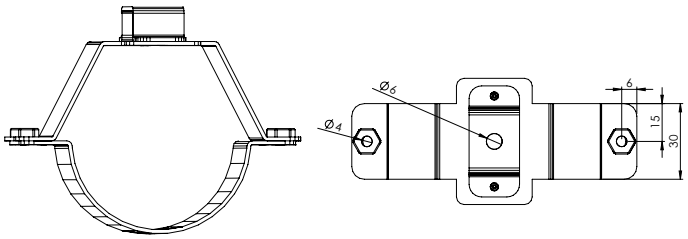
3



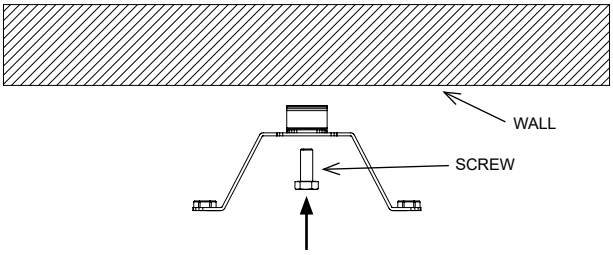
4

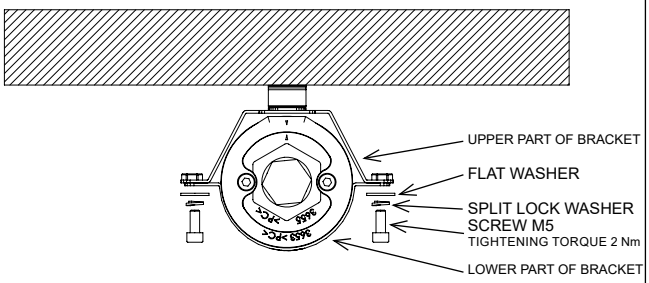


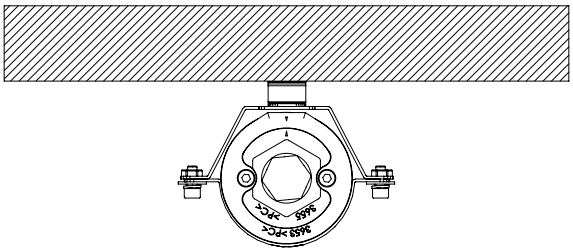
Mounting procedure using an M8 eye screw:



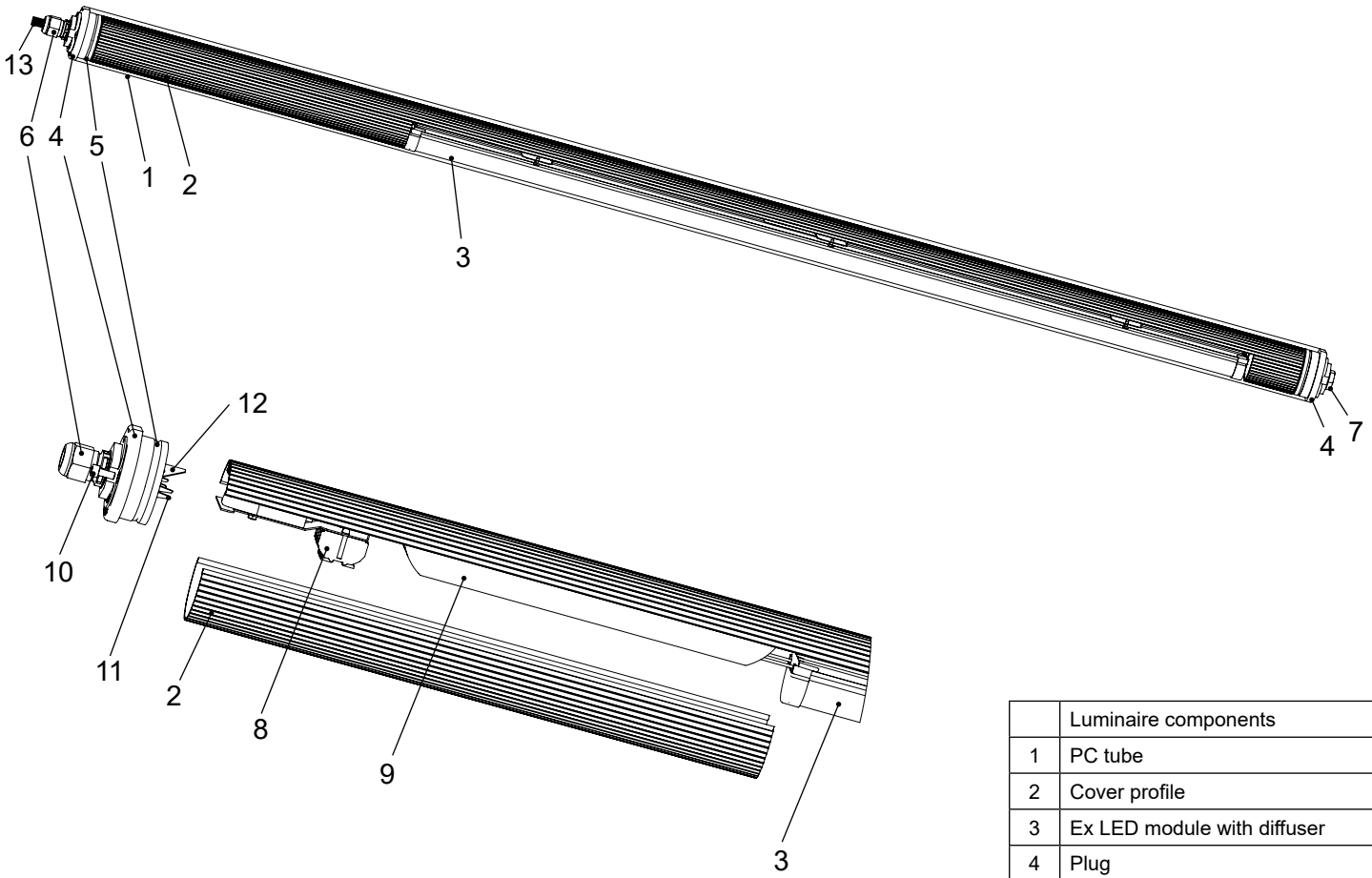
80596 - Set of mounting bracket AQUA-70, stainless steel (2 pcs), for direct surface mounting







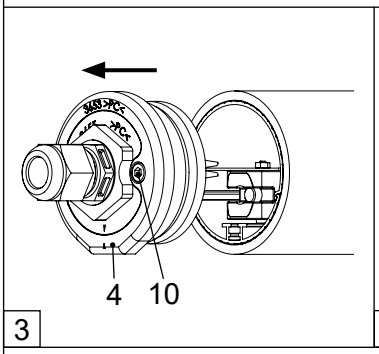
Luminaire construction



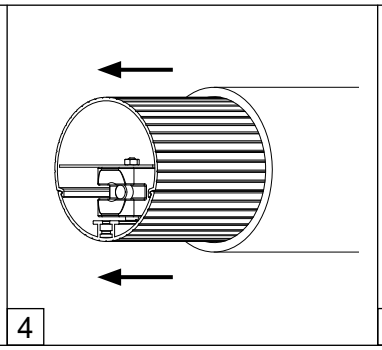
	Luminaire components
1	PC tube
2	Cover profile
3	Ex LED module with diffuser
4	Plug
5	O-ring
6	Ex cable gland
7	Ex cable plug
8	Ex terminal block
9	Ex LED driver
10	Stainless screw M5
11	Latches on the plug
12	Disconnecting plate of disconnector
13	Supply cable

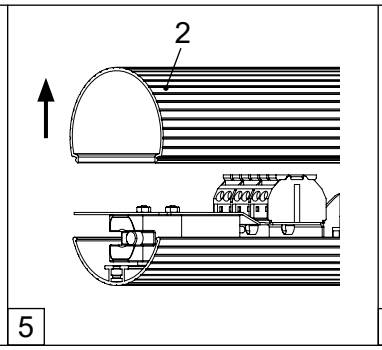
Installation instructions:

1. Remove protective foil from the tube (1).
2. Attach the luminaire to plastic or metal mounting bracket. The screws on mounting bracket tighten with torque 2Nm.
3. Loosen the two hex socket screws (10) on the housing end cap (4) and remove the end cap from the housing.
4. Slide the aluminium profile out of the housing far enough to allow removal of the cover profile (2) above the terminal block.
5. Remove the cover profile.
6. Loosen the cable gland. Feed the supply cable (13) through the cable gland.

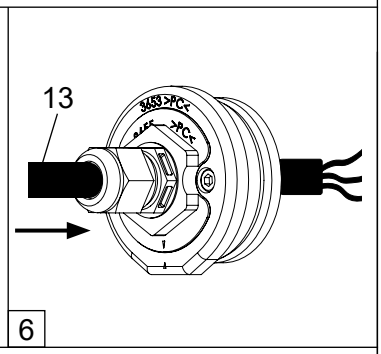


3


4

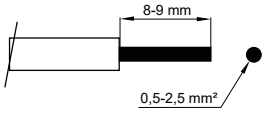


5



6

7. Connect the supply cable to the free part of the supply terminal block (8) as follows:

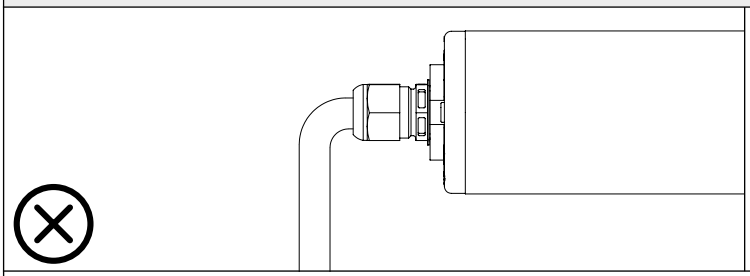
CLAMP	TYPE OF LUMINAIRE		STRIPPING THE WIRE
	0ND	0D2	
L1	phase wire	phase wire	
L2	-	-	
DA+	-	DALI +	
DA-	-	DALI -	
N	neutral wire	neutral wire	
⏚	protective wire	protective wire	

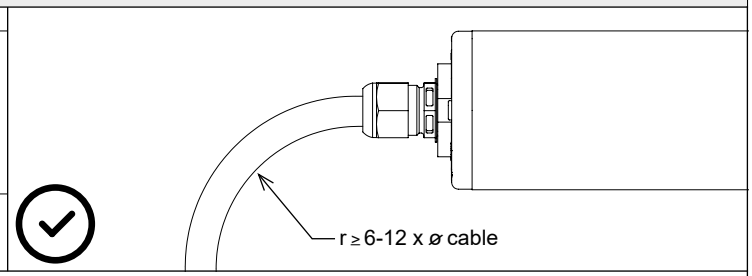
0ND - ON/OFF driver **0D2 -** DALI2 driver

When installing the cable, it is essential to observe the minimum cable bending radius. The minimum bending radius is defined as a multiple (typically 6–12×) of the cable outer diameter according to the cable manufacturer's specification. Failure to comply with this requirement may result in incorrect installation of the luminaire end cap and unacceptable mechanical stress being applied to it.

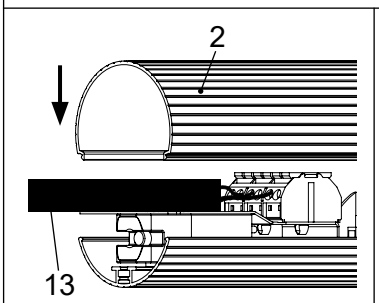
If there is a risk of cable movement or mechanical stress, the cable must be suitably secured against movement!!!

Failure to comply with the above installation requirements directly affects the maintenance of the declared IP rating of the luminaire.

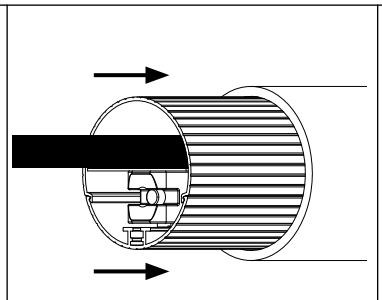


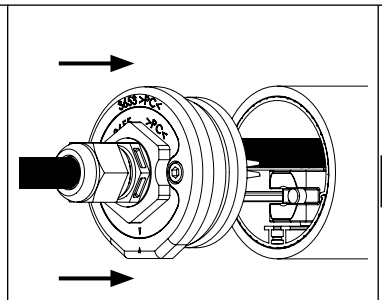


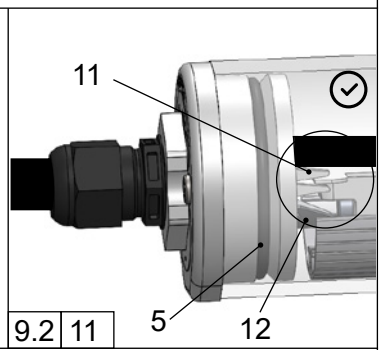
8. Refit the cover profile (2) and slide the aluminium profile back into the tube.
9. Refit the luminaire end cap (4) into the tube. Ensure that the terminal block holders are correctly inserted into the latches on the end cap (11). For the version with disconnector, ensure correct contact of the disconnecting plate with the disconnector surface (12).



8.1


8.2


9.1



9.2 11

10. Tighten the hex socket screws (10) on the luminaire end cap to a tightening torque of 3–4 Nm.
11. After tightening the end cap screws, check that the rubber O-ring (5) evenly contacts the inner surface of the PC tube.
12. Properly tighten the cable glands until partial deformation of the sealing rubber insert is achieved. Tightening torque according to the table.

Cable gland	Sealing area	Tightening torque of the cable gland	Cable gland temperature range
M20x1.5	7 - 13 mm	1.5 Nm	-40 °C to +75°C

During the installation and operation of luminaires in explosive atmospheres, it is essential to follow the relevant safety measures in accordance with national regulations and standards.
AQUA-70-Ex1/21 luminaires are plastic, dust-tight, and water-tight fixtures designed for illuminating areas with a risk of explosion.
The luminaires must not be installed simultaneously in premises with danger of explosion of inflammable dust and inflammable gas and vapors. The light fittings are not suitable for zone 0 hazardous area.

Connection of the luminaire to the electrical network may only be carried out by a person with the appropriate qualification, in accordance with the valid regulation on electrical competence.
When installing the luminaire, ESD safety precautions must be observed using appropriate tools and equipment.

The light source, seals, cable glands, or plugs in this luminaire may only be replaced by the manufacturer, its authorized service technician, or a similarly qualified person.
Any modification or replacement of components that affect explosion protection is strictly prohibited.
Repairs may only be performed by qualified personnel and only using original spare parts.

WARNING!!!
Potential risk of electrostatic charging.
The luminaire must be installed in such a way that accidental contact with people and parts of the luminaire is prevented.
This luminaire is intended for fixed installation only.
Clean the luminaire using a damp cloth only. Regular cleaning intervals must be observed.
Do not open while under voltage.
DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT.
Replace any cracked protective cover immediately.
The manufacturer is not liable for any damage resulting from failure to follow the installation instructions!

Luminaires are not allowed to be used in atmospheres with appearance of vibrations, aggressive chemical substances and smear.

The manufacturer is registered in the take-back system for electrical and electronic equipment and waste according to applicable regulations, and also participates in the packaging take-back and recycling system operated by EKO-KOM. (EK-F06070058).

Description of luminaire variants by control method:

ND - ON/OFF luminaire
D2 - DALI2 luminaire

Description of luminaire variants by connection type:

ND-1F - ON/OFF luminaire, 3x2.5 mm^2
D2-1F - DALI2 luminaire, 5x2.5 mm^2

Accessories to order:

In luminaire data sheet.

Basic instructions:

For users of luminaires

For users of emergency luminaires

For DALI system users

Marking of luminaires:

After clicking on the QR code, you will be redirected to the relevant website.