Ex-Proof Lighting

EAE
LIGHTING

EAE

LIGHTING

Our innovative lighting solutions, integrated with smart control systems, we have developed so far and presented on the market ensured the creation of efficient, safe environments in harmony with environment. In an era where the possibilities offered by the light and light-based technologies constantly and rapidly change, we Emergency Kitnowledge the vital role that lighting plays in every field involving people and nature.

What is a Zone?

It is the analysis of the risk and the classification of the zone based on the level of risk in the facilities where explosive, flammable or combustible materials are produced and/or distributed.

It is examined in two separate categories:
1 - Zone Classification According to Gas Groups
(Zone 0, Zone 1, Zone 2)
2- Zone Classification According to Dust Groups
(Zone 20, Zone 21, Zone 22)

How to Identify a Zone?

Zone classification is performed based on type production specified in the IEC EN 60079-10-1 (Gas) and IEC EN 60079-10-2 (Dust) directives.

Definitions of Zones

Zone 0   : Areas where explosive gas is present continuously, for long periods or frequently
Zone 1   : Areas where explosive gas is likely to occur
Zone 2   : Areas where explosive gas occurs rarely or for a short time
Zone 20   : Areas where explosive dust is present continuously, for long periods or frequently
Zone 21   : Areas where explosive dust is likely to occur
Zone 22   : Areas where explosive dust occurs rarely or for a short time

Note: Zone 0 products are suitable for use in Zone 1 and Zone 2. Zone 1 products are suitable for use in Zone 2. Zone 2 products may only be used in Zone 2. Zone 20 products are suitable for use in Zone 21 and Zone 22. Zone 21 products are suitable for use in Zone 22. Zone 22 products may only be used in Zone 22.

What Is Protection Type?

Indicates the flame-proof enclosure type of the device to be used in the zone. There are many types of enclosures, depending on the specifications of the device.

How to Choose a Protection Type?

You can choose the most suitable protection type for your facility among the enclosure types specified in the IEC EN 60079-0 directive for Zone classification. Moreover, you can learn the content and scope of the directives issued for these types.

What Is an Explosion Group?

It is the determination and classification of the type of explosive, flammable or combustible material produced and/or transferred within the facility.

It is examined in two separate categories:
1-Gas Groups (IIA, IIB, IIC)
2-Dust Groups (IIIA, IIIB, IIIC)

Explosion Group

Typical Types of Gas and Dust

IIA   : Methane, Ethane, Propane, Butane, Octane, Fuel Oil
IIB   : Acrylic nitrile, ethylene, ethylene oxide
IIC   : Hydrogen, acetylene, carbon disulphide

IIA   : Insulating Powders (Plastic, Cereals, etc.)
IIB   : Semiconducting Powders (Silicone, Zinc, etc.)
IIC   : Conducting Powders (Copper, Iron, Aluminium, etc.)

Note: Equipment in group IIB also provide protection against equipment in group IIA. Equipment in group IIC also provide protection against equipment in group IIA and IIB. Equipment in group IIIB also provide protection against equipment in group IIIA. Equipment in group IIC also provide protection against equipment in group IIA and IIB.
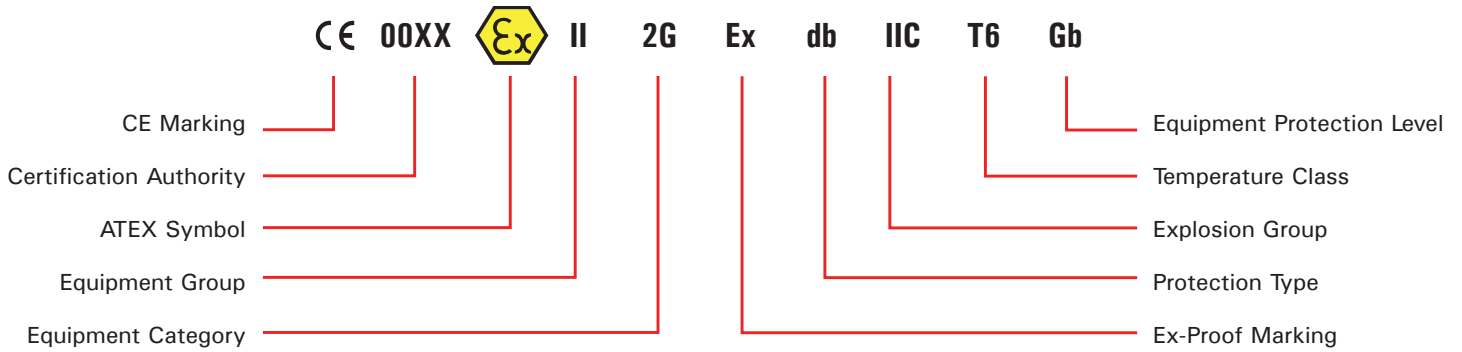
What Is a Temperature Class?

Indicates maximum surface temperature that can occur on the equipment. The determined temperature class should not approach the determined value at a critical level since it is the most important factor triggering the explosion of the liquid, gas or dust material in the area.

Definitions of Temperature Classes

T1   : Maximum surface temperature is lower than 450 °C
T2   : Maximum surface temperature is lower than 300 °C
T3   : Maximum surface temperature is lower than 200 °C
T4   : Maximum surface temperature is lower than 135 °C
T5   : Maximum surface temperature is lower than 100 °C
T6   : Maximum surface temperature is lower than 85 °C
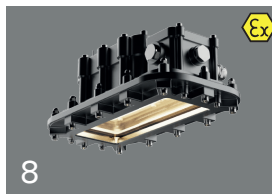
INFORMATION FOR READING A LABEL

CE   00XX   Ex   II   2G   Ex   db   IIC   T6   Gb

- CE Marking
- Certification Authority
- ATEX Symbol
- Equipment Group
- Equipment Category

- Equipment Protection Level
- Temperature Class
- Explosion Group
- Protection Type
- Ex-Proof Marking

COMMON SOLUTION FOR DIFFERENT SECTORS

Heavy Industry Oil&Gas

- Petrochemical
- Refinary
- Offshore
- Mining

Automotive Iron&Steel-Glass

- Automotive and Supply Industries
- Glass Factory
- Iron & Steel- Bloomeries

Power Plants

- Nuclear Power Plants
- Steam Power Plants
- Combined Cycle Plants
- HES, JES, GES

Factories Manufactoring Plants

- Textile
- Machinery-Metal
- Plastic
- Food Inc
- Medicine

Railways & Tunnels

- Metro Tunnels
- Highway Tunnels
- Railway Tunnels
- Train Stations

Data Centers

- GSM & Telecom Companies
- Co Hosting Service Providers
- Financial Institutions
- Public Data Centers
- Edge Data Centers
- Computer Rooms

Healtcares

- Public Hospitals
- Private Hospitals
- Clinics
- Laboratories

Complex Buildings & Towers

- Tower & Skycrapers
- Malls
- Office Buildings
- Hotels
- Residences
- Goverment Buildings

Sport Complexes

- Stadiums
- Indoor Sport Complexes
- Olympic Complexes

Airports

- Terminal Buildings
- Car Park
- Hanger Buildings
- Service Buildings

Zone-1 (Gas)
Zone-21 (Dust)

Content

EX-LINE MINI

With its advanced mechanical features, the EX-LINE MINI stands out with its durable and sealed Aluminium Injection Housing. Guaranteeing a long service life in harsh environmental conditions, this product provides a colour temperature option and high lighting efficiency with its MID POWER LED. EX-LINE MINI also provides economy with its low consumption costs. With different mounting options and the DALI option, it is suitable for explosive atmospheres with ambient temperatures ranging from -40 °C to +45 °C.

Exproof Product Features

Zone   : Zone 1.21 / 2.21 / 2.22
Group / Category   : II / 2GD
Protection Classs   : db eb tb
Explosion Group   : IIC / IIIC
Maximum Surface   : T6 / T85°C
Temperature Class
Certificate Code   : EX II 2G Ex db eb IIC T6 Gb
                             EX II 2D Ex tb IIIC T85°C Gb

Mechanical Features

Housing   : Aluminum Injection Housing
Luminaire Surface : Thermal Tempered Glass
Sealing   : High Temperature Resistant Silicone
                     Gasket and TPV Gasket
Gland (Inlet)   : 1 x M20
Screws and bolts   : AISI 316 Stainless Steel
IP   : IP66

Electrical and Optical Properties

Light Source   : MID POWER LED
Consumption Power : 20W / 28W / 36W / 44W / 51W
Lumen   : 2387 lm / 3267 lm / 4126 lm / 4890 lm / 5540 lm
Input Voltage   : 220-240V   (50-60 Hz)
Colour Temperature : 2000K / 2700K / 3000K / 4000K / 5000K / 5700K / 6500K
CRI   : ≥80
Optical   : Wide Angle 120°

Other Features

Support Type   : Ceiling, Cable Tray, Pole,
                  Chain Support
Housing Colour : SW 306G (Smoked)

Options

Gland Inlet   : M20, M25, NPT 3/4 and
                    Armored Glands
Gland Outlet   : M20, M25, NPT 3/4 and
                    Armored Glands
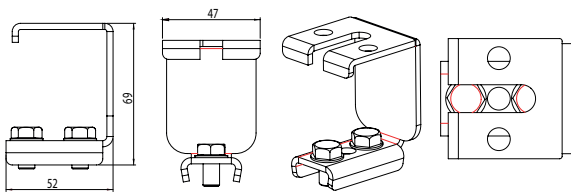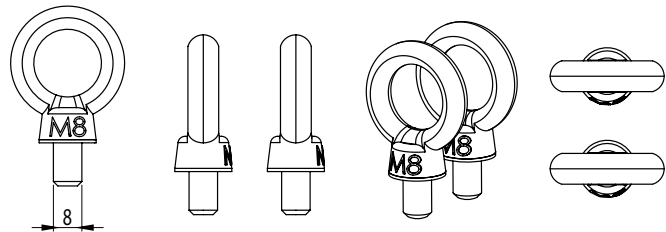Protection Grid   : Yes
DALI   : Yes

Dimensions

Width   : 223 mm
Height : 217 mm
Weight : 5.2 kg

Technical Drawing

-40 °C   +45 °C

Support Tools

Ceiling and Cable Tray Single Installation

47
69
52
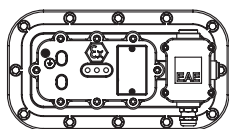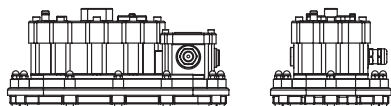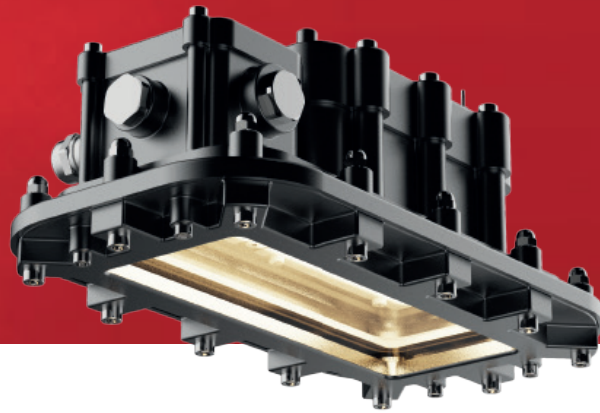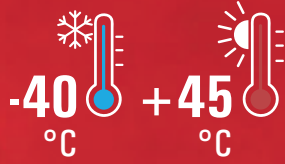
| Order Code | 3244478 |

Chain Support Installation

M8
8

| Order Code | 3244480 |

Wall Installation - Installation with Angular Support
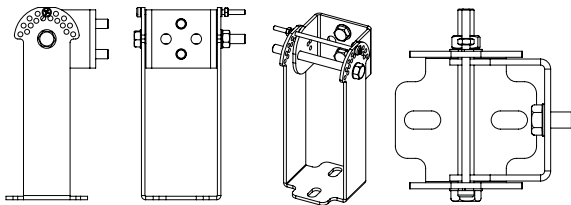
| Order Code | 3244499 |

Tube Installation

140
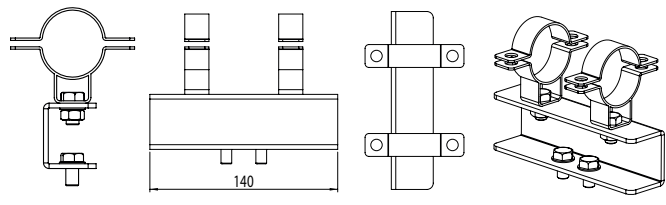
| Order Code | **3244500** |

Ceiling and Cable Tray Double Installation

446
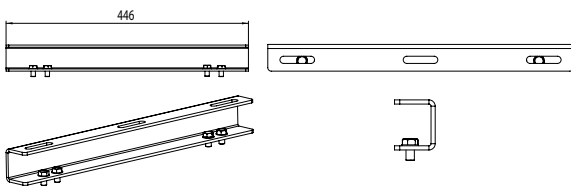
| Order Code | 3244501 |

Ceiling and Cable Tray Single Installation - 2

270
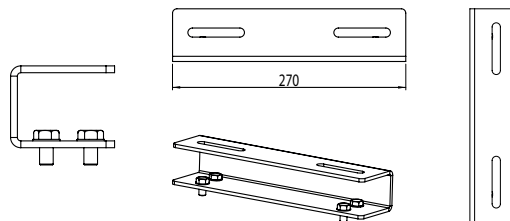
| Order Code | 3244505 |

Surface Hanger Kit

330
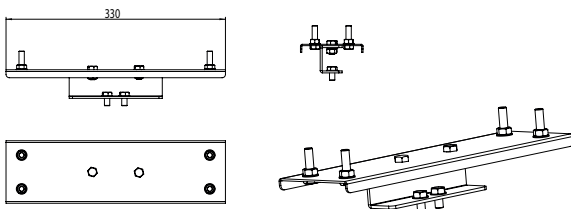
| Order Code | 3245127 |

Zone 1.21 / 2.21 / 2.22
II 2G Ex db eb IIC T6 Gb
II 2D Ex tc IIIC T85°C Db

EX-FOR MINI

This equipment is an explosion-proof Zone-1.21 LED luminaire. It has protection classes "db" for limited inhalation in Zone 1 in explosive gas atmosphere and "tb" for dust ignition in Zone 21 in explosive dust atmosphere. The LEDs and driver are housed in an IP66 protected enclosure. All cables, glands and terminals are certified. Each model is identical in size and appearance. The main differences are power and product features.

Exproof Product Features

Zone	: Zone 1.21 / 2.21 / 2.22
Group / Category	: II / 2GD
Protection Classs	: db tb
Explosion Group	: IIC / IIIC
Maximum Surface Temperature Class	: T6 / T85°
Certificate Code	: EX II 2G Ex db IIC T6 Gb
	EX II 2D Ex tb IIIC T85°C Db

Mechanical Features

Housing	: Aluminum Injection Housing
Luminaire Surface	: Thermal Tempered Glass
Sealing	: High Temperature Resistant Silicone Gasket and TPV Gasket
Gland (Inlet)	: Standard 1 x M20
Screws and bolts	: AISI 316 Stainless Steel
IP	: IP66

Electrical and Optical Properties

Light Source	: MID POWER LED
Consumption Power	: 20W / 28W / 36W / 44W / 51W
Lumen	: 2387 lm / 3267 lm / 4126 lm / 4890 lm / 5540 lm
Input Voltage	: 220-240V (50-60 Hz)
Colour Temperature	: 3000K / 4000K / 5000K / 5700K / 6500K
CRI	: ≥80
Optical	: Wide Angle 120°

Other Features

Support Type	: Ceiling, Cable Tray, Pole, Chain Support
Housing Colour	: SW 306G (Smoked)

Options

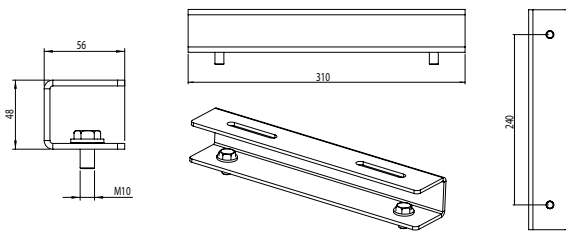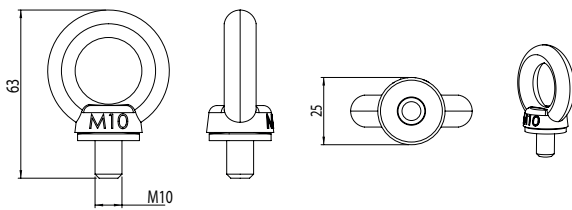|	
Gland Inlet	: M20, M25, NPT 3/4 and Armored Glands
Gland Outlet	: M20, M25, NPT 3/4 and Armored Glands
Protection Grid	: Yes
DALI	: Yes

Dimensions

Width	: 225 mm
Height	: 221 mm
Weight	: 5.5 kg

Technical Drawing

-40 °C +45 °C

Support Tools

Ceiling and Cable Tray Single Installation

56
48
M10
310
240

Order Code   3245782

Single Mapa Hanger Set

63
M10
M10
25

Order Code   3245137

Cable Tray Hanger Set

49
69
52
47
M10
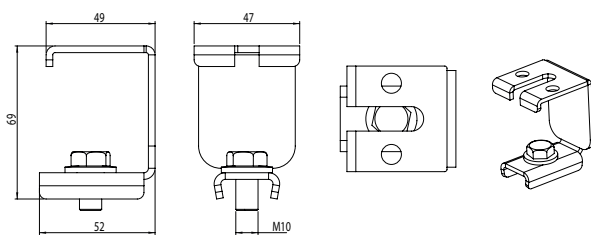
Order Code   3245131

Zone 1.21 / 2.21 / 2.22
II 2G Ex db IIC T6 Gb
II 2D Ex tb IIIC T85°C Db

HBC-EX ZONE 1

With its high resistance to explosion, HBC-EX ZONE 1 exhibits excellent performance against ignition in explosive gas atmosphere and explosive dust atmosphere. Offering long-lasting use in project areas, HBC-EX ZONE-1 is the common solution of different industries that need lighting.

CE Ex ATEX 1F 3F CB

Exproof Product Features

Zone : Zone 1.21 / 2.21 / 2.22
Group / Category : II / 2GD
Protection Classs : 2GD
Explosion Group : IIC / IIIC
Maximum Surface: T6 / T85°C
Temperature Class
Certificate Code : EX db eb mb IIC T6 Gb
EX tb IIIC T85°C Db

Mechanical Features

Housing : Aluminum Injection Housing
Luminaire Surface : Clear Thermal Tempered Glass
Sealing : Temperature Resistant Silicone Gasket
Gland (Inlet) : 1 x M20
Gland (Outlet) : 1 x M20
Screws and bolts : AISI 316 Stainless Steel
IP : IP66

Electrical and Optical Properties

Light Source : MID POWER LED
Consumption Power : 70W / 107W / 130W
Lumen : 8388 lm / 12100 lm / 15100 lm
Input Voltage : 220-240V (50-60 Hz)
Colour Temperature : 4000K / 5000K / 6500K
CRI : ≥85
Optical : Wide Angle 120°

Other Features

Support Type : Ceiling Montajı, Cable Tray,
Pole, Pendant
Housing Colour : SW 306G (Smoked)

Options

Gland Inlet : M20, M25, NPT 3/4 and
Armored Glands
Gland Outlet : M20, M25, NPT 3/4 and
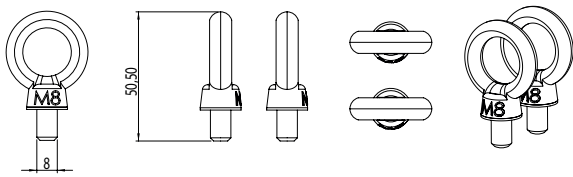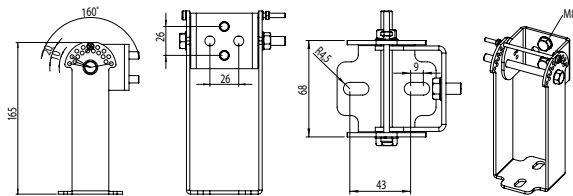Armored Glands
Emergency Kit : Yes (1-3 Hours)
DALI : Yes

Dimensions

Width : 225 mm
Height : 221 mm
Weight : 10.1 - 10.9

Technical Drawing

-30 °C +50 °C
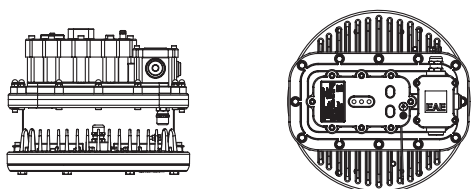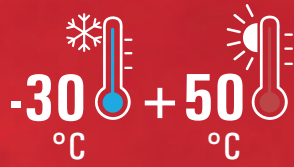
Support Tools

Pendant Hanger Set

Order Code	3244480

Tube Hanger Set

Order Code	3244500

Surface Hanger Set

Order Code	3245127

Cable Tray and Ceiling Suspension Set

Order Code	3304454

Angular Ceiling Tray Wall Set

Order Code	3244499
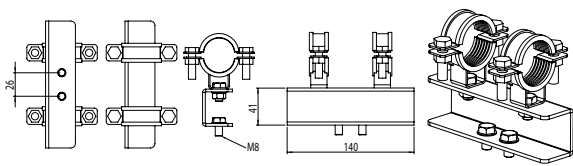
Dual Product Hanging Set

Order Code	3244501
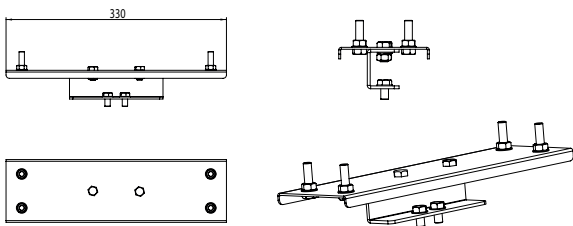
Box Profile Suspension Set
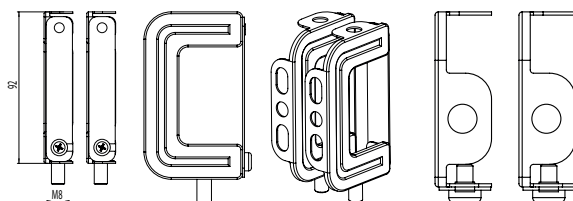
Order Code	3287129
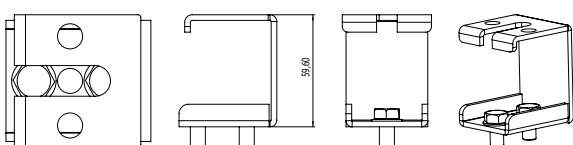
Zone 1.21 / 2.21 / 2.22
Ex db eb mb IIC T6 Gb
Ex tb IIIC T85°C Db

PROLIT ZONE 1

PROLIT ZONE 1 provides a flexible usage area with its IP66 aluminum injection body with high heat and impact resistance and electronic control options in its class. In addition, the product, which has an e-type energy input terminal, provides an economical installation with its easy installation.

CE Ex ATEX 1F 3F CB

Exproof Product Features

Zone   : Zone 1.21 / 2.21 / 2.22
Group / Category   : II / 2GD
Protection Classs   : 2GD
Explosion Group   : IIC / IIIC
Maximum Surface   : T6 / T85°C
Temperature Class
Certificate Code   : EX db mb IIC T6 Gb
                              EX tb IIIC T85°C Db

Mechanical Features

Housing   : Aluminum Injection Housing
Luminaire Surface   : Thermal Tempered Glass
Sealing   : Temperature Resistant Silicone Gasket
Gland (Inlet)   : 1 x M20
Gland (Outlet)   : 1 x M20
Screws and bolts   : AISI 316 Stainless Steel
IP   : IP66

Electrical and Optical Properties

Light Source   : MID POWER LED
Consumption Power   : 70W / 82W / 107W / 130W
Lumen   : 9603 lm / 10986 lm / 13905 lm / 16072 lm
Input Voltage   : 220-240V (50-60 Hz)
Colour Temperature   : 4000K / 5000K / 6500K
                            : ≥85
CRI   : Wide Angle 120°
Optical

Other Features

Support Type   : Ceiling, Pole, Pendant, Cable Tray
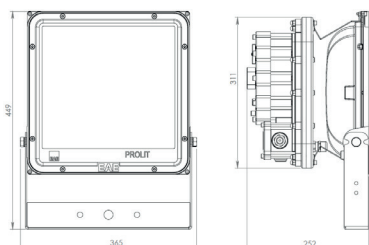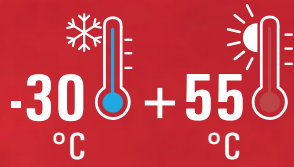Housing Colour   : SW 306G (Smoked)

Options

Emergency Kit   : Yes (1-3 Hours)
DALI   : Yes

Dimensions

Width   : 365 mm
Height   : 449 mm
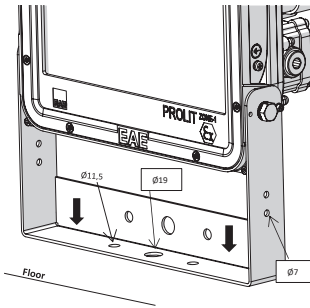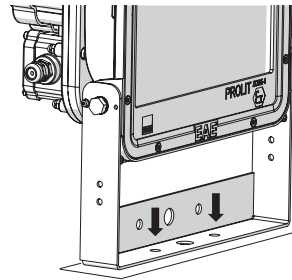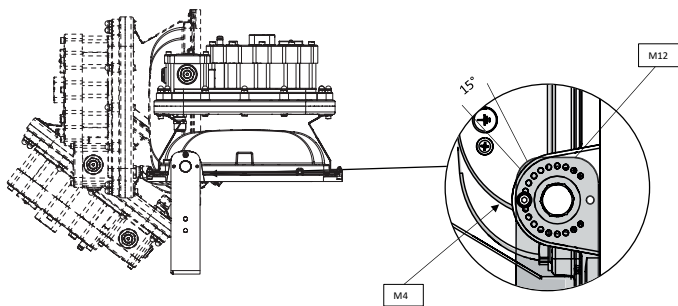Weight   : 13.5 - 14.4 kg

Technical Drawing

-30 °C +55 °C

Support Tools

Floor Assemblyı

Ø11,5   Ø19

Floor   Ø7

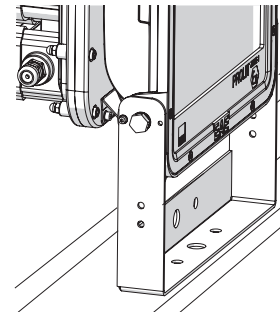### Box Profile Assembly

Adjustable Angle Hanger Kit

15°   M12

M4

Angle Assembly

Zone 1.21 / 2.21 / 2.22
Ex db eb mb IIC T6 Gb
Ex tb IIIC T85°C Db

EX-FLEX

Offering a multi-functional solution for emergency lighting and escape lighting issues, EX FLEX is suitable for explosive areas at ambient temperatures from -20 °C to +50 °C, in Zone 1.21 / 2.21 / 2.22 that require durability with its high-strength housing. Guaranteeing long-lasting use for harsh environmental conditions with its emergency kit option, EX FLEX minimizes possible lighting problems.

CE | Ex | ATEX | 1F | 3F | CB

Exproof Product Features

Zone	: Zone 1.21 / 2.21 / 2.22
Group / Category	: II / 2G / 2D
Protection Classs	: db eb tb
Explosion Group	: IIC / IIIC
Maximum Surface Temperature Class	: T6 / T80°C
Certificate Code	: EX db eb IIC T6 Gb
	EX tb IIIC T80°C Db

Electrical and Optical Properties

Light Source	: LED
Consumption Power	: 5W
Lumen	: 202 lm
Input Voltage	: 220-240V (50-60 Hz)
Colour Temperature	: 4000K
CRI	: ≥80
Optical	: Wide Angle 120°

Other Features

Support Type	: Ceiling Montajı, Boru, Pendant, Wall
Housing Colour	: Grey Polyester

Dimensions

Width	: 220 mm
Length	: 370 mm
Height	: 174 mm
Weight	: 4 Kg

Mechanical Features

Housing	: Aluminum Injection Housing
Luminaire Surface	: Borosilicate Tubular Glass
Sealing	: Temperature Resistant Silicone Gasket
Gland (Inlet)	: 2x M20
Gland (Outlet)	: 2x M20
Screws and bolts	: Stainless Steel
IP	: IP66

Options

Emergency Kit	: Yes (1-3 Hours)

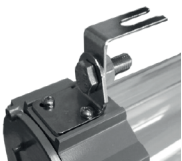## Technical Drawing

-20 °C +50 °C
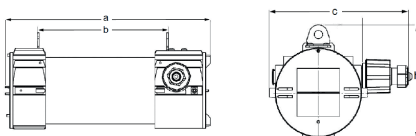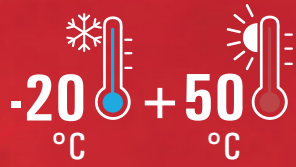
Support Tools

Pipe Installation

Ceiling Installation

Zone 1.21 / 2.21 / 2.22
Ex db IIC T6 Gb or
Ex db eb IIC T6 Gb
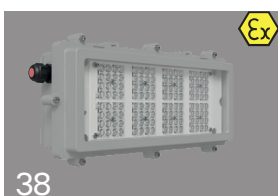Ex tb IIIC T80°C Db

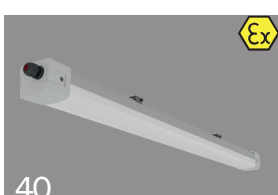## Content

32 ▌GALIS EXPROOF

34 ▌EX-COR ZONE 2.22

36 ▌EX DUAL EXIT ZONE

38 ▌EX DUAL ZONE

40 ▌LINEX ZONE 2.21

PROLIT KOMPAKT

Offering a long service life for years thanks to its sealed and durable housing, PROLIT provides benefits for Yesious environment conditions with its alternative lens types. Providing different colour temperature options, PROLIT is offered to users with a wide range of lumen options. Providing high energy efficiency with its HIGH POWER LED, this product is also offered with IP66 protection class. PROLIT is heat and shock absorbent thanks to its high strength tempered glass. PROLIT is suitable for harsh ambient conditions with temperature ranging from -40 °C to +60 °C.

Exproof Product Features

Zone	: Zone 2.22
Group / Category	: II / 3GD
Protection Classs	: ec / tc
Explosion Group	: IIC / IIIC
Maximum Surface Temperature Class	: T4 / T135°C
Certificate Code	: EX II 3G Ex ec IIC T4 Gc EX II 3D Ex tc IIIC T135°C Dc

Mechanical Features

Housing	: Aluminum Injection Housing
Luminaire Surface	: Thermal Tempered Glass
Sealing	: High Temperature Resistant Silicone Gasket
Gland (Inlet)	: 1 x M16
Support Tools	: AISI 316 Stainless Steel
Screws and bolts	: AISI 316 Stainless Steel
IP	: IP66

Electrical and Optical Properties

Light Source	: HIGH POWER LED / MID POWER LED
Consumption Power	: 70W / 75W / 95W / 96W
Lumen	: 8128 lm / 7549 lm / 11366 lm / 11206 lm
Input Voltage	: 220-240V (50-60 Hz)
Colour Temperature	: 3000K / 4000K / 5700K
CRI	: ≥70 / ≥80
Optical	: High Power LED: 16° / 27° / 52° / 98° / ASM Mid Power LED: 35° / 60° / 90° / ASM

Other Features

Support Type	: Ceiling, Cable Tray, Pole
Housing Colour	: MW 3004

Options

Gland Inlet	: M16, M20, M25, NPT 3/4 and Armored Glands
Gland Outlet	: M16, M20 and Armored Glands
DALI	: Yes

Dimensions

Width	: 279 mm
Length	: 294 mm
Height	: 177 mm
Weight	: 5.1 - 5.3 kg

Technical Drawing
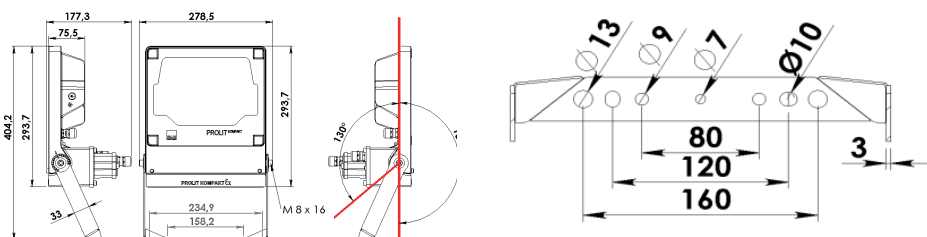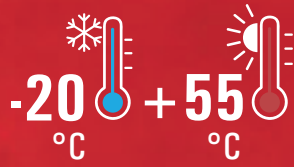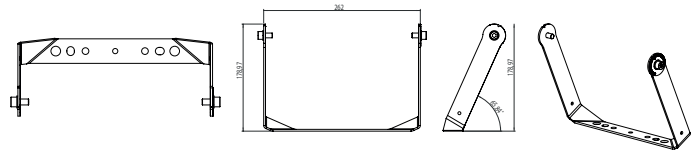
-20 °C   +55 °C

Support Tools

Hanger Set

| Order Code | 2084130 |

Ø60 Tube Hanger Set

292,7
261,8
62
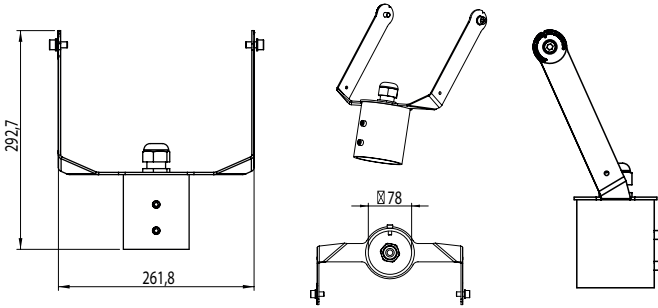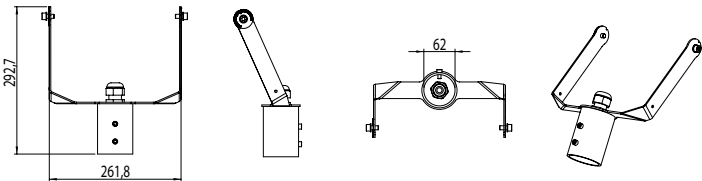
| Order Code | 3324097 |

Ø42-48 Tube Hanger Set

292,7
261,8
52

| Order Code | 3345367 |

Ø76 Tube Hanger Set

292,7
261,8
Ø78
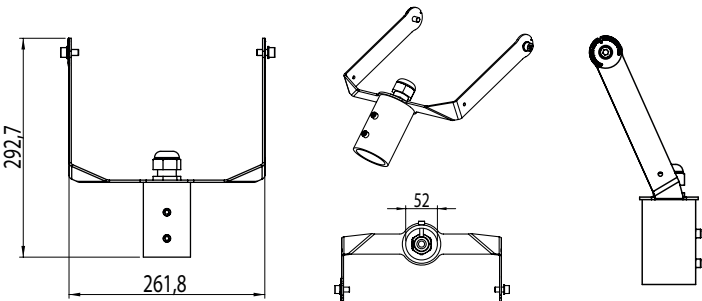
| Order Code | 3345372 |

Zone 2.22
II 3G Ex ec IIC T4 Gc
II 3D Ex tc IIIC T135 Dc

PROLIT EXPROOF

Developed for Ex-Proof Zone 2.22 lighting, PROLIT KOMPAKT, exhibits excellent performance against heat and impacts with its extra resistant body against explosion and fire risk. In addition to its IP66 class resistant body, it captures the best light output thanks to its efficient LED. Especially designed for use in petrochemical, chemical production, shipbuilding, oil and gas industries. The product, which has ATEX and EAC certificates, meets the lighting needs in Zone 2.22 explosive environments in the best way.

LED | DALI | ATEX | Ex

Exproof Product Features

Zone	:	Zone 2.22
Group / Category	:	II / 3GD
Protection Classs	:	ec / tc
Explosion Group	:	IIC / IIIC
Maximum Surface	:	T4 / T135°C
Temperature Class		
Certificate Code	:	EX II 3G Ex ec IIC T4 Gc
		EX II 3D Ex tc IIIC T135°C Dc

Mechanical Features

Housing	:	Aluminum Injection Housing
Luminaire Surface	:	Thermal Tempered Glass
Sealing	:	High Temperature Resistant Silicone Gasket
Gland (Inlet)	:	1 x M16
Support Tools	:	Internal Hanger
Screws and bolts	:	AISI 316 Stainless Steel
IP	:	IP66

Electrical and Optical Properties

Light Source	:	POWER LED
Consumption Power	:	102W / 150W / 176W / 206W
Lumen	:	14879 lm / 19753 lm / 22585 lm / 25760 lm
Input Voltage	:	220-240V (50-60 Hz)
Colour Temperature	:	4000K
CRI	:	≥70
Optical	:	16° / 27° / 52° / 98° / AS

Other Features

Support Type	:	Ceiling, Cable Tray, Pole
Housing Colour	:	MV 3004 (Emergency Kit)

Options

Gland Inlet	:	M16, M20, M25, NPT 3/4 and Armored Glands
Gland Outlet	:	M16, M20 and Armored Glands
DALI	:	Yes

Dimensions

Width	:	336 mm
Length	:	476 mm
Height	:	173 mm
Weight	:	9 Kg

Technical Drawing

-20 °C **+55** °C
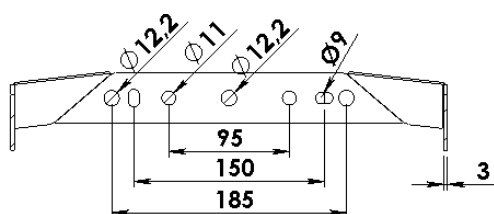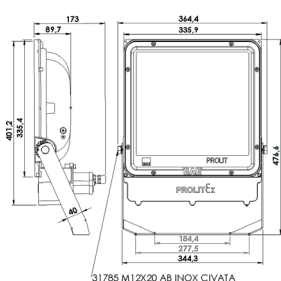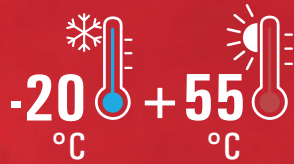
Support Tools
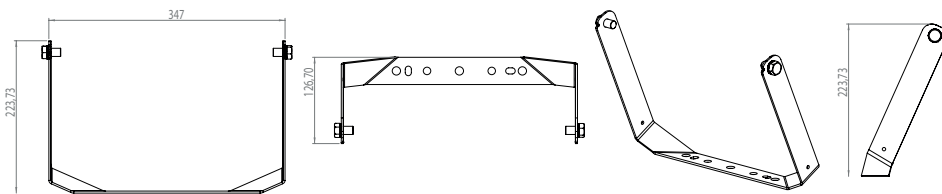
Hanger Set

Order Code   2084212
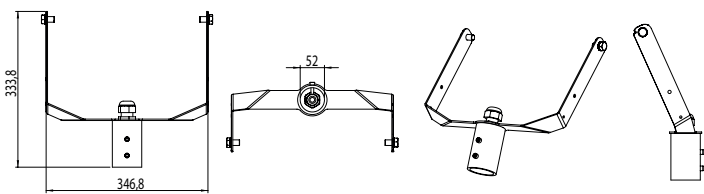
Ø60 Tube Hanger Set
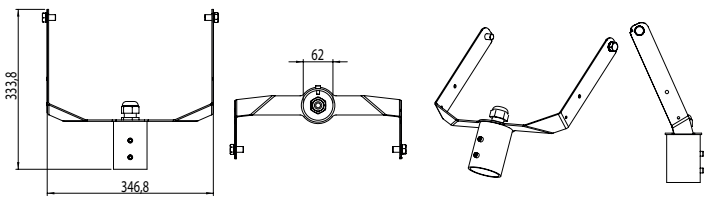
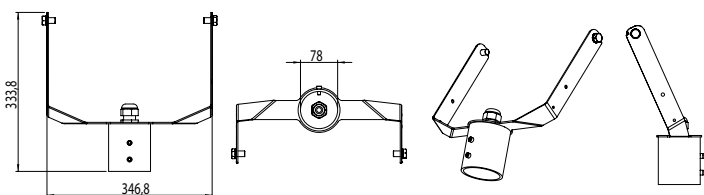**Order Code**   3345373

Ø42-48 Tube Hanger Set

Order Code   3345373

Ø76 Tube Hanger Set

Order Code   3345377

Zone 2.22
II 3G Ex ec IIC T4 Gc
II 3D Ex tc IIIC T135 Dc

HBC EX ZONE 2

With its round Aluminium Injection Housing, HBC EX ZONE 2 offers high resistance in challenging conditions. Offering a long service life, HBC EX ZONE 2 is suitable for harsh weather conditions with its PMMA/PC surface. It is very efficient with its wide lumen range options and its economical MID POWER LED. Offering emergency kit and DALI options, this product minimizes possible lighting problems. Designed for harsh ambient conditions with temperature ranging from -30 °C to +55 °C, HBC EX ZONE 2 is the common solution of different industries which require lighting.

LED | DALI | ATEX | Ex

Exproof Product Features

Zone	: Zone 2.21 / 2.22
Group / Category	: II / 3G / 2D
Protection Classs	: nR / tb
Explosion Group	: IIC / IIIC
Maximum Surface Temperature Class	: T5 / T100°C - T6 / T85°C
Certificate Code	: II 3G Ex nR IIC T5,T6 Gc II 2D Ex tb IIIC T100, T85°C Db

Electrical and Optical Properties

Light Source	: MID POWER LED
Consumption Power	: 75W / 98W / 154W / 181W / 197W
Lumen	: 8000 lm / 11470 lm / 17517 lm / 19219 lm / 20125 lm
Input Voltage	: 220-240V (50-60 Hz)
Colour Temperature	: 2700K / 3000K / 4000K / 5000K / 5700K / 6500K
CRI	: ≥80
Optical	: 50° / 80°

Other Features

Support Type	: Ceiling, Cable Tray, Chain, Busbar
Housing Colour	: SW 306G (Smoked)

Dimensions

Width	: 315 mm
Height	: 215 mm
Weight	: 6.5 - 7.2 kg

Mechanical Features

Housing	: Aluminum Injection Housing
Luminaire Surface	: Thermal Tempered Glass & PC Lens
Sealing	: High Temperature Resistant Silicone Gasket
Gland (Inlet)	: 1 x M16
Screws and bolts	: AISI 316 Stainless Steel
IP	: IP66

Options

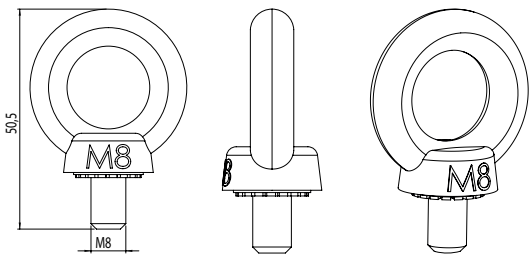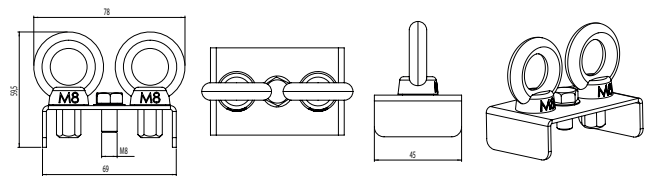|	
Gland Inlet	: M16, M20, M25, NPT 3/4 and Armored Glands
Gland Outlet	: M16, M20 and Armored Glands
DALI	: Yes
Emergency Kit	: Yes (1-3 Hours)

Technical Drawing

-30 °C +55 °C
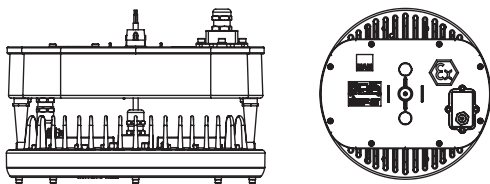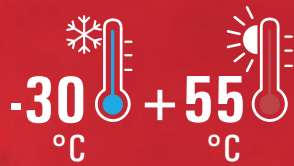
Support Tools

MAPA Single Hanger Set

50,5

M8

M8

Order Code   3096325

Emergency Kit Cable Pan Hanger Set

54,5

103

69

M8
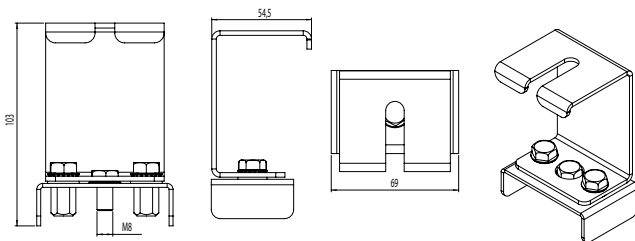
Order Code   3188240

Busbar Hanger Set

55   17

92

M8

Order Code   3188241

Emergency Kit Double MAPA Hanger Set

78

59,5

M8   M8

M8

69   45

Order Code   3224449
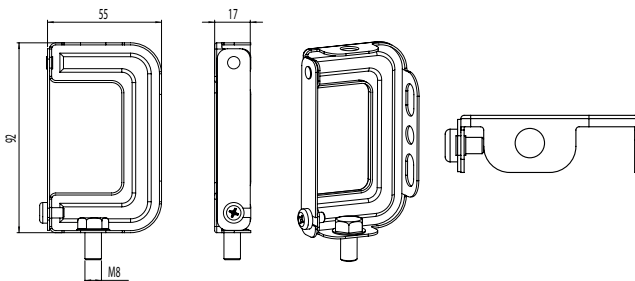
Zone 2.21 / 2.22
II 3G Ex nR IIC T5,T6 Gc
II 2D Ex tb IIIC T100, T85°C Db

CSD

Designed for Ex-Proof, Zone 2.22 lighting, Cushido polycarbonate housing with high impact and heat resistance guarantees a long service life. Offering alternative support types and an emergency kit option, this product provides safe light distribution thanks to its Polycarbonate diffuser. Cushido offers economy thanks to its MID POWER LED. With its advanced structure and affordable cost, it offers quality lighting solutions for harsh conditions with temperatures ranging from -25 °C to +55 °C.

Exproof Product Features

Zone	: Zone 2.22
Group / Category	: II / 3GD
Protection Classs	: nR / tc
Explosion Group	: IIC / IIIC
Maximum Surface Temperature Class	: T6 / T85°
Certificate Code	: EX II 3G Ex nR IIC T6 Gc
	EX II 3D Ex tc IIIC T85°C Dc

Mechanical Features

Housing	: Robust Polycarbonate Housing (PC) with High Mechanical Resistance
Luminaire Surface	: Robust Polycarbonate Diffuser (PC) with High Mechanical Resistance
Sealing	: Polyurethane Cast Gasket
Gland (Inlet)	: Input std. 1 x ISO M20
Screws and bolts	: AISI 316 Stainless Steel
IP	: IP66

Electrical and Optical Properties

Light Source	: MID POWER LED
Consumption Power	: 22W / 27W / 30W / 37W / 42W / 53W / 58W / 71W
Lumen	: 2910 lm / 3640 lm / 4000 lm / 5010 lm / 5820 lm / 7280 lm / 8010 lm / 10010 lm
Input Voltage	: 220-240V (50-60 Hz)
Colour Temperature	: 4000K / 6500K
CRI	: ≥80
Optical	: Wide Angle 120°

Other Features

Support Type	: Ceiling, Wall, Cable Tray, Angled, Pendant
Housing Colour	: RAL 9002

Options

Emergency Kit	: Yes (1-3 Hours)

Dimensions

Width	: 145 mm
Length	: 1272 / 1572 mm
Height	: 111 mm
Weight	: 3.2 - 4.4 kg

Technical Drawing

145

111
100

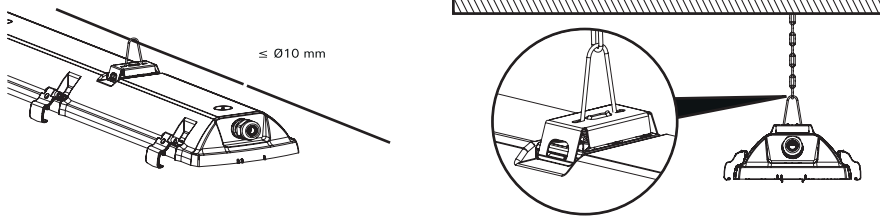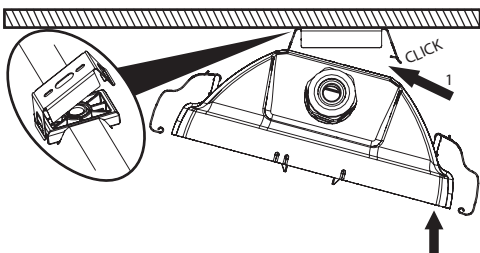1272 or 1572

-25 °C **+55** °C
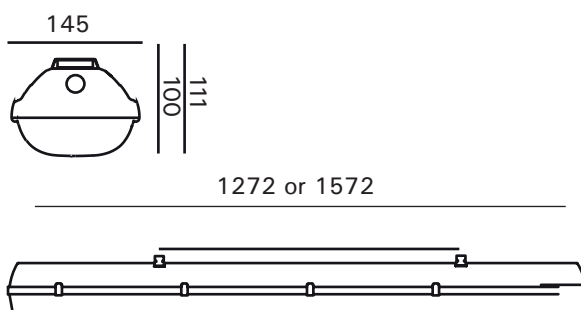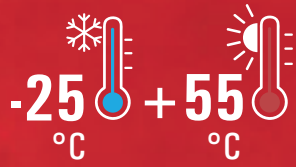
Support Tools

Wall Installation and Ceiling Support Installation

≤ Ø10 mm

Ceiling and Wall / Angled Installation

CLICK

Zone 2.22
II 3G Ex nR IIC T6 Gc
II 3D Ex tc IIIC T85 Dc

DPE

This equipment is an explosion-proof LED luminaire. It has increased safety "nr" protection classes in Zone 2 in explosive gas atmosphere and "tb" protection classes in Zone 21 in explosive dust atmosphere against dust ignition. The LEDs and driver are housed in an IP65 protected enclosure. All cables, moisture plugs, glands and terminal blocks are certified.

CE | Ex | ATEX | 1F | 3F | CB

Exproof Product Features

Zone	: Zone 2 / 21
Group / Category	: II / 3G / 2D
Protection Classs	: nR / tb
Explosion Group	: IIC / IIIC
Maximum Surface Temperature Class	: T6 / T75°C
Certificate Code	: II 3G Ex nR IIC T6 Gc
	II 2D Ex tb IIIC T75°C Db

Mechanical Features

Housing	: Metal Sac Housing
Luminaire Surface	: Thermal Tempered Glass
Sealing	: TPV Conta
Gland (Inlet)	: 1 x M16
Gland (Outlet)	: 1 x M16
Screws and bolts	: IP65

Electrical and Optical Properties

Light Source : MID POWER LED

D Type (Housing 1)					
W	36	40	44	48	52	55
Lm	4398	4833	5268	5700	6131	6562

V Type (Housing 2)		
W	87	127
Lm	10000	14592

Z Type (Housing 2)		
W	87	127
Lm	10000	14592

D Type (Housing 2)														
W	59	63	67	71	73	75	79	83	87	91	97	103	105	113	121	127
Lm	6989	7414	7840	8262	8683	8800	9105	9522	10000	10600	11299	12000	12140	12976	13807	14592

*Consumption Power (W)   *Lumen (Lm)

Input Voltage	: 220-240V (50-60 Hz)
Colour Temperature	: 2700K / 3000K / 4000K / 5000K / 5700K / 6500K
CRI	: ≥ 80
Optical	: Wide Angle 120°

Other Features

|	
Support Type	: Sheet Metal Panel
Housing Colour	: RAL 9016

Options

Gland Inlet	: M16, M20, M25, NPT 3/4 and Armored Glands
Gland Outlet	: M16, M20 and Armored Glands
DALI	: Yes
Emergency Kit	: Yes (1-3 Hours)
Sheet Metal	: Wall Surface Mounting

Dimensions (mm)

D Type

Width	: 1150
Length	: 490
Height	: 134

V Type

Width	: 1754
Length	: 542
Height	: 147

Z Type

Width	: 1754
Length	: 542
Height	: 147

Weight : 19 - 23 Kg

Technical Drawingler

D Type   V Type   Z Type
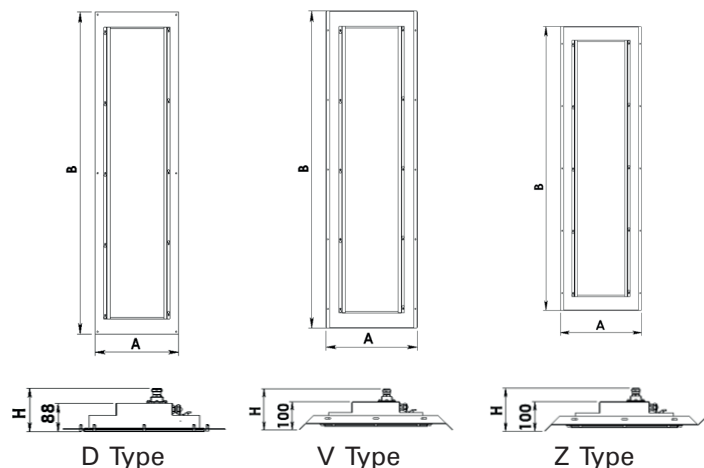
-20 °C   +45 °C
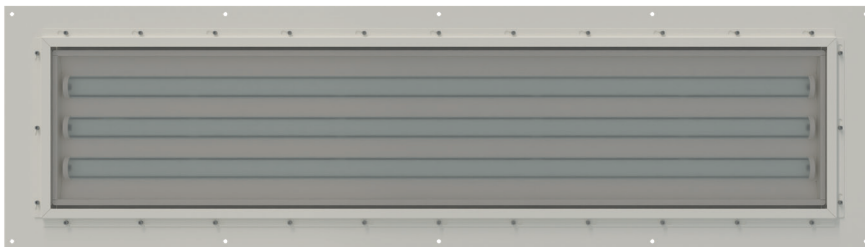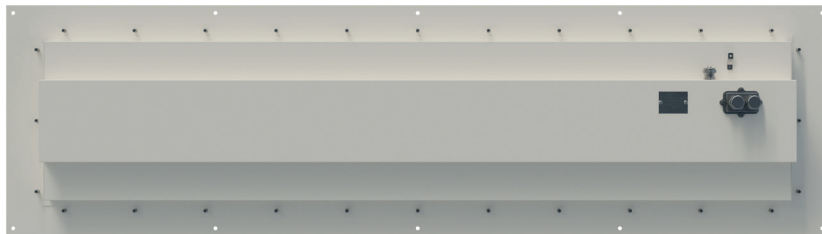
Zone 2.21 / 2.22
II 3G Ex nR IIC T6 Gc
II 2D Ex tb IIIC T75°C Db

GALIS EXIT ZONE 2.21

GALIS EX-PROOF EXIT is a perfect example of emergency exit lighting design in explosive areas. Designed to be used in Zone 2.21 / 2.22 areas, the product has optional electronic control options for maintenance and non-maintenance.

CE | **Ex** | **ATEX** | **1F** | **3F** | **CB**

Exproof Product Features

Zone   : Zone 2.21 / 2.22
Group / Category   : II / 3G / 2D
Protection Classs   : nR / tb
Explosion Group   : IIC / IIIC
Maximum Surface   : T6 / T55°C
Temperature Class
Certificate Code   : EX II 3G Ex nR IIC T6 Gc
                                EX II 2D Ex tb IIIC T55°C Db

Mechanical Features

Housing   : Aluminum Extrusion Housing
Luminaire Surface : Thermal Tempered Glass
Sealing   : High Temperature
                    Durable Silicone Gasket
Rakor   : 1 x M20
Screws and bolts : AISI 316 Stainless Steel
IP   : IP66

Electrical and Optical Properties

Light Source   : MID POWER LED
Consumption Power : 5W
Lumen   : 629 lm
Input Voltage   : 220-240V (50-60 Hz)
Colour Temperature : 2700K / 3000K / 4000K / 5000K / 5700K / 6500K
CRI   : ≥80
Optical   : Wide Angle 120°

Other Features

Support Type   : Pipe, Angled, Profile, Pendant, Ceiling
Housing Colour : Grey Painted Alluminum

Dimensions

Width   : 460 mm
Length : 230 mm
Height : 76 mm
Weight : 2,1 Kg

Options

Gland Inlet   : M20, M25, NPT 3/4 and
                 Armored Glands
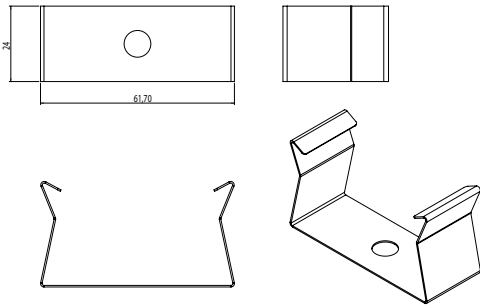Emergency Kit : Yes (1-3 Hours),
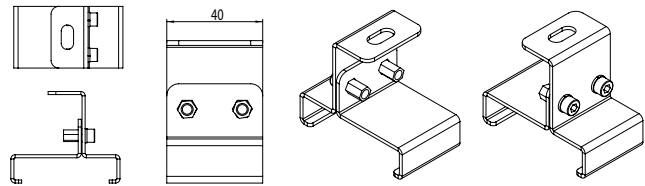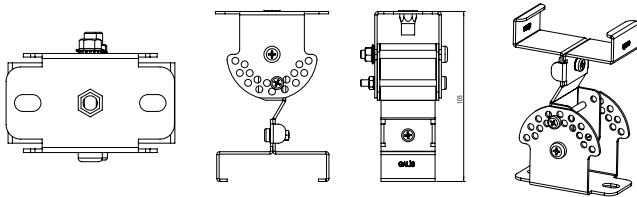   Activated by Power Outage

Technical Drawing

+5 °C +40 °C

Support Tools

Hanger Spring

24
61.70

| Order Code | 1006876 |

Fixed Hanger Set (Double)

40

| Order Code | 3164773 |

Angled Hanger Set (Stainless)

| Order Code | 3236243 |

Bara Hanger Set (Double)

125.6

| Order Code | 3290008 |

Ex Clamp Fixed Hanger Kit

Ø36-38
MAX 120
70,8
40
77,8

| Order Code | 3290438 |

Zone 2.21 / 2.22
EX II 3G Ex nR IIC T6 Gc
EX II 2D Ex tb IIIC T55°C Db

GALIS EXPROOF

Galis combines high efficiency and technology with explosion protection. It exhibits excellent performance thanks to its LEDs inside. With Zone 2.22 and Zone 2.21 Zone protections, it provides safe lighting in flammable, explosive and dusty environments.

CE | Ex | ATEX | 1F | 3F | CB

Exproof Product Features

Zone	: Zone 2.21 / 2.22
Group / Category	: II / 3G / 2D
Protection Classs	: nR / tb
Explosion Group	: IIC / IIIC
Maximum Surface Temperature Class	: T6 / T55°C
Certificate Code	: EX II 3G Ex nR IIC T6 Gc
	EX II 2D Ex tb IIIC T55°C Db

Mechanical Features

Housing	: Aluminum Extrusion Housing
Luminaire Surface	: Thermal Tempered Glass
Sealing	: High Temperature Resistant Silicone Gasket
Gland (Inlet)	: 1 x M20
Gland (Outlet)	: 1 x M20
Screws and bolts	: AISI 316 Stainless Steel
IP	: IP66

Electrical and Optical Properties

Light Source	: MID POWER LED
Consumption Power	: 19W / 23W / 28W / 37W / 55W / 70W
Lumen	: 2443 lm / 3158 lm / 4106 lm / 5208 lm / 7711 lm / 9716 lm
Input Voltage	: 220-240V (50-60 Hz)
Colour Temperature	: 4000K
CRI	: ≥80
Optical	: Wide Angle 120°

Other Features

Support Type	: Pipe, Angled, Profile, Pendant, Ceiling
Housing Colour	: RAL 7047 (Grey)

Options

Gland Inlet	: M20, M25, NPT 3/4 and Armored Glands
Gland Outlet	: M20, M25, NPT 3/4 and Armored Glands
Emergency Kit	: Yes (1-3 Hours)

Dimensions

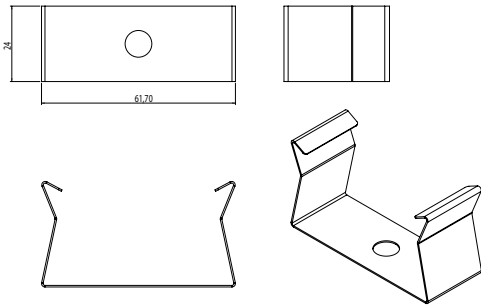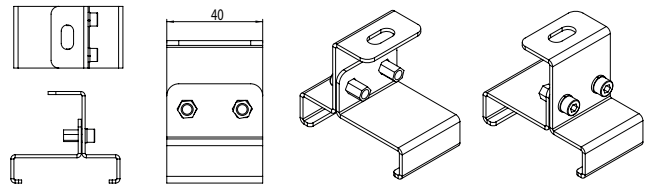|	
Width	: 176 mm
Length	: 566 mm / 886 mm / 1286 mm / 1528 mm / 1315 mm / 1557 mm
Height	: 76 mm
Weight	: 2,3 Kg - 5,4 Kg

Technical Drawing

-20 °C + 40 °C
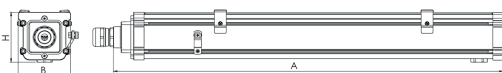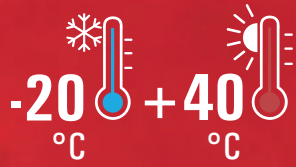
Support Tools

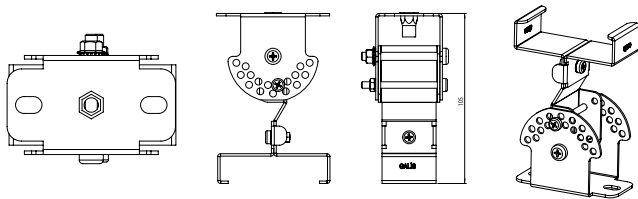### Hanger Spring

| Order Code | 1006876 |

Fixed Hanger Set (Double)
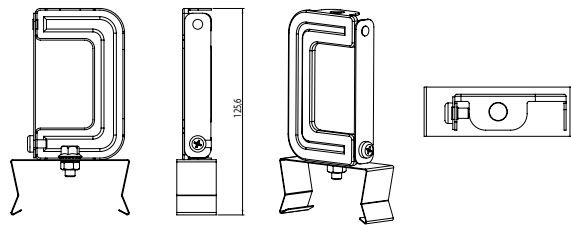

| Order Code | 3164773 |

Angled Hanger Set (Stainless)
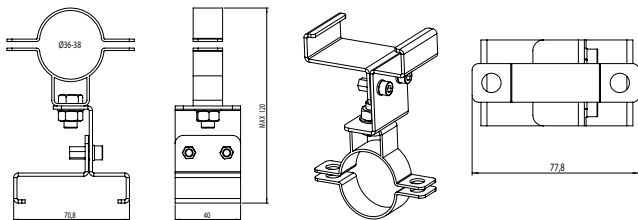

| Order Code | 3236243 |

Bara Hanger Set (Double)

| Order Code | 3290008 |

Ex Clamp Fixed Hanger Kit

| Order Code | 3290438 |

Zone 2.21 / 2.22
EX II 3G Ex nR IIC T6 Gc
EX II 2D Ex tb IIIC T55°C Db

EX-COR ZONE 2.22

This equipment is an explosion-proof LED luminaire. It has protection classes "nR" limited inhalation in Zone 2 in explosive gas atmosphere and "tc" against dust ignition in Zone 22 in explosive dust atmosphere. The LEDs and driver are housed in an IP65 protected enclosure. All cables, moisture plugs, glands and terminal blocks are certified. The appearance of each model is identical, the main differences are the power ratings

CE Ex ATEX 1F 3F CB

Exproof Product Features

Zone   : Zone 2.22
Group / Category   : II / 3GD
Protection Classs : nR / tc
Explosion Group   : IIC / IIIC
Maximum Surface   T6 / T85°C
Temperature Class
Certificate Code   : EX II 3G Ex nR IIC T6 Gc
                     EX II 3D Ex tc IIIC T85°C Dc

Mechanical Features

Housing   : GRP Housing
                   (Glass reinforced polyester)
Işık Yüzeyi   : PC (Polycarbonate) Opal Diffuser
Sealing   : Polyurethane Casting Gasket
Gland (Inlet)   : 1x M20 Plastic Ex
Gland (Outlet)   : 1x M20 Plastic Ex
Screws and bolts : AISI 301 Stainless Steel
IP   : IP65

Electrical and Optical Properties

Light Source   : MID POWER LED
Consumption Power : 29W / 40W / 51W / 60W / 72W / 81W
Lumen   : 3478 lm / 3453 lm / 5117 lm / 6487 lm / 7538 lm / 8961 lm / 9906 lm
Input Voltage   : 220-240V (50-60 Hz)
Colour Temperature : 2700K / 3000K / 4000K / 5000K / 5700K / 6500K
CRI   : ≥80
Optical   : Wide Angle 120°

Other Features

Support Type   : Ceiling, Wall,
                   Cable Tray, Pendant
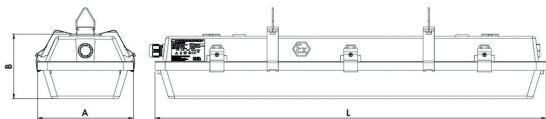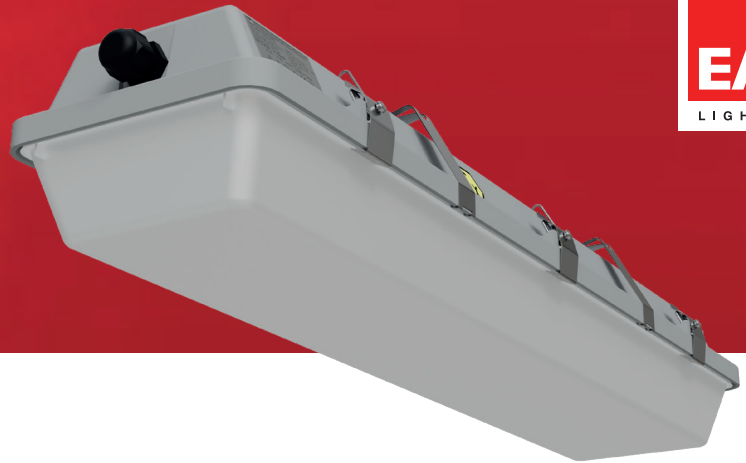Housing Colour   : RAL 9002 (Grey)

Options

Gland Inlet   : M20, M25 and Armored Glands
Gland Outlet   : M20, M25 and Armored Glands
DALI   : Yes
Emergency Kit : Yes (1-3 Hours)

Dimensions

Width   : 172 mm
Length : 702 mm / 1312 mm / 1602 mm
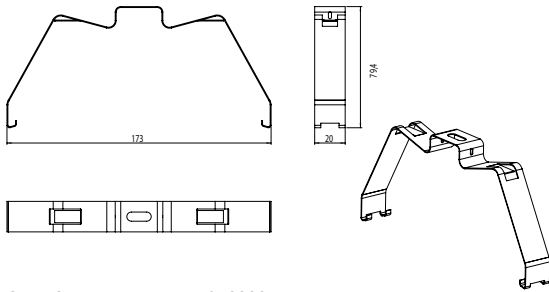Height : 115 mm
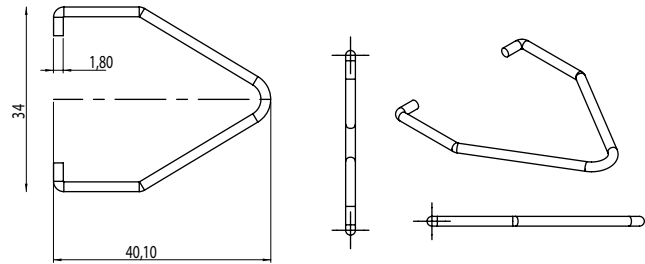Weight : 2,6 - 4,3 kg

Technical Drawing

Support Tools
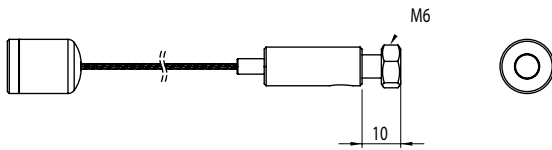
Hanger Set

Order Code	1052998

Hanger Spring

Order Code	1053518

Elevator Hanger Kit (50CM / 100CM / 150CM / 200CM)

Order Code		
	3325607	M6X10 - 50CM
	3325604	M6X10 - 100CM
	3325605	M6X10 - 150CM
	3325606	M6X10 - 200CM

Zone 2.22
EX II 3G Ex nR IIC T6 Gc
EX II 3D Ex tc IIIC T85°C Dc

EX-DUAL EXIT ZONE 2.21

This equipment is an explosion-proof Zone-2.21 LED directional luminaire. It has protection classes "nR" against limited inhalation in Zone 2 in explosive gas atmosphere and "tb" against dust ignition in Zone 21 in explosive dust atmosphere. The LEDs and driver are housed in an IP66 protected enclosure. All cables, glands and terminals are certified. Each model is identical in size and appearance.

CE | Ex | ATEX | 1F | 3F | CB

Exproof Product Features

Zone	: Zone 2.21
Group / Category	: II / 3G / 2D
Protection Classs	: Gc / Db
Explosion Group	: IIC / IIIC
Maximum Surface	: T6 / T80°C
Temperature Class	
Certificate Code	: EX II 3G Ex nR IIC T6 Gc
	EX II 2D Ex tb IIIC T80°C Db

Electrical and Optical Properties

Light Source	: Mid Power Led
Consumption Power	: 6W
Lumen	: 107 lm
Input Voltage	: 220-240V (50-60 Hz)
Colour Temperature	: 2700K / 3000K / 4000K /
	5000K / 5700K / 6500K
CRI	: ≥ 80
Optical	: Wide Angle 120°

Other Features

Support Type	: Pendant
Housing Colour	: RAL 7047 (Grey)

Dimensions

Width	: 90
Length	: 402
Height	: 184
Weight	: 3 - 3.2 Kg

Mechanical Features

Housing	: GRP Housing
	(Glass reinforced polyester)
Luminaire Surface	: Thermal Tempered Glass ve Sticker
Sealing	: High Temperature Resistant
	Silicone Gasket
Gland (Inlet)	: 1 x M16 Plastic Ex
Gland (Outlet)	: 1 x M16 Plastic Ex
Screws and bolts	: AISI 316 Stainless Steel
IP	: IP66

Options

Gland Inlet	: M16, M20, M25, NPT 3/4
	and Armored Glands
Gland Outlet	: M16, M20, M25, NPT 3/4
	and Armored Glands
DALI	: Yes
Emergency Kit	: Yes (1-3 Hours),
	Activated by Power Outage

0 °C +45 °C
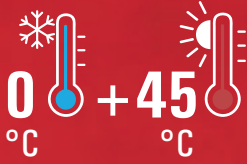
Support Tools

Angled Hanger Kit
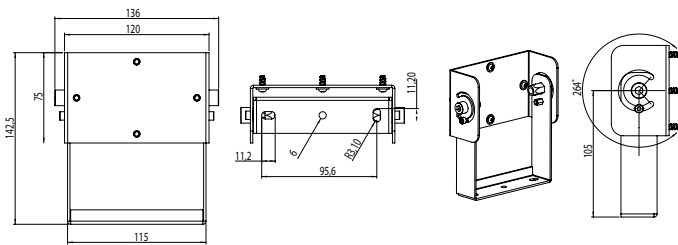
Order Code	3322256

Wall Mount Hanger Kit
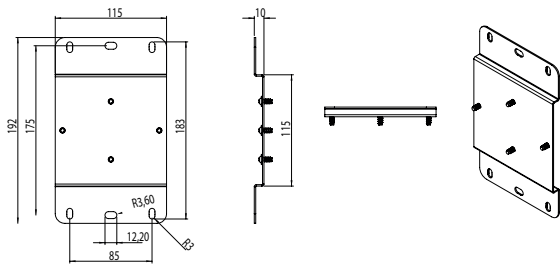
Order Code	3322260

Tube Hanger Kit

Ø31-38mm
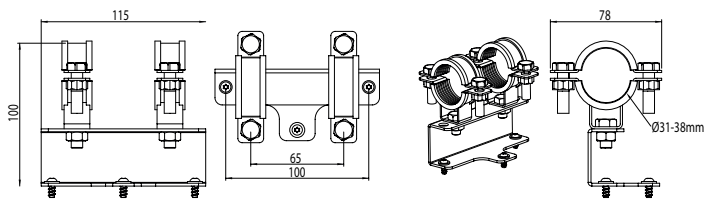
Order Code	3322258

Elevator Hanger Kit
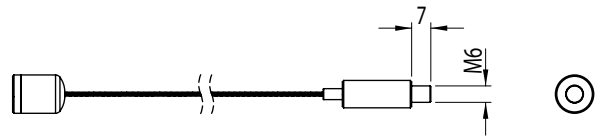
Order Code	3336380 - M6X7 - 50CM
	3336383 - M6X7 - 100CM
	3336381 - M6X7 - 150CM
	3336382 - M6X7 - 200CM

Busbar Hanger Kit
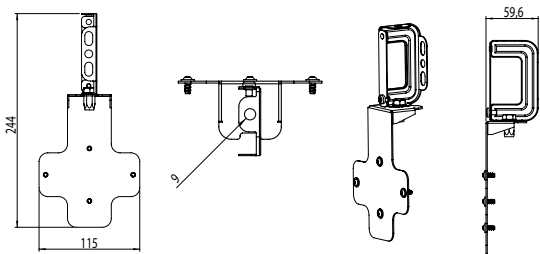
Order Code	3322259

Cable Tray and Ceiling Suspension Set
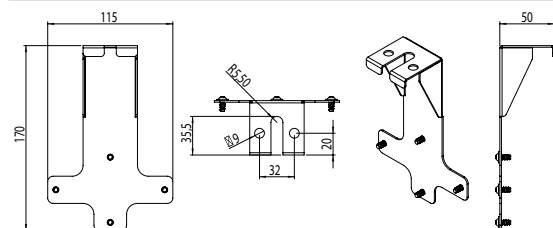
Order Code	3322258

Zone 2.21 / 2.22
EX II 3G Ex nR IIC T6 Gc
EX II 2D Ex tb IIIC T80°C Db

EX-DUAL ZONE 2.21

This equipment is an explosion-proof Zone-2.21 LED luminaire. It has protection classes "nR" against limited inhalation in Zone 2 in explosive gas atmosphere and "tb" against dust ignition in Zone 21 in explosive dust atmosphere. The LEDs and driver are housed in an IP66 protected enclosure. All cables, glands and terminals are certified. Each model is identical in size and appearance.

CE Ex ATEX 1F 3F CB

Exproof Product Features

Zone   : Zone 2 / Zone 21
Group / Category   : II / 3G / 2D
Protection Classs   : Gc / Db
Explosion Group   : IIC / IIIC
Maximum Surface   : T6
Temperature Class
Certificate Code   : EX II 3G Ex nR IIC TX Gc
                              EX II 2D Ex tb IIIC TXX°C Db

Mechanical Features

Housing   : GRP Housing
                          (Glass reinforced polyester)
Luminaire Surface   : Thermal Tempered Glass ve PC Lens
Sealing   : High Temperature Resistant
                          Silicone Gasket
Gland (Inlet)   : 1 x M16 Plastic Ex
Gland (Outlet)   : 1 x M16 Plastic Ex
Screws and bolts   : AISI 316 Stainless Steel
IP   : IP66

Electrical and Optical Properties

Light Source   : Mid Power Led
Consumption Power   : 26W / 33W / 42W
Lumen   : 3414 lm / 4195 lm / 5276 lm
Input Voltage   : 220-240V (50-60 Hz)
Colour Temperature : 2700K / 3000K / 4000K /
                      5000K / 5700K / 6500K
CRI   : ≥ 80
Optical   : 18° / 23° / 30° / 45° /
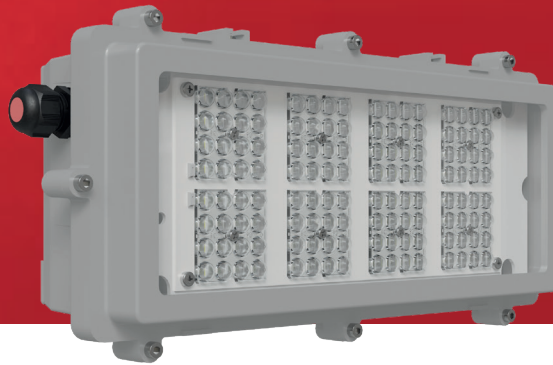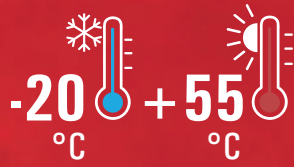   60° / 90° / Wide Angle 120°

Options

Emergency Kit   : Yes (1-3 Hours)

Other Features
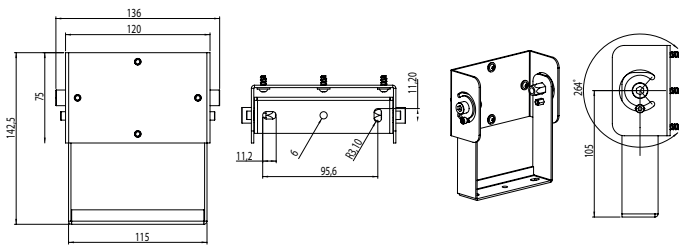
Support Type   : Surface Mounted
Housing Colour   : RAL 7047

Dimensions

Width   : 184 mm
Length   : 402 mm
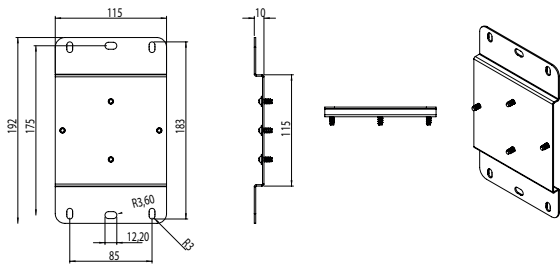Height   : 90 mm
Weight   : 3,2 - 3,5 Kg

-20 °C +55 °C
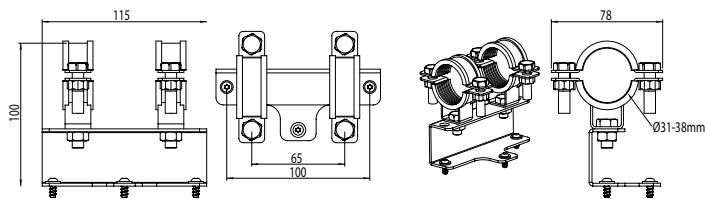
Support Tools

Angled Hanger Set

Order Code	3322256

Tube Hanger Set

Ø31-38mm

Order Code	3322258

Busbar Hanger Set

Order Code	3322259

Cable Tray and Ceiling Suspension Set

Order Code	3322258

Wall Mount Hanger Kit

Order Code	3322260

Elevator Hanger Set
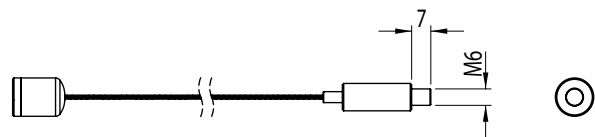
Order Code	3336380 - M6X7 - 50CM
	3336383 - M6X7 - 100CM
	3336381 - M6X7 - 150CM
	3336382 - M6X7 - 200CM
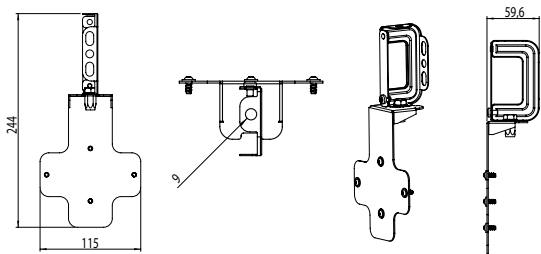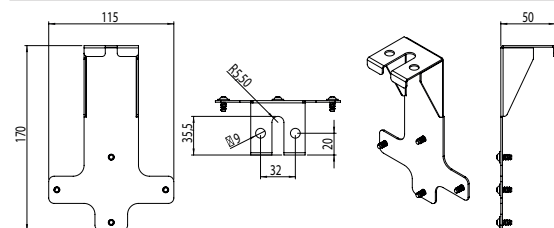
Zone 2.21 / 2.22
EX II 3G Ex nR IIC TX Gc
EX II 2D Ex tb IIIC TXX°C Db

LINEX ZONE 2.21

This equipment is an explosion-proof Zone-2.21 LED luminaire. It has Protection Classes "ec" in Zone 2 for explosive gas atmosphere and Protection Classes "tb" in Zone 21 for explosive dust atmosphere. The LEDs and driver are housed in an IP66 protected enclosure. All cables, glands and terminals are certified. The appearance of each model is identical. The main differences are Length, power and product features.

CE | Ex | ATEX | 1F | 3F | CB

Exproof Product Features

Zone	: Zone 2 / Zone 21
Group / Category	: II / 3G / 2D
Protection Classss	: Gc / Db
Explosion Group	: IIC / IIIC
Maximum Surface Temperature Class	: T6 / T85°C
Certificate Code	: EX II 3G Ex ec IIC T6 Gc EX II 2D Ex tb IIIC T85°C Db

Electrical and Optical Properties

Light Source	: LED
Consumption Power	: 25W / 30W / 34W / 40W / 56W / 64W / 73W / 79W
Lumen	: 3267 lm / 3945 lm / 4453 lm / 5277 lm / 7417 lm / 8340 lm / 9443 lm / 10328 lm
Input Voltage	: 220-240V (50-60 Hz)
Colour Temperature	: 2700K / 3000K / 4000K / 5000K / 5700K / 6500K
CRI	: ≥ 80
Optical	: Wide Angle 120°

Other Features

Support Type	: Surface Mount
Housing Colour	: RAL 9016 (Gray White)

Dimensions

Width	: 88 mm
Length	: 70 mm
Height	: 1200 mm
Weight	: 1,9 - 2,5 Kg

Mechanical Features

Housing	: Aluminum Extrusion Housing
Luminaire Surface	: PC Opal Diffuser
Sealing	: High Temperature Resistant Silicone Gasket
Gland (Inlet)	: 1 x M20 Plastic Ex
Gland (Outlet)	: 1 x M20 Plastic Ex
Screws and bolts	: AISI 316 Stainless Steel
IP	: IP66

Options

Rakor	: M20 Armored Gland
Emergency Kit	: Yes (1-3 Hours)

0 °C +65 °C
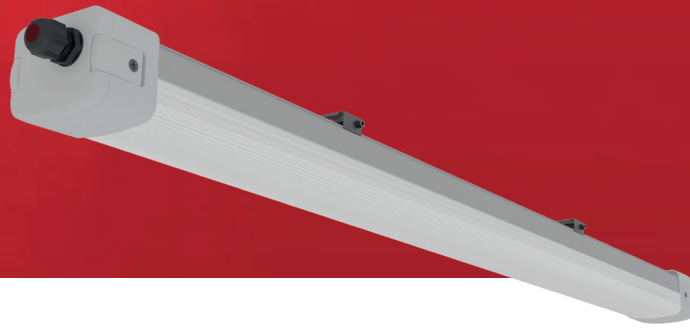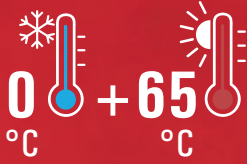
Support Tools

Hanger Spring (Comes With Product)
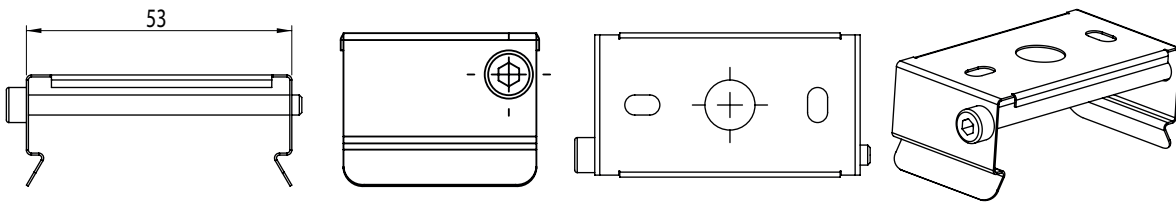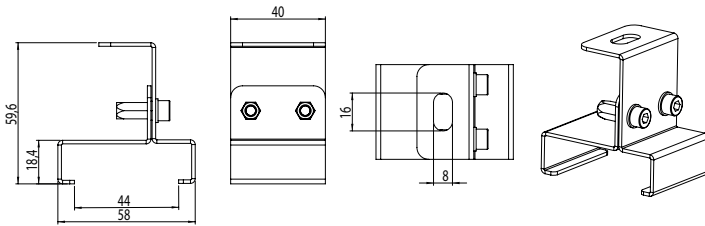
53

Fixed Hanger Set

40
59,6
18,4
16
44
58
8

| Order Code | 3339935 |
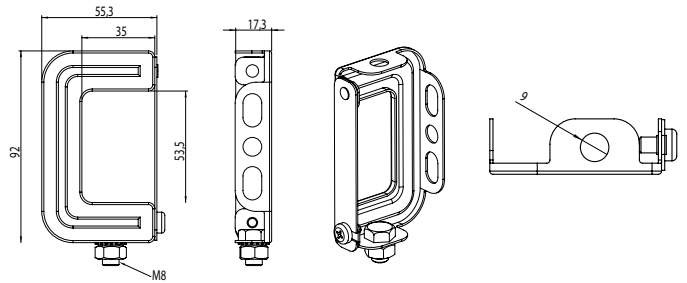
Angled Hanger Set

105,7
57,9

| Order Code | 3330579 |

Tube Hanger Set

Ø36-38
121
18,4
21
40
44
58

| Order Code | 3339933 |

Busbar Hanger Set

55,3
35
17,3
92
53,5
9
M8

| Order Code | 3330966 |

Elevator Hanger Kit

13,4
M8
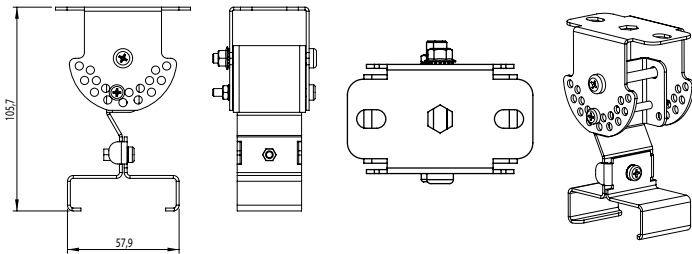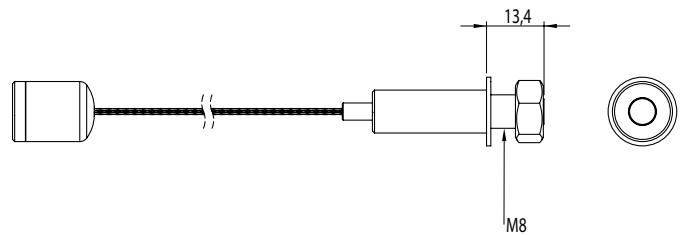
Order Code	3142319 - M8X13,5 - 50CM
	3142320 - M8X13,5 - 100CM
	3142321 - M8X13,5 - 150CM
	3142322 - M8X13,5 - 200CM
	3142323 - M8X13,5 - 300CM
	3142324 - M8X13,5 - 500CM
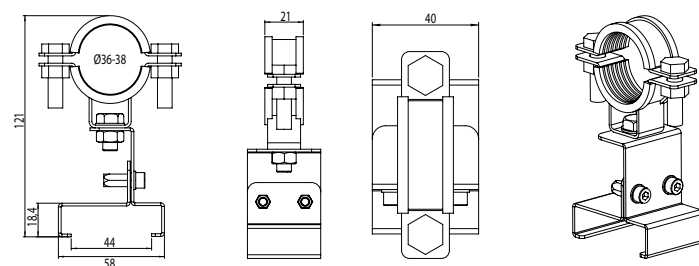
Zone 2.21 / 2.22
EX II 3G Ex ec IIC T6 Gc
EX II 2D Ex tb IIIC T85°C Db

EAE Lighting
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