



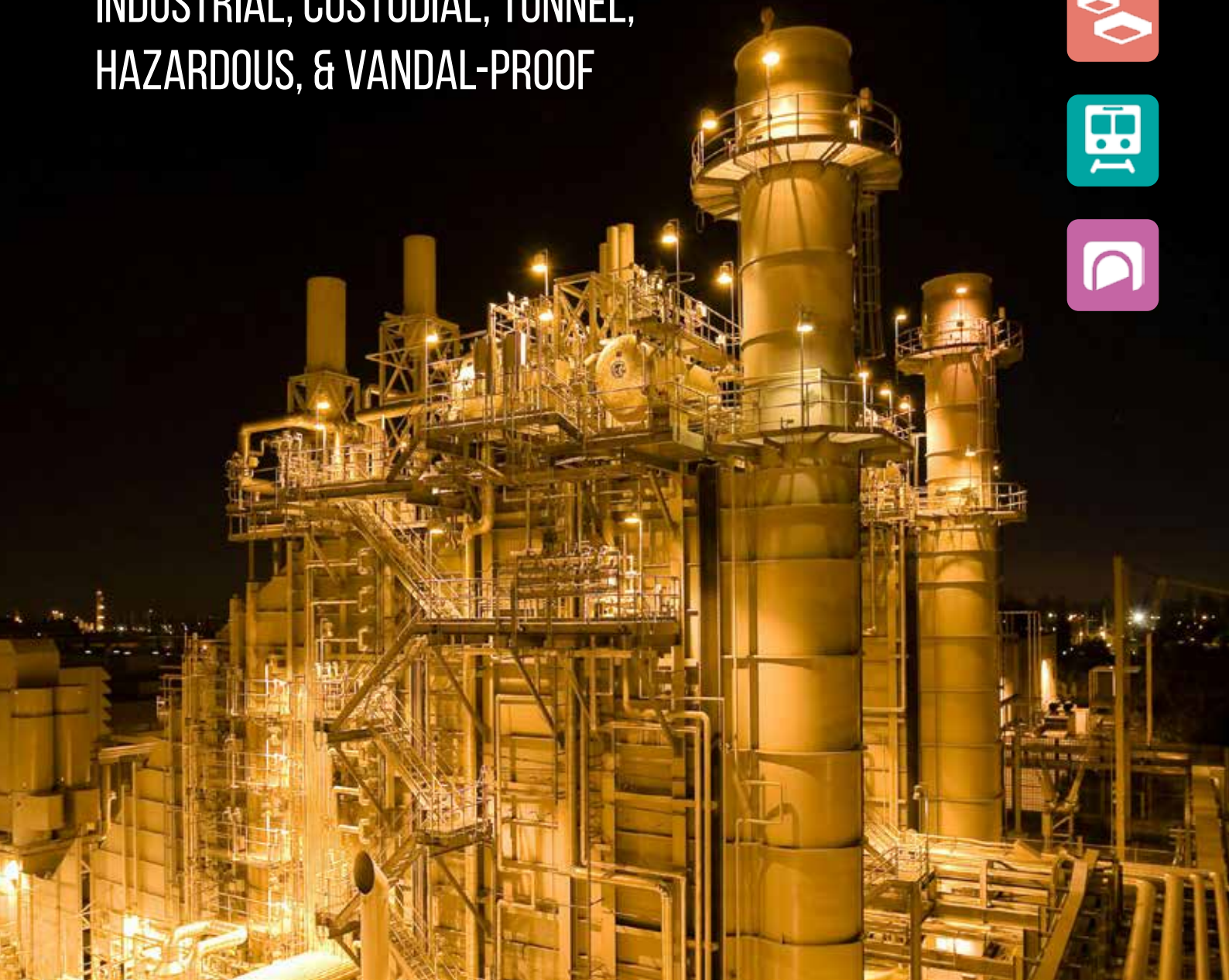
ZONE
1, 21

ZONE
2, 22



LIGHTING CATALOGUE

INDUSTRIAL, CUSTODIAL, TUNNEL,
HAZARDOUS, & VANDAL-PROOF



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WELCOME TO YESSS INDUSTRIAL

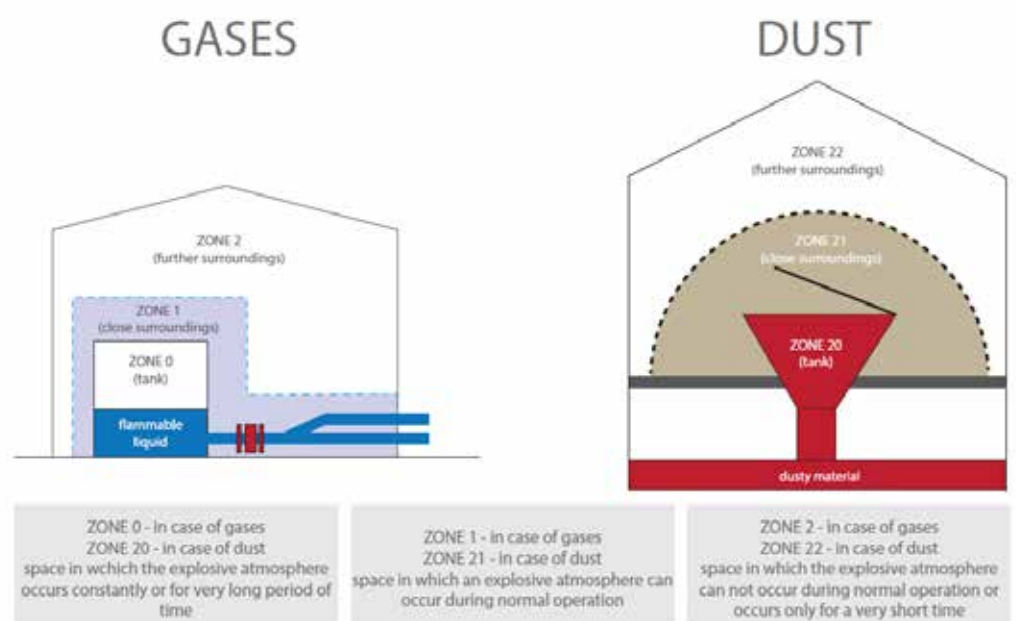
AT **YESSS INDUSTRIAL** OUR PURPOSE IS TO CREATE SUPERIOR
VALUE FOR OUR CUSTOMERS BY DELIVERING WORLD CLASS
SUPPLIES, SERVICE AND SOLUTIONS

KNOWLEDGE BASE

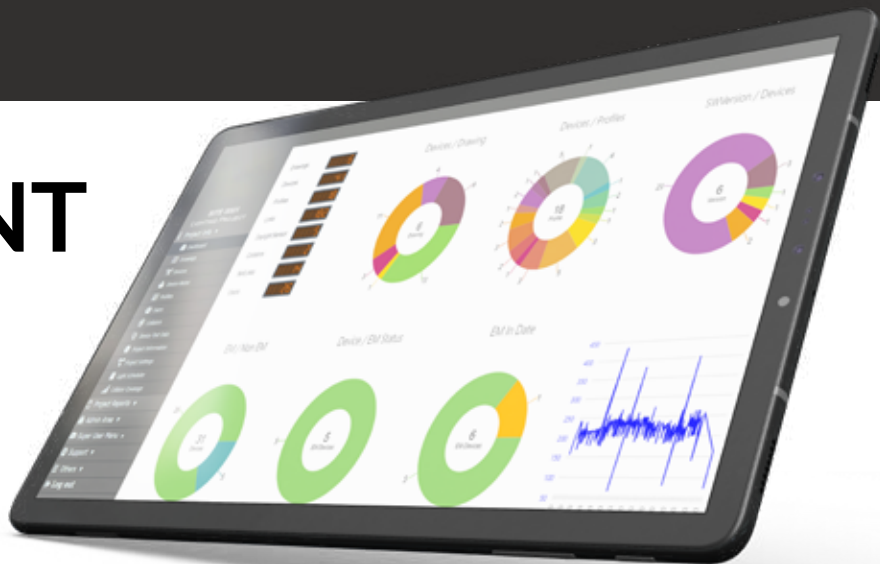
According to the ATEX directive (from fr. Atmosphères Explosibles) 2014/34/EU of the European Parliament, all products intended for work in potentially explosive atmospheres must meet strict safety and health requirements. The level of essential safeguards and the related assessment procedures depend directly on the level of threat and the environment in which the device will operate.

The ATEX Certificate is issued by an accredited certification unit as a confirmation of a positive result of thorough research including the design, prototype and production process along with constant monitoring of the final product as well as periodic audits of the production plant.

As a zone of explosion hazard, one should understand the space in which mixtures of gases, vapors, mists and / or flammable dusts with air can occur. Depending on the source and frequency of occurrence of the threat, we divide the zones into:



INTELLIGENT ATEX



Our ATEX-certified lighting solutions offer a seamless installation experience, requiring only a basic LNE connection and eliminating the need for intricate setups or extensive wiring knowledge. Designed with both contractors and end clients in mind, these luminaires feature an intuitive user interface and are equipped with controllers and sensors that communicate using 868MHz technology for efficient operation. The straightforward tablet commissioning and cloud monitoring capabilities ensure easy setup and remote oversight, while the certification for hazardous environments guarantees safety and adaptability.

CONNECTIVITY & INTEGRATION

Level 1

- Unlimited linking between devices
- Independent daylight grouping for an unlimited number of luminaires
- Optional wireless scene control based on the working environment

Level 2

- Emergency lighting alerts
- Energy monitoring and heat mapping
- Seven-day scheduling & remote control

Level 3

- Console control offering full functionality via PC's, laptops, tablets, and smart phones for the entire site (except where appropriate)

FITTINGS

HAZPRO-SMARTEX

ZONE 1

ZONE 1, 21, 2, 22
EMERGENCY OPTIONS
POLYCARBONATE DIFFUSER
HEAVY DUTY AL END CAPS
IP66- IK10
THROUGH WIRE OPTION
2150- 10740 LUMEN OUTPUT
EMERGENCY OPTIONS



PRIMA LED EX

ZONE 2

ZONE 2, 22
5 YEAR WARRANTY
50000Hr OPERATION LIFE
IP66 - IK10
THROUGH WIRING, AC/DC CONTROL
2600- 11000 LUMENS
EMERGENCY OPTIONS



EXL390

ZONE 2 - CLEAN ROOM

ZONE 2, 22
5 YEAR WARRANTY
50000Hr OPERATION LIFE
IP66 - IK10
THROUGH WIRING, AC/DC CONTROL
2600- 8800 LUMENS
EMERGENCY OPTIONS



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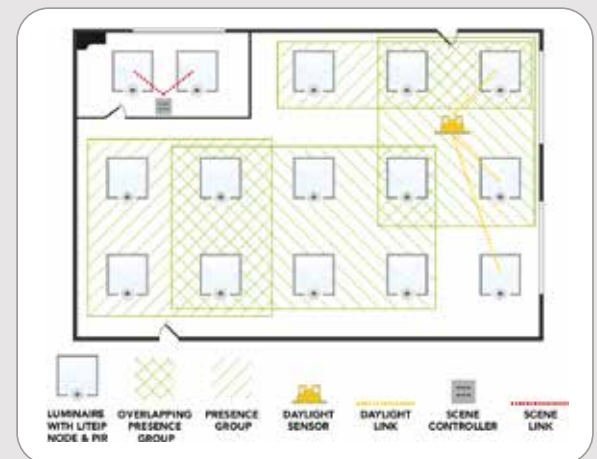
ATEX FEATURES

The ATEX intelligent lighting system is complemented by additional components enhancing its functionality: **Collators**, integrated within the luminaire housing, connect up to 1000 devices via 3G, Wi-Fi, or Ethernet, managing emergency and energy data in the cloud, and facilitating remote adjustments. **Scene Controllers**, operated by key fobs and usable outside ATEX zones, allow lighting control within their range. The **Report Scheduler** autonomously dispatches reports to designated departments, including engineering and facilities management, on a daily, weekly, monthly, or immediate basis, aiding in minimizing maintenance downtime through timely updates.

LUMINAIRE GROUPING

In the lighting system setup, luminaires, daylight sensors, and scene controllers exclusively use LNE connections. Each luminaire integrates control nodes and occupancy sensors, enabling advanced control. Grouped based on occupancy, luminaires operate synchronously.

Remote daylight sensors wirelessly connect to luminaires near natural light, while scene controllers offer localized control over luminaire groups. This streamlined arrangement enhances efficiency and adaptability in diverse environments.



HEAT MAPPING

Individual luminaire data is presented with color-coded indicators for quick reference, aiding in the identification of areas for potential energy-saving improvements. Complementing this data, heat-mapping offers visual representations of energy usage, utilization, and occupancy levels across each site.

Darker colors on the heat maps signify heightened activity, providing valuable insights into usage patterns. These findings empower decision-makers to fine tune lighting configurations and implement strategies to boost energy efficiency effectively.



ENERGY ANALYSIS

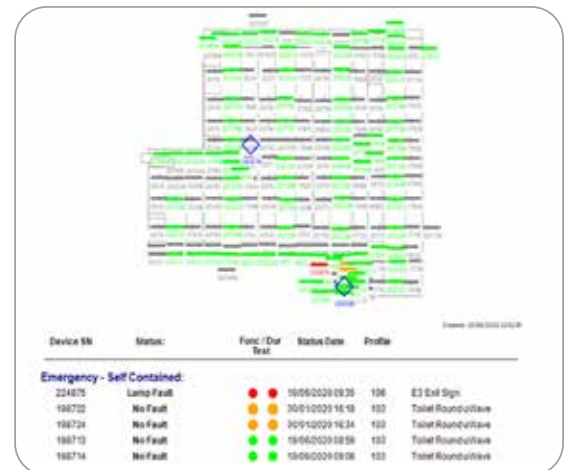


Data can be displayed for one week, 3 months, or 12 months to track luminaire usage trends, either for individual commissioned drawings or the entire site. It includes metrics such as Kw/h when occupied, Kw/h saved when occupied, and Kw/h when unoccupied.

The Dashboard compiles on-site commissioning engineer input in the 'profiles' section to create visual graphs showing various energy consumption data, including rolling energy graphs by area, an annual energy report, and heat maps.

EMERGENCY REPORTING

The dashboard displays real-time emergency luminaire status, identifying issues with batteries, charging, and lamps. It complies with BS EN 62034:2012, replacing yearly manual tests with automated full duration tests after 13 cycles of 28 days. Emergency statuses are accessible on-demand, and users can schedule email reports for staff daily, weekly, or monthly.

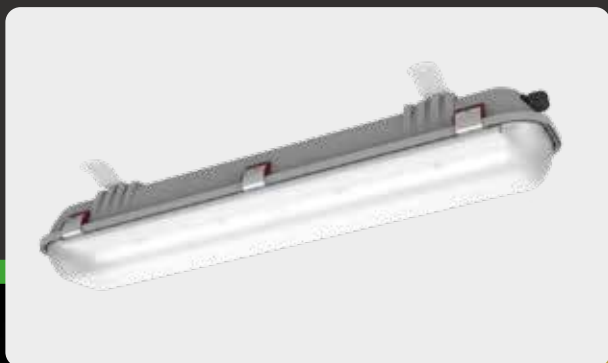


REPORT SCHEDULER

In the lighting system setup, luminaires, daylight sensors, and scene controllers exclusively use LNE connections. Each luminaire integrates control nodes and occupancy sensors, enabling advanced control. Grouped based on occupancy, luminaires operate synchronously.

Remote daylight sensors wirelessly connect to luminaires near natural light, while scene controllers offer localized control over luminaire groups. This streamlined arrangement enhances efficiency and adaptability in diverse environments.

Zone 1





Zone 1, 21

Linear LED lighting fixture in aluminium.
Available emergency variant -60°C to +60°C



OFFSHORE



ONSHORE



AGRIBUSINESS



CHEMICAL



LOW TEMP.



NAVAL

Tritex-Z1: CE 0722 Ex II 2GD - Ex db eb mb IIC T.. Gb - Ex tb IIIC T.. °C Db - IP66

MECHANICAL FEATURES

Body: Aluminium alloy extrusion and end caps, resistant to atmospheric and marine corrosion

Clear part: Glass resistant to shocks, impact and UV rays

Gaskets: Acid and hydrocarbon resistant silicone

Internal frame: Aluminium extrusion

Screws: Stainless steel

Entry points: Standard version with 4 holes Ø20.5 through Wired + Loop-in-Loop out

Assembly: Fastening brackets for M8 holes, adjustable 0° to ±30°

ELECTRICAL FEATURES

Power unit: Electronic

Rated voltage: 110-277 Vac (for more information, see the Selection tables)

Rated frequency: 50/60 Hz

Connection: Directly to the terminal board L, N, Pe cross sec. max. 4 mm² jumpered terminal board suitable for in-out from a single side

Emergency unit: Electronic inverter 110/277 Vac 50/60 Hz, 110/270 Vdc. Batteries Ni/Mh, 1.8 Ah or 3 Ah, 6V Battery charging monitored by high luminosity green LED

Cabling: Rigid cables for high temperatures

CERTIFICATE DATA

Installation: Zone 21

Ambient Temperature: -60°C for models without a battery, -20°C or -60°C for versions with a battery. (For all ambient temperature ranges please see the "selection table").

Degree of Protection: IP66



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TEMPERATURE CLASSES AND MAXIMUM SURFACE TEMPERATURES

NORMAL OPERATION

Code	Real power Watt	Rated power Watt	Supply voltage Volt	Temperature class / Maximum surface temperature			Lumen Im	Light intensity cd	Overall efficiency Lm/W	Weight (kg)	Size (mm)
				+40°C	+50°C	+60°C					
Tritex-Z1-0315	13,9	15,0	220-240 Vac	T62°C/T6	T67°C/T6	T77°C/T5	1865	738	134	1,5	541x103x132
Tritex-Z1-0330	26,6	30,0	220-240 Vac	T58°C/T6	T73°C/T5	T78°C/T4	3697	1345	140	1,5	541x103x132
Tritex-Z1-0615	15,0	15,0	220-240 Vac	T62°C/T6	T67°C/T6	T77°C/T5	2008	777	134	2,5	840x103x132
Tritex-Z1-0630	26,2	30,0	110-277 Vac	T85°C/T6	T90°C/T5	T100°C/T4	3677	1345	140	2,5	840x103x132
Tritex-Z1-0645	43,5	45,0	220-240 Vac	T88°C/T6	T93°C/T5	—	6200	2248	143	2,5	840x103x132
Tritex-Z1-0660	54,5	60,0	220-240 Vac	T100°C/T6	—	—	8011	2924	147	2,5	840x103x132
Tritex-Z1-1230	29,0	30,0	110-277 Vac	T65°C/T6	T70°C/T6	T80°C/T5	4112	1451	142	3,5	1398x103x132
Tritex-Z1-1260	55,7	60,0	220-240 Vac	T85°C/T6	T90°C/T5	T100°C/T4	8316	2930	149	3,5	1398x103x132
Tritex-Z1-1290	79,3	90,0	110-277 Vac	T94°C/T6	T99°C/T4	T109°C/T4	12228	4323	154	3,5	1398x103x132
Tritex-Z1-12120	102,6	120,0	220-240 Vac	T96°C/T5	T101°C/T4	—	16029	5662	156	3,4	1398x103x132
Tritex-Z1-1590	78,6	90,0	110-277 Vac	T94°C/T6	T99°C/T4	T109°C/T4	11926	4204	152	4,0	1738x103x132

NORMAL OPERATION + EMERGENCY

Code	Real power Watt	Rated power Watt	Supply voltage Volt	Temperature class / Maximum surface temperature			Lumen Im **	Discharge time (m)	Weight (kg)	Size (mm)
				+40°C	+50°C	+60°C				
Tritex-Z1-0615N	15,0	15,0	220-240 Vac	T62°C/T6	T67°C/T6	T77°C/T5	980	90	3,0	840x103x132
Tritex-Z1-0630N	26,2	30,0	220-240 Vac	T85°C/T6	T90°C/T5	T100°C/T4	980	90	3,0	840x103x132
Tritex-Z1-1230N*	29,0	30,0	110-277 Vac	T65°C/T6	T70°C/T6	T80°C/T6	994	180	4,5	1398x103x132
Tritex-Z1-1260N*	55,7	60,0	220-240 Vac	T85°C/T6	T90°C/T5	T100°C/T4	994	180	4,5	1398x103x132
Tritex-Z1-1590N*	78,6	90,0	110-277 Vac	T94°C/T6	T99°C/T4	T109°C/T4	932	180	5,0	1738x103x132

EMERGENCY OPERATION ONLY

Code	Supply voltage Volt	Temperature class / Maximum surface temperature			Lumen Im **	Discharge time (m)	Weight (kg)	Size (mm)
		+40°C	+50°C	+60°C				
Tritex-Z1-0615E*	110-277 Vac	T62°C/T6	T67°C/T6	T77°C/T5	1167	90	2,5	840x103x132
Tritex-Z1-1230E*	110-277 Vac	T65°C/T6	T70°C/T6	T80°C/T5	1151	90	3,5	1398x103x132



Zone 1, 21

Tempered glass, resistant to impact & high temperatures, and sealed in an aluminium body.



OFFSHORE



ONSHORE



PETROLEUM
REFINERIES



ANTI-LIGHT
POLLUTION



CHEMICAL



PERIMETER
ZONE LIGHTING



PETROLEUM
PONTOON LOADING

GlowEx-Z1 0722 II 2GD - Ex db eb mb IIC T.. Gb - Ex tb IIIC T.. °C Db - IP66

MECHANICAL FEATURES

Body: Aluminium alloy with low copper content. With cooling fins for high levels of heat dissipation.

Front glass: Tempered glass, resistant to high temperatures and impacts

Seals: Silicone resistant to acids, hydrocarbons and high temperatures

Fastening bracket: Galvanized steel

Screws: Stainless steel

Entry points: 1xØ20 entry point. Fixture complete with a NAV20SIB cable gland

Coating: Polyester RAL 7035 (Light grey)

Corrosion resistant: The standard of the aluminium alloy used has passed the tests required by the Standard EN60068-2-30 (hot-humid cycles) and EN60068-2-11 (salt fog test).

FIXTURE IN DETAIL

Aluminium alloy lighting fixture **lid** painted in RAL7035 light grey.

Internally they house: L, N, PE connection terminals, Max. 4sqmm cross-section.

Resin electronic power unit in accordance with EN/IEC 60079-0 and EN/IEC 60079-18EN/18.

Aluminium alloy lighting fixture **body** painted in RAL7035 light grey.

CERTIFICATE DATA

Classification: Group II, category 2GD/3G

Installation: Zone 2, 21 (GlowEx-Z1)

Ambient Temperature: -60°C to +60°C

Degree of protection: IP66

Certificate:

ATEX CML 21 ATEX 4607X (GlowEx-Z1)
ATEX CML 21 ATEX 3610X (GlowEx-Z2)
IEC Ex CML 21.0070X, UKEX available

Temperature class: Please see 'selection table' for all permitted ambient temperature classes



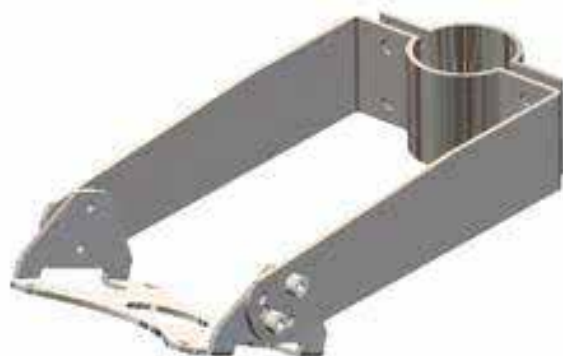
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GLOWEX SERIES SELECTION TABLE

NORMAL OPERATION

Code	Real power Watt	Rated power Watt	Temperature class / Maximum surface temperature				Lumen Im	Light intensity cd	Overall efficiency Lm/W	Weight (kg)	Size (mm)
			+40°C	+50°C	+55°C	+60°C					
GlowEx-Z1-060030	32,8	30	T6/73°C	T5/83°C	T5/88°C	T5/93°C	4785	1700	146	3,2	285x245x135
GlowEx-Z1-060040	38,8	40	T6/73°C	T5/83°C	T5/88°C	T5/93°C	5531	1966	143	3,2	285x245x135
GlowEx-Z1-060050	46,7	50	T6/73°C	T5/83°C	T5/88°C	T5/93°C	6389	2273	137	3,2	285x245x135
GlowEx-Z1-060060	55,6	60	T6/73°C	T5/83°C	T5/88°C	T5/93°C	7285	2592	131	3,2	285x245x135
GlowEx-Z1-080070	69,1	70	T5/86°C	T4/96°C	T4/101°C	T4/106°C	9547	3438	138	4,2	305x305x140
GlowEx-Z1-080080	79,4	80	T5/86°C	T4/96°C	T4/101°C	T4/106°C	10646	3834	134	4,2	305x305x140
GlowEx-Z1-080090	89,2	90	T5/86°C	T4/96°C	T4/101°C	T4/106°C	11641	4197	129	4,2	305x305x140
GlowEx-Z1-080100	101,7	100	T5/86°C	T4/96°C	T4/101°C	T4/106°C	12708	4582	125	4,2	305x305x140
GlowEx-Z1-100120	117,0	120	T6/74°C	T5/84°C	T5/89°C	T5/94°C	17687	6221	151	7,8	405x405x145
GlowEx-Z1-100140	136,5	140	T6/74°C	T5/84°C	T5/89°C	T5/94°C	20154	7882	148	7,8	405x405x145
GlowEx-Z1-100160	156,6	160	T6/74°C	T5/84°C	T5/89°C	T5/94°C	22422	7882	143	7,8	405x405x145
GlowEx-Z1-100180	173,6	180	T5/85°C	T5/95°C	T4/100°C	T4/105°C	24218	8513	140	7,8	405x405x145
GlowEx-Z1-100200	190,1	200	T5/85°C	T5/95°C	T4/100°C	T4/105°C	25709	9040	135	7,8	405x405x145
GlowEx-Z1-100220	214,2	220	T5/85°C	T5/95°C	T4/100°C	T4/105°C	27961	9837	131	7,8	405x405x145

MOUNTING ACCESSORIES



EXF450LED

Zone 1, 21

3 hour integral emergency available
(emergency luminous Flux-900 lumens)



OFFSHORE



CHEMICAL
WAREHOUSES



CHEMICAL



REFINERIES



II 2G Ex eb mb IIC T4/T5 Gb
II 2D Ex tb IIIC T80... 115°C Db

PHOTOMETRICAL PARAMETERS

CRI: >80, >90 optionally

Colour temperature: 4000k, 6000k

Light pulsation: SVM<0,01 | acc. with IEC TR 61547-1:2020

Flicker indicator: PstLM <0,3 \ acc. with IEC TR 61547-1:2020

WORK PARAMETERS

Ambient Temperatures: -40°C up to +65°C

Lifetime: >50.000h L80 B10 |
>70.000h L70 B10

MECHANICAL FEATURES

Housing: Anodized aluminum

Diffuser: Tempered glass

Ingress protection: IP66, IP67

Protection class: I

Shock resistance: GL: IK09

Mounting: On the bracket

Mounting accessories: Check mountings

Optional accessories: Protection grid

Wires between the fitting modules: High temperature resistant silicone wires.

ELECTRICAL FEATURES

Connection terminals: 2,5mm² |
6,0mm²-optional

Input voltage: 100-277 V, 50-60 Hz
voltage + 10%

Light source: Intrinsically safe LED
modules

Power factor: >0,98

Cable inlets: Ø20, Ø25

Overvoltage protection: 24E: L-N
6kV, L-PE 10kV



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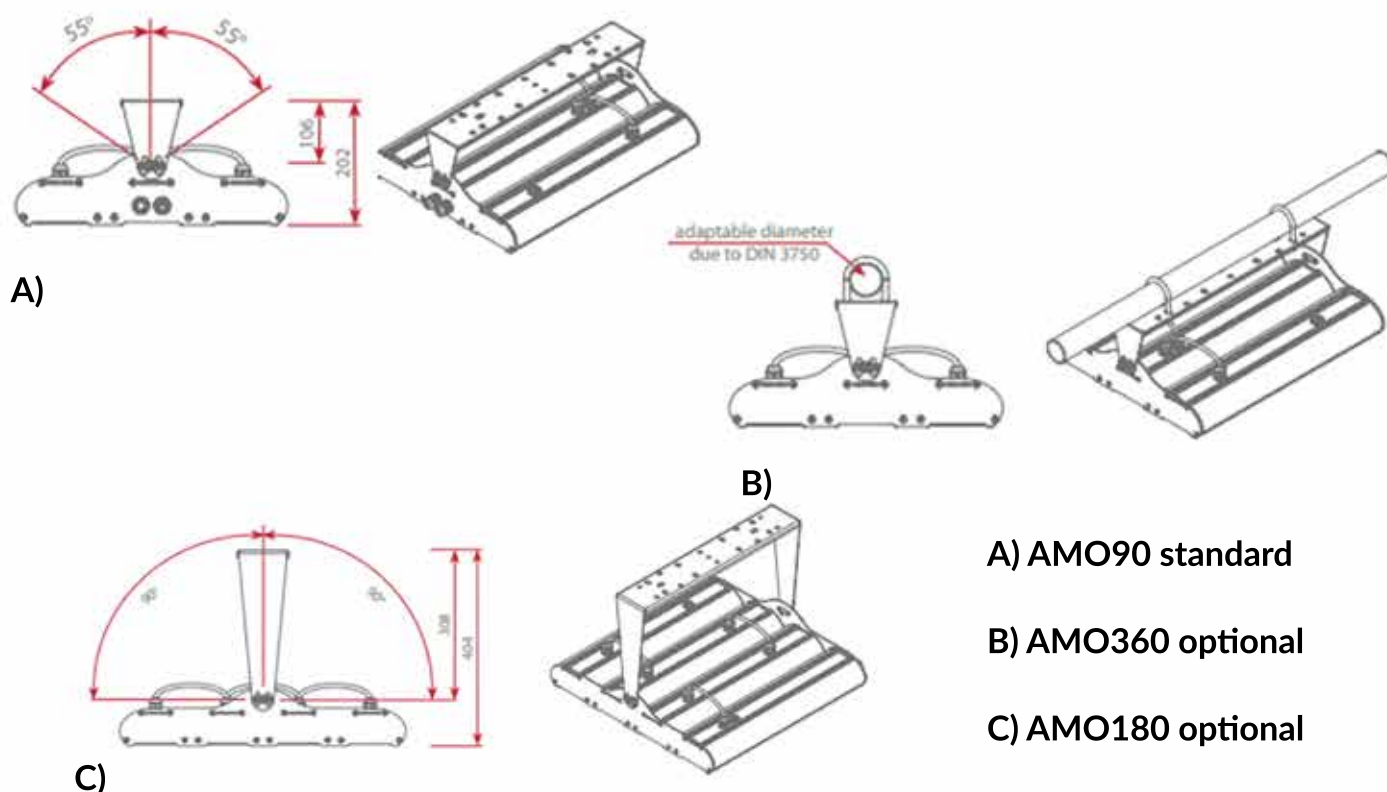
EXF450LED

TYPES COMPARISON

Type of Fitting	Luminous Flux* (lm)	Power Consumption (W)	Efficiency (lm/W)	Ambient Temperature (°C)	Temp. Class / Max. Ambient Temperature
EXF450LED-EY2-1	12500	103	121	-40°C ÷ +60 -40°C ÷ +50	T4/T90°C T5/T80°C
EXF450LED-EY2-2	17500	158	111	-40°C ÷ +50	T4/T95°C
EXF450LED-EY3-1	19000	160	119	-40°C ÷ +55 -40°C ÷ +50	T4/T85°C T5/T80°C
EXF450LED-EY3-2	22500	198	114	-40°C ÷ +55 -40°C ÷ +45	T4/T100°C T5/T90°C
EXF450LED-EY3-3	26100	238	110	-40°C ÷ +50	T4/T115°C
EXF450LED-EY4-1	25000	207	121	-40°C ÷ +55 -40°C ÷ +45	T4/T90°C T5/T80°C

*Luminous flux is indicated for LED modules CRI 80 and STD optics.

MOUNTING ACCESSORIES



EXF250LED

Zone 1, 21



CHEMICAL
WAREHOUSES



PASSAGEWAYS



CHEMICAL



REFINERIES



II 2G Ex eb mb op is IIC T5 Gb
II 2D Ex tb op is IIC T55°C Db or T70°C Db

Certificate: CNBOP no. 3529/2019

MECHANICAL FEATURES

Housing: Glass Fibre Reinforced Polyester (GRP)

Diffuser: Polymethyl Methacrylate (PMMA) or
UV Stabilised Polycarbonate

Ingress protection: IP66, IP67

Protection class: I

Mounting: on the surface or with connections

ELECTRICAL FEATURES

Connection terminals: 2,5mm²

Input voltage: 110-254V 50-60 Hz, 220-250V 0Hz

Light source: Intrinsically safe LED modules

Power factor: >0,97

Cable inlets: Ø20

Overvoltage protection: 2kV

WORK PARAMETERS

Ambient Temperatures: -40°C to +60°C

Lifetime: >70.000h L80 B10

PHOTOMETRICAL PARAMETERS

CRI: >80

Colour temperature: 4000k, 6500K - optional



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EXF250LED

TYPES COMPARISON

VERSION HIGH OUTPUT (HO) +45°C

Type of Lighting	Luminous Flux (lm)	Power Supply (W)	Efficiency (lm/W)	Max. Ambient Temperature (°C)
EXF250LED-0600-F1	1869	21,2	87	45
EXF250LED-0600-F2	3816	38,6	100	45
EXF250LED-1200-F2	4104	38,6	104	45
EXF250LED-1200-F4	7753	78,1	100	45

VERSION HIGH TEMPERATURE (HT) +55°C

Type of Lighting	Luminous Flux (lm)	Power Supply (W)	Efficiency (lm/W)	Max. Ambient Temperature (°C)
EXF250LED-1200-G4	4840	47,0	106	55

VERSION HIGH TEMPERATURE (HT) +60°C

Type of Lighting	Luminous Flux (lm)	Power Supply (W)	Efficiency (lm/W)	Max. Ambient Temperature (°C)
EXF250LED-0600-G2	2566	25,3	102	60
EXF250LED-1200-G2	2468	25,3	98	60

MEAN EMERGENCY MODE LUMINOUS FLUX

Type of Fitting	Version A3 (lm)	Version ZB (lm)
EXF250LED-0600-F1	88	1869
EXF250LED-0600-F2	179	3816
EXF250LED-0600-G2	121	2566
EXF250LED-1200-F2	193	4104
EXF250LED-1200-F4	193	7753
EXF250LED-1200-G2	116	2468
EXF250LED-1200-G4	227	4840

EXF390LED

Zone 1, 21



OFFSHORE



CHEMICAL
WAREHOUSES



PASSAGeways



CLEANROOM



CHEMICAL



REFINERIES



PHARMACEUTICAL



II 2G Ex eb mb op is IIC T5 Gb
II 2D Ex tb op is IIC T70°C Db

MECHANICAL FEATURES

Housing: Powder-coated Stainless Steel

Diffuser: PC type opal or tempered glass

Ingress protection: IP65

Protection class: I

Mounting: Directly to a ceiling or a wall with the use of screws and stainless brackets, suspension with the use of stainless hooks, or attachment with the use of side hangers to the wall (not included in accessories)

Accessories: Depending on the type of ceiling

WORK PARAMETERS

Ambient Temperatures: -40°C to +55°C (check types comparison)

Lifetime: >70.000h L80 B10

ELECTRICAL FEATURES

Connection terminals: 2,5mm²

Input voltage 35E: 220-240V 0/50-60Hz

Input voltage 25E: 110-254V 50+60Hz, 220-240V 0Hz

Light source: Intrinsically safe LED modules

Power factor: >0,97

Cable inlets: Ø20

Overvoltage protection: 2kV

PHOTOMETRICAL PARAMETERS

Colour temperature: 4000K

CRI: >80

POWER SUPPLY 110-254V, 50-60HZ, 220-250V 0Hz (25E)

Type of Lighting	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Ambient Temperature (°C)
EXF390LED-0600-FA4	5230	48,0	109	-40 ÷ 55
EXF390LED-1200-FA2	2615	25,0	105	-40 ÷ 55
EXF390LED-1200-FA4	5230	48,0	109	-40 ÷ 55



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EXF390LED

TYPES COMPARISON

POWER SUPPLY 220-240V, 0/50-60Hz (35E)

Type of Lighting	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Ambient Temperature (°C)
EXF390LED-0600-FA4-1	4047	31,2	130	-40 ÷ 55
EXF390LED-0600-FA4-2	4871	37,4	130	-40 ÷ 55
EXF390LED-0600-FA4-3	5680	43,7	130	-40 ÷ 55
EXF390LED-1200-FA2-1	1957	15,6	126	-40 ÷ 55
EXF390LED-1200-FA2-2	2355	18,7	126	-40 ÷ 55
EXF390LED-1200-FA2-3	2746	21,9	126	-40 ÷ 55
EXF390LED-1200-FA4-1	3913	31,2	126	-40 ÷ 55
EXF390LED-1200-FA4-2	4710	37,4	126	-40 ÷ 55
EXF390LED-1200-FA4-3	5492	43,7	126	-40 ÷ 55

OPTIONAL VERSIONS

MEAN EMERGENCY LUMINOUS FLUX FOR ZB VERSION WITH **35E**

(50% NOMINAL LUMINOUS FLUX)

Type	Luminous Flux (lm)	Ambient Temperature (°C)
EXF390LED-0600-FA4-1	2024	-40 ÷ 55
EXF390LED-0600-FA4-2	2436	-40 ÷ 55
EXF390LED-0600-FA4-3	2840	-40 ÷ 55
EXF390LED-1200-FA2-1	979	-40 ÷ 55
EXF390LED-1200-FA2-2	1173	-40 ÷ 55
EXF390LED-1200-FA2-3	1363	-40 ÷ 55
EXF390LED-1200-FA4-1	1957	-40 ÷ 55
EXF390LED-1200-FA4-2	2355	-40 ÷ 55
EXF390LED-1200-FA4-3	2746	-40 ÷ 55

MEAN EMERGENCY LUMINOUS FLUX FOR A3 VERSION

Type	Luminous Flux (lm)	Ambient Temperature (°C)
EXF390LED-0600-FA4	172	0 ÷ 45
EXF390LED-1200-FA2	280	0 ÷ 45
EXF390LED-1200-FA4	166	0 ÷ 45

MEAN EMERGENCY LUMINOUS FLUX FOR ZB VERSION WITH **25E**

(100% NOMINAL LUMINOUS FLUX)

Type	Luminous Flux (lm)	Ambient Temperature (°C)
EXF390LED-0600-FA4	5230	-40 ÷ 55
EXF390LED-1200-FA2	2615	-40 ÷ 55
EXF390LED-1200-FA4	5230	-40 ÷ 55



Zone 1, 21

For explosion hazard environment group II, category 2 (zone 1, 21 and 2, 22)



OFFSHORE



CHEMICAL
WAREHOUSES



PASSAGEWAYS



CLEANROOM



CHEMICAL



REFINERIES



PHARMACEUTICAL



II 2G Ex eb mb op is IIC T5 Gb
II 2D Ex tb op is IIIC T55°C Db or T70°C Db

Certificate: CNBOP no. 3529/2019

MECHANICAL FEATURES

Housing: Powder-coated steel sheet RAL 9003, or INOX (AISI 304)

Diffuser: Saturated tempered safety glass

Ingress protection: IP66

Impact strength: IK10

Mounting: Includes suspensory eyes 2 x M6, suitable for ceiling and wall

ELECTRICAL FEATURES

Wiring: Optional through-wiring of up to 7 wires at reflector

Cable glands: Metal or armoured ATEX cable glands M20 × 1,5 or M25 × 1,5

Certification: CE, ATEX TÜV CY 21 ATEX 0206562X - TrEx, TrEx Mxh

WORK PARAMETERS

Ambient Temperatures: -40°C to +55°C

Lifetime: 75.000h L80 B50

PHOTOMETRICAL PARAMETERS

CRI: >80

Colour temperature: 4000K - standard

On request CRI: >80: 3000K, 5000K, 5700K

TYPES COMPARISON

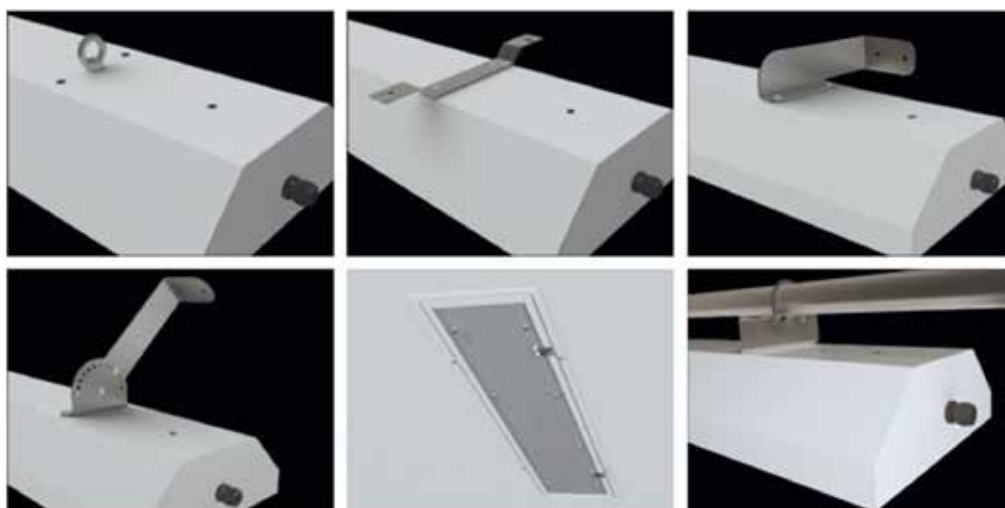
LIGHT FITTING WITHOUT A BATTERY SYSTEM

Type	Min. & Max. Ambient Temperature (°C)	Luminous flux of LED modules (lm)	Luminous flux of light fitting (lm)	System input (W)	System efficiency (lm/W)	Net weight (kg)	A (mm)	D (mm)
TrEx 1.2ft 3200/840	-40/55	2800	2350	19	123	8,3	730	350
TrEx 1.2ft 4400/840	-40/55	4000	3360	27	124	8,3	730	350
TrEx 1.4ft 6400/840	-40/55	5600	4700	35	134	14,6	1300	700
TrEx 1.4ft 8800/840	-40/55	8000	6720	50	134	14,6	1300	700
TrEx 1.5ft 8000/840	-40/55	7000	5880	40	147	17,3	1580	700
TrEx 1.5ft 11000/840	-40/55	10000	8400	59	142	17,3	1580	700
TrEx 2.2ft 6400/840	-40/55	5600	4700	35	134	8,9	730	350
TrEx 2.2ft 8800/840	-40/55	8000	6720	50	134	8,9	730	350
TrEx 2.4ft 12800/840	-40/55	11200	9400	67	140	16,0	1300	700
TrEx 2.4ft 17600/840	-40/55	16000	13440	100	134	16,0	1300	700
TrEx 2.5ft 16000/840	-40/55	14000	11760	80	147	18,9	1580	700
TrEx 2.5ft 22000/840	-40/55	20000	16800	121	138	18,9	1580	700

EM EMERGENCY LIGHTING KIT

Type	Min. & Max. Ambient Temperature (°C)	Emergency light flux of light fitting 1h (lm)	Emergency light flux of light fitting 3h (lm)	Power in standby mode (W)	Battery type	Net weight (kg)
TrEx 1.2ft 4400/840 Mxh	0/40	990	630	2	NiCd HT	+ 1,3
TrEx 1.4ft 8800/840 Mxh	0/40	790	580	2	NiCd Ht	+ 1,3

MOUNTING



EXF400LED

Zone 1, 21



FUEL TANKS



CHEMICAL
WAREHOUSES



PASSAGEWAYS



CHEMICAL



REFINERIES



II 2G Ex eb mb op is IIC T5 Gb
II 2D Ex tb op is IIIC T85°C Db

Certificate: JSHP 22 ATEX 0022X

MECHANICAL FEATURES

Housing: Anodized aluminum

Diffuser: Tempered glass, polycarbonate

Ingress protection: IP66/IP67

Protection class: I

Accessibility: Revision cover

ELECTRICAL FEATURES

Connection terminals: 2,5mm²

Input voltage: 110-254V, 50-60 Hz
220-250V, 0 Hz | 220-240V 0,50-60 Hz

Light source: Intrinsically safe LED modules

Power factor: >0,95

Cable inlets: Ø20 or Ø25

Overvoltage protection: 1kV (L-N), 2kV (I-PE)

WORK PARAMETERS

Ambient Temperatures: -40°C to +55°C

Lifetime: >70.000h L80 B10

PHOTOMETRICAL PARAMETERS

CRI: >80

Colour temperature: 4000K, 6500K-option



FOLLOW US ON SOCIAL MEDIA

EXF400LED

TYPES COMPARISON

POWER SUPPLY 220-240V, 0/50-60Hz (35E)

Type of Fixture	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Ambient Temperature (°C)
EXF400LED-0600-FB1-1	2022	15,7	129	-40 ÷ +55
EXF400LED-0600-FB1-2	2427	18,5	131	-40 ÷ +55
EXF400LED-0600-FB1-3	2831	21,3	133	-40 ÷ +55
EXF400LED-0600-FB2-1	3827	29,5	130	-40 ÷ +55
EXF400LED-0600-FB2-2	4593	34,9	132	-40 ÷ +55
EXF400LED-0600-FB2-3	5358	40,5	132	-40 ÷ +55
EXF400LED-1200-FB2-1	4036	29,7	136	-40 ÷ +55
EXF400LED-1200-FB2-2	4844	35,1	138	-40 ÷ +55
EXF400LED-1200-FB2-3	5651	40,7	139	-40 ÷ +55
EXF400LED-1200-FB4-1	7625	57,5	133	-40 ÷ +55
EXF400LED-1200-FB4-2	9150	68,0	135	-40 ÷ +55
EXF400LED-1200-FB4-3	10675	79,7	134	-40 ÷ +55

POWER SUPPLY 110-254V, 50-60Hz; 220-250V 0Hz (25E)

Type of Fixture	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Ambient Temperature (°C)
EXF400LED-0600-FB1	2993	25,0	120	-40 ÷ +55
EXF400LED-0600-FB2	5664	45,0	126	-40 ÷ +55
EXF400LED-1200-FB2	5974	45,0	133	-40 ÷ +55
EXF400LED-1200-FB4	11285	89,9	126	-40 ÷ +55

VERSION WITH PICTOGRAM

Self-adhesive pictograms can be added optionally. Version with pictogram can be chosen only for FB1 fixture type.

Pictogram dimensions: 600x85mm (LxH)

Pictogram brightness: >200 cd/m²



EXF300LED

Zone 1, 21



OFFSHORE



CHEMICAL
WAREHOUSES



PASSAGEWAYS



CHEMICAL



REFINERIES

II 2G Ex eb mb op is IIC T5 Gb
II 2D Ex tb op is IIIC T55°C Db or T70°C Db

MECHANICAL FEATURES

Housing: Power-coated stainless steel
Diffuser: UV-stabilised polycarbonate
Ingress protection: IP67
Protection class: I
Mounting: on the surface or with connections

ELECTRICAL FEATURES

Connection terminals: 2,5mm²
Input voltage: 110-254V 50-60 Hz, 220-250V 0Hz
Light source: Intrinsically safe LED modules
Power factor: >0,97
Cable inlets: Ø20
Overvoltage protection: 2kV

WORK PARAMETERS

Ambient Temperatures: -40°C to +60°C
Lifetime: >70.000h L80 B10

PHOTOMETRICAL PARAMETERS

CRI: >80
Colour temperature: 4000k, 6500K - optional



FOLLOW US ON SOCIAL MEDIA

EXF300LED

TYPES COMPARISON

VERSION HIGH OUTPUT (HO) +45°C

Type of Fitting	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Max. Ambient Temperature (°C)
EXF300LED-0600-F1	2069	21,2	96	45
EXF300LED-0600-FX2	4326	38,6	112	45
EXF300LED-1200-F2	4177	38,6	106	45
EXF300LED-1200-FX4	8692	78,1	111	45

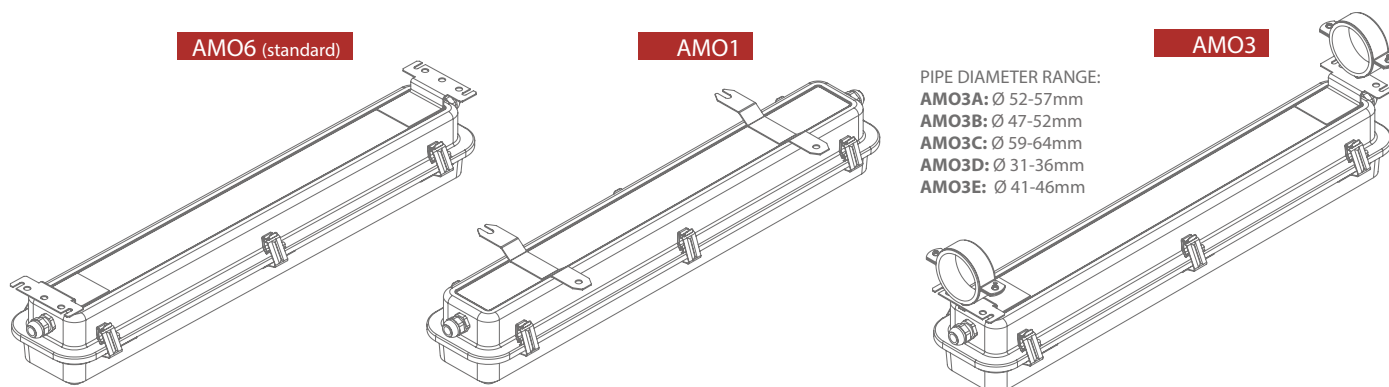
VERSION HIGH TEMPERATURE (HT) +55°C

Type of Fitting	Luminous Flux (lm)	Power Supply (W)	Efficiency (lm/W)	Max. Ambient Temperature (°C)
EXF300LED-1200-GX4	5749	47,0	121	55

VERSION HIGH TEMPERATURE (HT) +60°C

Type of Fitting	Luminous Flux (lm)	Power Supply (W)	Efficiency (lm/W)	Max. Ambient Temperature (°C)
EXF300LED-0600-GX2	2882	25,3	113	60
EXF300LED-1200-G2	2661	25,3	106	60

MOUNTING



HAZ-BULKHEAD

Zone 1, 21



PETROLEUM
REFINERIES



PETROLEUM
PONTOON LOADING



PASSAGEWAYS



CHEMICAL



PERIMETER
ZONE LIGHTING

CE 0722 Ex II 2GD - Ex db op is IIB+H₂ T6 Gb - Ex tb op is IIIC T72°C Db IP 66

MECHANICAL FEATURES

Housing: Low copper content aluminium alloy

Gasket: Silicone resistant to acids, hydrocarbons and high temperatures

Ingress protection: IP66

Mounting: Electrogalvanized steel

ELECTRICAL FEATURES

Connection terminals: 4mm²

Frequency: 50/60 Hz

Rated voltage: Normal operation only: 110-277 Vac / 156-277 Vdc

Emergency operation only: 110-240 Vac / 110-240 Vdc

Normal + emergency operation: 110-240 Vac / 156-240 Vdc

WORK PARAMETERS

Ambient Temperatures:

Normal: -60°C to +60°C

With emergency: -40°C to +60°C

AUTONOMY IN EMERGENCY MODE:

2 Ah: 3 hours

2.5 Ah: 4 hours

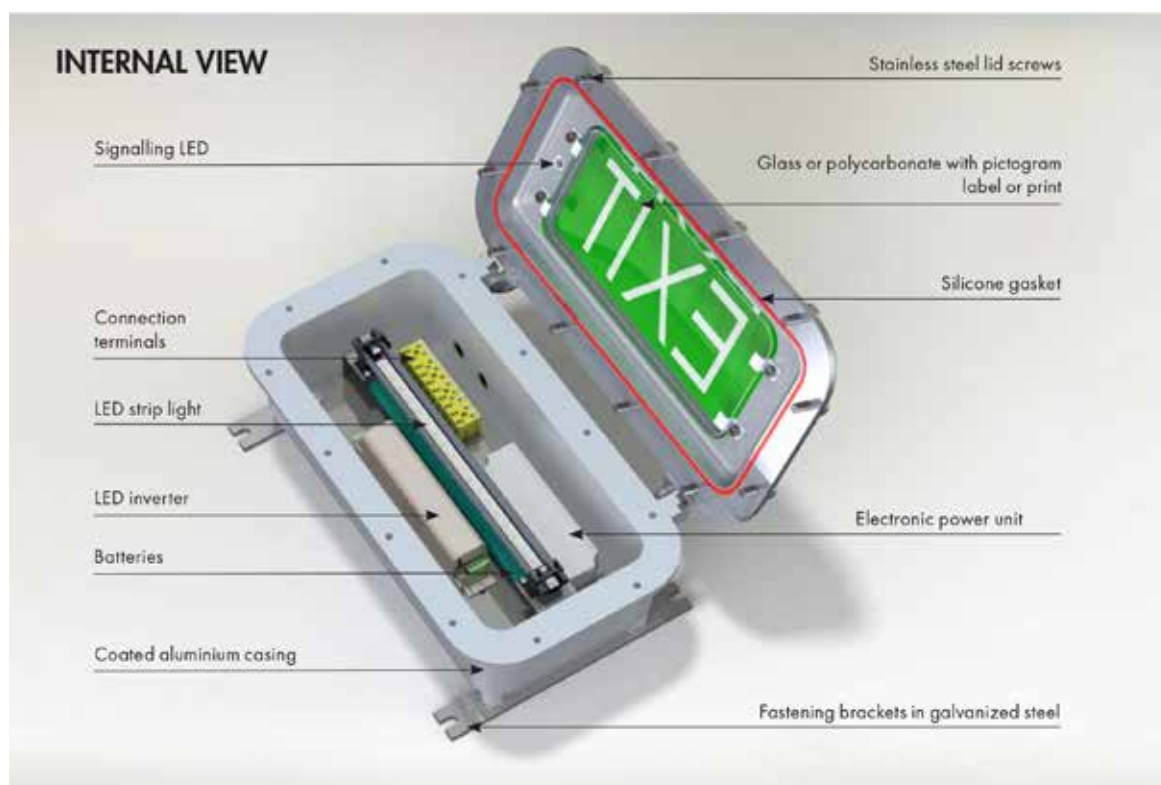
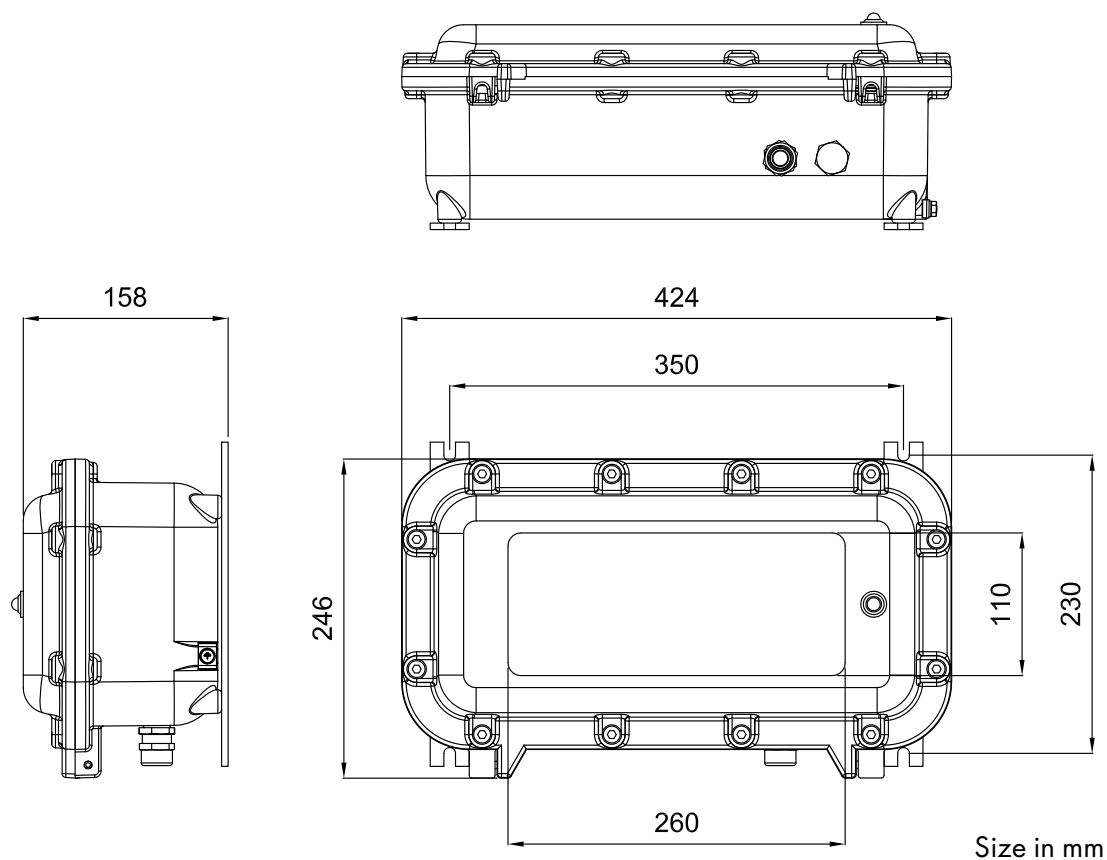
3.1 Ah: 5 hours



FOLLOW US ON SOCIAL MEDIA

HAZ-BULKHEAD

DIMENSIONS



HAZ-STREET

Zone 1, 21, 2, 22



ONSHORE



OFFSHORE



ANTI-LIGHT
POLLUTION



PERIMETER
ZONE LIGHTING



CHEMICAL



PETROLEUM
REFINERIES



PETROLEUM
PONTOON LOADING

CE 0722 Ex II 2GD - Ex eb mb IIC T.. Gb - Ex tb IIIC T.. °C Db - IP66

CE Ex II 3G - Ex nR IIC T.. Gc

MECHANICAL FEATURES

Housing: Aluminium alloy

Gaskets: Silicone resistant to acids, hydrocarbons and high temperatures

Ingress protection: IP66

Mounting: Galvanized steel fastening brackets

ELECTRICAL FEATURES

Connection terminals: 4mm²

Input voltage: 100-277 Vac

Rated Frequency: 50-60 Hz ±5%

Power factor: >0,95

Cable inlets: Ø1 1/2

Overvoltage protection: 4kV

PHOTOMETRICAL PARAMETERS

CRI: >70

Colour temperature: 5700 K

WORK PARAMETERS

Ambient Temperatures: -60°C to +60°C

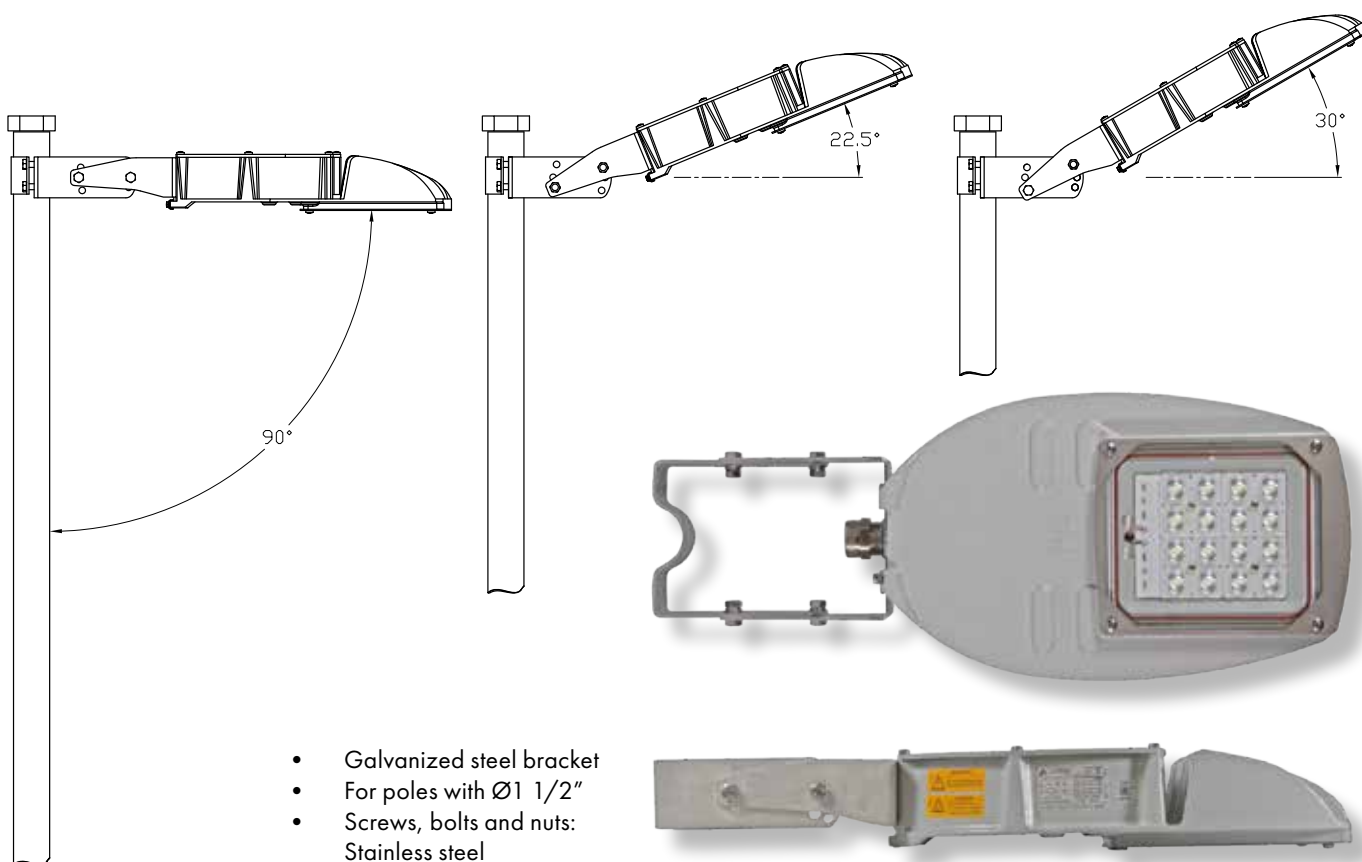


FOLLOW US ON SOCIAL MEDIA

SELECTION TABLE

Code	Real power Watt	Rated power Watt	Temperature class / Maximum surface temperature				Lumen Im	Light intensity cd	Overall efficiency Lm/W
			+40°C	+50°C	+55°C	+60°C			
Haz-Street-Z1-080025...	26	25	T5/93°C	T4/103°C	T4/108°C	T4/113°C	3432	1079	132
Haz-Street-Z1-080050...	52	50	T5/93°C	T4/103°C	T4/108°C	T4/113°C	6865	2159	132
Haz-Street-Z1-080075...	78	75	T5/93°C	T4/103°C	T4/108°C	T4/113°C	10300	3238	132
Haz-Street-Z1-0800100...	95	100	T5/93°C	T4/103°C	T4/108°C	T4/113°C	12480	3973	131
Haz-Street-Z1-100200...	194	200	T5/92°C	T4/102°C	T4/107°C	T4/112°C	24503	7744	126
Haz-Street-Z2-080025...	26	25	T5/93°C	T4/103°C	T4/108°C	T4/113°C	3432	1079	132
Haz-Street-Z2-080050...	52	50	T5/93°C	T4/103°C	T4/108°C	T4/113°C	6865	2159	132
Haz-Street-Z2-080075...	78	75	T5/93°C	T4/103°C	T4/108°C	T4/113°C	10300	3238	132
Haz-Street-Z2-0800100...	95	100	T5/93°C	T4/103°C	T4/108°C	T4/113°C	12480	3973	131
Haz-Street-Z2-100200...	194	200	T5/92°C	T4/102°C	T4/107°C	T4/112°C	24503	7744	126

MOUNTING



CASE STUDY: PEEL PORTS

Our customer, a leading Port Authority in the UK, sought to upgrade their ATEX lighting systems to improve site safety, enhance energy efficiency, ensure a short payback period on investments, and reduce downtime and maintenance.

The objective was to implement advanced lighting solutions that meet stringent safety requirements while delivering operational cost savings and reliability. Through this initiative, the Port Authority aimed to significantly improve the overall efficiency and safety of their port operations.

The Challenge

Developing a smart, easy-to-use ATEX wireless lighting solution for both new and existing (retrofit) facilities without increasing or changing existing wiring.



CASE STUDY: PEEL PORTS



THE SOLUTION

Haz-Pro – Smart-Ex 1

A robust, high-quality LED solution designed and manufactured in Europe, with IECEx and ATEX certifications for operations in Zones 21 and 22, II 2 GD Ex db IIB+H2 T6 Gb Ex tb IIIC T85°C Db, IP66 protection level for operations in temperatures ranging from -20° C to +50° C. Its tubular construction prevents the accumulation of dust, potentially explosive, on the luminaires which is of utmost importance in this type of facilities, facilitating also its cleaning and minimizing risks.

Luminaires Monitoring & Wireless Connectivity: Streamlined monitoring of lighting systems with robust wireless connectivity for real-time updates and alerts.

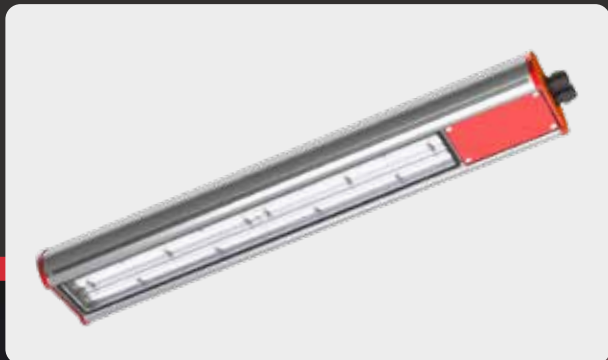
Scalable System & Anomaly Detection: An expandable lighting solution with advanced anomaly detection and proactive maintenance warnings.

Ease of Installation & SCADA Compatibility: Effortless installation process with minimal operational costs, fully compatible with SCADA systems for integrated control.

Resource Optimisation & Scene Adaptation: Intelligent zoning and scene setting for tailored lighting environments, optimizing resources for maximum efficiency.

By leveraging the **Intelligent Lighting System**, the customer achieved a significant enhancement in operational safety, alongside outstanding energy and maintenance cost savings. These efforts have led to a notable reduction in the carbon footprint, culminating in the prestigious “Safest Port” Award. This recognition serves as a testament to the successful application of innovative lighting solutions in creating a safer, more sustainable, and cost-efficient work environment.

Zone 2



FOLLOW US ON SOCIAL MEDIA



Zone 2, 21, 22

Linear LED lighting fixture in aluminium.
Available emergency variant -60°C to +60°C



OFFSHORE



ONSHORE



LOW TEMP.



CHEMICAL



WASTE WATER
TREATMENT



NAVAL

Tritex-Z2: CE 0722 Ex II 2GD - Ex tb IIIC T.. °C Db - IP66
CE Ex II 3G - Ex ec IIC T.. Gc

MECHANICAL FEATURES

Body: Aluminium alloy extrusion and end caps, resistant to atmospheric and marine corrosion

Clear part: Glass resistant to shocks, impact and UV rays

Gaskets: Acid and hydrocarbon resistant silicone

Internal frame: Aluminium extrusion

Screws: Stainless steel

Entry points: Standard version with 4 holes Ø20.5 through Wired + Loop-in-Loop out.

Assembly: Fastening brackets for M8 holes, adjustable 0° to ±30°

ELECTRICAL FEATURES

Power unit: Electronic

Rated voltage: 110-277 Vac (for more information, see the Selection tables)

Rated frequency: 50/60 Hz

Connection: Directly to the terminal board L, N, Pe cross sec. max. 4 mm² jumpered terminal board suitable for in-out from a single side

Emergency unit: Electronic inverter 110/277 Vac 50/60 Hz, 110/270 Vdc. Batteries Ni/Mh, 1.8 Ah or 3 Ah, 6V Battery charging monitored by high luminosity green LED

Cabling: Rigid cables for high temperatures

CERTIFICATE DATA

Installation: Zone 2, 21, 22

Ambient Temperature: -60°C for models without a battery, -20°C or -60°C for versions with a battery. (For all ambient temperature ranges please see the "selection table").

Degree of Protection: IP66

SELECTIONS TABLE

NORMAL OPERATION

Code	Real power Watt	Rated power Watt	Supply voltage Volt	Temperature class / Maximum surface temperature			Lumen Im	Light intensity cd	Overall efficiency Lm/W	Weight (kg)	Size (mm)
				+40°C	+50°C	+60°C					
Tritex-Z2-0615	15,0	15,0	220-240 Vac	T62°C/T6	T67°C/T6	T77°C/T5	2008	777	134	2,0	840x103x132
Tritex-Z2-0630	26,2	30,0	220-240 Vac	T85°C/T6	T90°C/T5	T100°C/T4	3677	1345	140	2,0	840x103x132
Tritex-Z2-0645	43,5	45,0	220-240 Vac	T88°C/T6	T93°C/T5	—	6200	2248	143	2,0	840x103x132
Tritex-Z2-0660	54,5	60,0	220-240 Vac	T100°C/T6	—	—	8011	2924	147	2,0	840x103x132
Tritex-Z2-1230	29,0	30,0	220-240 Vac	T65°C/T6	T70°C/T6	T80°C/T5	4112	1451	142	3,0	1398x103x132
Tritex-Z2-1260	55,7	60,0	220-240 Vac	T85°C/T6	T90°C/T5	T100°C/T4	8316	2930	149	3,0	1398x103x132
Tritex-Z2-1290	79,3	90,0	220-240 Vac	T94°C/T6	T99°C/T4	T109°C/T4	12228	4323	154	3,0	1398x103x132
Tritex-Z2-1590	78,6	90,0	220-240 Vac	T94°C/T6	T99°C/T4	T109°C/T4	11926	4204	152	3,5	1398x103x132

NORMAL OPERATION + EMERGENCY

Code	Real power Watt	Rated power Watt	Supply voltage Volt	Temperature class / Maximum surface temperature			Lumen Im **	Discharge time (m)	Weight (kg)	Size (mm)
				+40°C	+50°C	+60°C				
Tritex-Z2-0615N	15,0	15,0	220-240 Vac	T62°C/T6	T67°C/T6	T77°C/T5	980	90	3,0	840x103x132
Tritex-Z2-0630N	26,2	30,0	220-240 Vac	T85°C/T6	T90°C/T5	T100°C/T4	980	90	3,0	840x103x132
Tritex-Z2-1230N*	29,0	30,0	220-240 Vac	T65°C/T6	T70°C/T6	T80°C/T6	994	180	4,5	1398x103x132
Tritex-Z2-1260N*	55,7	60,0	220-240 Vac	T85°C/T6	T90°C/T5	T100°C/T4	994	180	4,5	1398x103x132
Tritex-Z2-1590N*	78,6	90,0	220-240 Vac	T94°C/T6	T99°C/T4	T109°C/T4	932	180	5,0	1738x103x132

EMERGENCY OPERATION ONLY

Code	Supply voltage Volt	Temperature class / Maximum surface temperature			Lumen Im **	Discharge time (m)	Weight (kg)	Size (mm)
		+40°C	+50°C	+60°C				
Tritex-Z2-0615E*	110-277 Vac	T62°C/T6	T67°C/T6	T77°C/T5	1167	90	2,0	840x103x132
Tritex-Z2-1230E*	110-277 Vac	T65°C/T6	T70°C/T6	T80°C/T5	1151	90	3,0	1398x103x132



Zone 21, 2, 22

Tempered glass, resistant to impact & high temperatures, and sealed in an aluminium body.



OFFSHORE



ONSHORE



PETROLEUM
REFINERIES



ANTI-LIGHT
POLLUTION



CHEMICAL



PERIMETER
ZONE LIGHTING



PETROLEUM
PONTOON LOADING

GlowEx-Z1: CE 0722 Ex II 2GD - Ex db eb mb IIC T.. Gb - Ex tb IIIC T.. °C Db - IP66

MECHANICAL FEATURES

Body: Aluminium alloy with low copper content. With cooling fins for high levels of heat dissipation.

Front glass: Tempered glass, resistant to high temperatures and impacts

Seals: Silicone resistant to acids, hydrocarbons and high temperatures

Fastening bracket: Galvanized steel

Screws: Stainless steel

Entry points: 1xØ20 entry point. Fixture complete with a NAV20SIB cable gland

Coating: Polyester RAL 7035 (Light grey)

Corrosion resistant: The standard of the aluminium alloy used has passed the tests required by the Standard EN60068-2-30 (hot-humid cycles) and EN60068-2-11 (salt fog test).

FIXTURE IN DETAIL

Aluminium alloy lighting fixture **lid** painted in RAL7035 light grey.

Internally they house: L, N, PE connection terminals, Max. 4sqmm cross-section.

Resin electronic power unit in accordance with EN/IEC 60079-0 and EN/IEC 60079-18EN/18.

Aluminium alloy lighting fixture **body** painted in RAL7035 light grey.

CERTIFICATE DATA

Classification: Group II, category 2GD/3G

Installation: Zone 2, 21, 22 (GlowEx-Z1)

Ambient Temperature: -60°C to +60°C

Degree of protection: IP66

Certificate:

ATEX CML 21 ATEX 4607X (GlowEx-Z1)

ATEX CML 21 ATEX 3610X (GlowEx-Z2)

IEC Ex CML 21.0070X, UKEX available

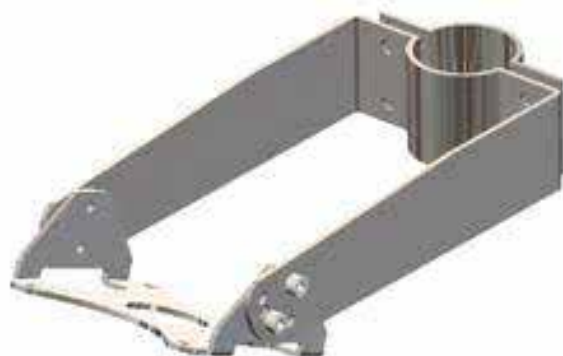
Temperature class: Please see 'selection table' for all permitted ambient temperature classes

GLOWEX SERIES SELECTION TABLE

NORMAL OPERATION

Code	Real power Watt	Rated power Watt	Temperature class / Maximum surface temperature				Lumen Im	Light intensity cd	Overall efficiency Lm/W	Weight (kg)	Size (mm)
			+40°C	+50°C	+55°C	+60°C					
GlowEx-Z2-060030	32,8	30	T6/73°C	T5/83°C	T5/88°C	T5/93°C	4784	1700	146	3,2	285x245x135
GlowEx-Z2-060040	38,8	40	T6/73°C	T5/83°C	T5/88°C	T5/93°C	5531	1966	143	3,2	285x245x135
GlowEx-Z2-060050	46,7	50	T6/73°C	T5/83°C	T5/88°C	T5/93°C	6389	2273	137	3,2	285x245x135
GlowEx-Z2-060060	55,6	60	T6/73°C	T5/83°C	T5/88°C	T5/93°C	7285	2592	131	3,2	285x245x135
GlowEx-Z2-080070	69,1	70	T5/86°C	T4/96°C	T4/101°C	T4/106°C	9547	3438	138	4,2	305x305x140
GlowEx-Z2-080080	79,4	80	T5/86°C	T4/96°C	T4/101°C	T4/106°C	10646	3834	134	4,2	305x305x140
GlowEx-Z2-080090	89,2	90	T5/86°C	T4/96°C	T4/101°C	T4/106°C	11641	4197	129	4,2	305x305x140
GlowEx-Z2-080100	101,7	100	T5/86°C	T4/96°C	T4/101°C	T4/106°C	12708	4582	125	4,2	305x305x140
GlowEx-Z2-100120	117,0	120	T6/74°C	T5/84°C	T5/89°C	T5/94°C	17687	6221	151	7,8	405x405x145
GlowEx-Z2-100140	136,5	140	T6/74°C	T5/84°C	T5/89°C	T5/94°C	20154	7882	148	7,8	405x405x145
GlowEx-Z2-100160	156,6	160	T6/74°C	T5/84°C	T5/89°C	T5/94°C	22422	7882	143	7,8	405x405x145
GlowEx-Z2-100180	173,6	180	T5/85°C	T5/95°C	T4/100°C	T4/105°C	24218	8513	140	7,8	405x405x145
GlowEx-Z2-100200	190,1	200	T5/85°C	T5/95°C	T4/100°C	T4/105°C	25709	9040	135	7,8	405x405x145
GlowEx-Z2-100220	214,2	220	T5/85°C	T5/95°C	T4/100°C	T4/105°C	27961	9837	131	7,8	405x405x145

MOUNTING ACCESSORIES



EXL450LED



Zone 21, 2, 22

3 hour integral emergency available
(emergency luminous Flux-900 lumens)



OFFSHORE



CHEMICAL
WAREHOUSES



CHEMICAL



REFINERIES



II 2G Ex eb mb IIC T4/T5 Gb
II 2D Ex tb IIIC T80... 115°C Db

MECHANICAL FEATURES

Housing: Anodized aluminum

Diffuser: Hardened glass

Ingress protection: IP66, IP67

Protection class: I

Shock resistance: GL: IK09, PC: IK10

Mounting: On the bracket

Mounting accessories: Variable

Optional accessories: Protection grid,
vent plugs

ELECTRICAL FEATURES

Connection terminals: 2,5mm² | 6,0mm²-optional

Input voltage 24E: 100-277 V, 50-60 Hz
voltage + 10%

Input voltage 35E: 100-277 V, 50-60 Hz; 230-431
V, 0 Hz; voltage + 10%

Light source: Intrinsically safe LED modules

Power factor: >0,98

Cable inlets: Ø20, Ø25

Overvoltage protection: 24E: L-N 6kV,
L-PE 10kV 35E: L-N 4kV, L-PE 6kV

WORK PARAMETERS

Ambient Temperatures: -40°C up to +65°C

Lifetime: >50.000h L80 B10 | >70.000h L70 B10

EXL450LED

PHOTOMETRICAL PARAMETERS

CRI: >80, >90 optionally

Colour temperature: 4000k, 6000k

Light pulsation: SVM<0,01 | acc. with IEC TR 61547-1:2020

Flicker indicator: PstLM <0,3 | acc. with IEC TR 61547-1:2020

TYPES COMPARISON

VERSION WITH TEMPERED GLASS DIFFUSER (GL)

Type of Fitting	Luminous Flux* (lm)	Power Consumption (W)	Efficiency (lm/W)	Ambient Temperature (°C)	Temp. Class / Max. Ambient Temperature
EXL450LED-EX2-1	16000	103	155	-40°C ÷ +60 (35E) / +65 (24E)	T6/T80°C
EXL450LED-EX2-2	22000	153	144	-40°C ÷ +55 (35E) / +60 (24E)	T5/T80°C
EXL450LED-EX3-1	24000	155	155	-40°C ÷ +60 (35E) / +65 (24E)	T5/T80°C
EXL450LED-EX3-2	34000	238	143	-40°C ÷ +45 (35E) / +50 (24E)	T4/T105°C
EXL450LED-EX4-1	31500	207	152	-40°C ÷ +50 (35E) / +55 (24E)	T5/T80°C

VERSION WITH POLYCARBONATE DIFFUSER (PC)

Type of Fitting	Luminous Flux* (lm)	Power Consumption (W)	Efficiency (lm/W)	Ambient Temperature (°C)	Temp. Class / Max. Ambient Temperature
EXL450LED-EX2-1	16000	103	155	-40°C ÷ +45	T6/T80°C
EXL450LED-EX2-2	22000	153	144	-40°C ÷ +40	T5/T80°C
EXL450LED-EX3-1	24000	155	155	-40°C ÷ +45	T5/T80°C
EXL450LED-EX3-2	34000	238	143	-40°C ÷ +40	T4/T105°C
EXL450LED-EX4-1	31500	207	152	-40°C ÷ +45	T5/T80°C

***Luminous flux is indicated for LED modules CRI 70.**



FOLLOW US ON SOCIAL MEDIA

EXL210LED

Zone 21, 2, 22



FUEL HANDLING STATIONS



CHEMICAL WAREHOUSES



FUEL TANKS



CHEMICAL



REFINERIES

**STANDARD
AND ZB:**



II 2G Ex eb mb op is IIC T5 Gb
II 2D Ex tb op is IIIC T55°C Db or T70°C Db

A3, ZBC, ZBD:



II 3G Ex ec IIC T5 Gc
II 2D Ex tb IIIC T60°C Db

**ZBT, ZBS, ZBR,
ZBH, ZBM:**



II 3G Ex ec IIC T5 Gc
II 3D Ex tC IIIC T60°C Dc

MECHANICAL FEATURES

Housing: Glass Fibre Reinforced Polyester (GRP)

Diffuser: UV Stabilised Polycarbonate

Ingress protection: IP66, IP67

Protection class: I

Mounting: on the surface with bracket

ELECTRICAL FEATURES

Connection terminals: 2,5mm²

Input voltage: 230V, 0/50-60 Hz

Light source: Intrinsically safe LED modules

Power factor: >0,97

Cable inlets: Ø20

Overvoltage protection: 2kV

WORK PARAMETERS

Ambient Temperatures: -40°C to +60°C

Lifetime: >70.000h L80 B10

PHOTOMETRICAL PARAMETERS

CRI: >80

Colour temperature: 4000K

EXL210LED

TYPES COMPARISON

Type of Fitting	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Ambient Temperature (°C)
EXL210LED-0600-E2	2750	16,2	170	-40 ÷ +45
EXL210LED-0600-E4	5486	31,5	174	-40 ÷ +45
EXL210LED-1200-E4	6450	38	170	-40 ÷ +45
EXL210LED-1200-E8	10925	62,2	176	-40 ÷ +45
EXL210LED-1500-E6	8207	46,9	175	-40 ÷ +45

MEAN EMERGENCY MODE LUMINOUS FLUX

Type of Fitting	Version A3 (lm)	Version ZB (lm)
EXL210LED-0600-E1	836	1375
EXL210LED-0600-E4	812	2735
EXL210LED-1200-E4	796	3225
EXL210LED-1200-E8	808	5470
EXL210LED-1500-E6	780	4103

OPTIONAL PICTOGRAMS



Self-adhesive pictograms can be added to the order optionally.

P11	P21	P23	P31	P41
P12	P22	P24	P32	P42



FOLLOW US ON SOCIAL MEDIA

EXL400LED

Zone 21, 2, 22



FUEL TANKS



CHEMICAL
WAREHOUSES



PASSAGEWAYS



CHEMICAL



REFINERIES

**STANDARD
VERSION:**



II 3G Ex ec IIC T6/T5 Gc
II 2D Ex tb IIIC T75°C/T100°C Db

HIGH TEMPS:



II 3G Ex ec IIC T6/T5 Gc
II 3D Ex tc IIIC T75°C/T100°C Dc

MECHANICAL FEATURES

Housing: Anodized aluminium

Diffuser: Tempered glass, polycarbonate, PMMA

Ingress protection: IP66/IP67

Protection class: I

Accessibility: Revision cover

ELECTRICAL FEATURES

Connection terminals: 2,5mm²

Input voltage: 220-240V 0,50-60 Hz

Light source: Certified LED modules

Power factor: >0,97

Cable inlets: Ø20 or Ø25

Overvoltage protection: 2kV

WORK PARAMETERS

Ambient Temperatures: -40°C to +60°C

Lifetime: >70.000h L80 B10

PHOTOMETRICAL PARAMETERS

CRI: >80

Colour temperature: 4000K, 6500K-option

EXL400LED

TYPES COMPARISON

NB OPTICS

Type of Fixture	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Ambient Temp. Class
EXL400LED-0300-E1-2	1395	10,5	133	+45°C/T6 or +60°C/T5*
EXL400LED-0300-E2-1	2351	16,8	141	+45°C/T6 or +60°C/T5*
EXL400LED-0600-E2-2	2810	19,8	142	+45°C/T6 or +60°C/T5*
EXL400LED-0600-E2-3	3236	24	135	+45°C/T6 or +60°C/T5*
EXL400LED-0600-E4-1	4735	33,7	141	+45°C/T6 or +60°C/T5*
EXL400LED-0600-E4-2	5619	38,6	141	+45°C/T6 or +60°C/T5*
EXL400LED-1200-E4-2	5340	38,6	138	+45°C/T6 or +60°C/T5*
EXL400LED-1200-E4-3	6150	47	131	+45°C/T6 or +60°C/T5*
EXL400LED-1200-E8-1	9000	64,8	139	+45°C/T6 or +60°C/T5*
EXL400LED-1200-E8-2	10680	80	134	+45°C/T6 or +60°C/T5*
EXL400LED-1200-E8-3	12300	93,5	132	+45°C/T6 or +60°C/T5*
EXL400LED-1500-E5-2	6675	79,7	134	+45°C/T6 or +60°C/T5*
EXL400LED-1500-E5-3	7688	59	130	+45°C/T6 or +60°C/T5*
EXL400LED-1500-E10-1	1120	80,0	141	+45°C/T6 or +60°C/T5*

WB OPTICS

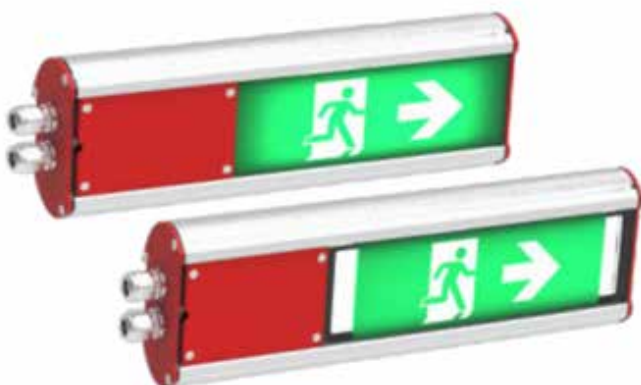
Type of Fixture	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Ambient Temp. Class
EXL400LED-0300-E1-2	1359	10,5	129	+45°C/T6 or +60°C/T5*
EXL400LED-0300-E2-1	2291	16,8	136	+45°C/T6 or +60°C/T5*
EXL400LED-0600-E2-2	2738	19,8	138	+45°C/T6 or +60°C/T5*
EXL400LED-0600-E2-3	3154	24	131	+45°C/T6 or +60°C/T5*
EXL400LED-0600-E4-1	4615	33,7	137	+45°C/T6 or +60°C/T5*
EXL400LED-0600-E4-2	5477	38,6	135	+45°C/T6 or +60°C/T5*
EXL400LED-1200-E4-2	5198	38,6	135	+45°C/T6 or +60°C/T5*
EXL400LED-1200-E4-3	5986	47	127	+45°C/T6 or +60°C/T5*
EXL400LED-1200-E8-1	8760	64,8	135	+45°C/T6 or +60°C/T5*
EXL400LED-1200-E8-2	10395	80	130	+45°C/T6 or +60°C/T5*
EXL400LED-1200-E8-3	11972	93,5	128	+45°C/T6 or +60°C/T5*
EXL400LED-1500-E5-2	6497	48	135	+45°C/T6 or +60°C/T5*
EXL400LED-1500-E5-3	7483	59	127	+45°C/T6 or +60°C/T5*
EXL400LED-1500-E10-1	10950	80	137	+45°C/T6 or +60°C/T5*

*Execution for high operating temperatures



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EX-IT-400LED



FUEL TANKS



CHEMICAL
WAREHOUSES



PASSAGEWAYS



CHEMICAL



REFINERIES

STANDARD VERSION:



II 3G Ex ec IIC T6/T5 Gc
II 2D Ex tb IIIC T75°C/T100°C Db

HIGH TEMPS:



II 3G Ex ec IIC T6/T5 Gc
II 3D Ex tc IIIC T75°C/T100°C Dc

MECHANICAL FEATURES

Housing: Anodized aluminium

Diffuser: Tempered glass, polycarbonate, PMMA

Ingress protection: IP66/IP67

Protection class: I

Accessibility: Revision cover

ELECTRICAL FEATURES

Connection terminals: 2,5mm²

Input voltage: 220-240V 0,50-60 Hz

Light source: Certified LED modules

Power factor: >0,97

Cable inlets: Ø20 or Ø25

Overvoltage protection: 2kV

WORK PARAMETERS

Ambient Temperatures: -40°C to +60°C

Lifetime: >70.000h L80 B10

PHOTOMETRICAL PARAMETERS

CRI: >80

Colour temperature: 4000K, 6500K-option

EX-IT-400LED

TYPES COMPARISON

NB OPTICS

Type of Fixture	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Ambient Temp. Class
EX-IT-400LED-0300-E1-2	1395	10,5	133	+45°C/T6 or +60°C/T5*
EX-IT-400LED-0300-E2-1	2351	16,8	140	+45°C/T6 or +60°C/T5*

WB OPTICS

Type of Fixture	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Ambient Temp. Class
EX-IT-400LED-0300-E1-2	1359	10,5	129	+45°C/T6 or +60°C/T5*
EX-IT-400LED-0300-E2-1	2291	16,8	136	+45°C/T6 or +60°C/T5*

WB OPTICS - 24VDC VERSION

Type of Fixture	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Ambient Temp. Class
EX-IT-400LED-0300-I1	1591	13,2	121	+45°C/T6 or +50°C/T5*
EX-IT-400LED-0300-I2	3182	26,4	121	+45°C/T6 or +50°C/T5*

***Execution for high operating temperatures**

OPTIONAL 3-HOUR EMERGENCY POWER MODULE

(The fixture can work in the temperature range from -20°C up to +45°C. Charging of the battery has to be processed in the temperature range from 0°C up to +45°C).

Type	Luminous Flux (lm)	Ambient Temperature (°C)
EX-IT-400LED-0300-...-A3	550	45
EX-IT-400LED-0600-...-A3	585	45

OPTIONAL VERSION COMPATIBLE WITH CENTRAL BATTERY

(Standard emergency luminous flux for version compatible with central battery (ZB) is 50% of referal luminous flux from types comparison tables).

Type	Luminous Flux (lm)	Ambient Temperature (°C)
EX-IT-400LED-0300-...-A3	550	45
EX-IT-400LED-0600-...-A3	585	45



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EXL390LED



OFFSHORE



CHEMICAL
WAREHOUSES



PASSAGEWAYS



CHEMICAL



REFINERIES

STANDARD VERSION:



II 3G Ex ec op is IIC T4 Gc
II 2D Ex tb op is IIIC T70°C or T80°C Db

A3 VERSION:



II 3G Ex ec IIC T4 Gc
II 2D Ex tb IIIC T70°C Dc

CERTIFICATES:

OBAC 22 ATEX 0404X (A3 version)
KDB 15ATEX0049X
IECEx KDB 20.0003X

MECHANICAL FEATURES

Housing: Powder-coated stainless steel

Diffuser: PC type opal or tempered glass

Ingress protection: IP65

Protection class: I

Mounting: Directly to a ceiling or a wall with the use of screws and stainless brackets, suspension with the use of stainless hooks, or attachment with the use of side hangers to the wall (not included in accessories)

Accessibility: Depending on type of ceiling

ELECTRICAL FEATURES

Connection terminals: 2,5mm²

Input voltage: 230V, 50-60 Hz; 230V, 0/50-60 Hz

Light source: Intrinsically safe LED modules

Power factor: >0,97

Cable inlets: Ø20

Overvoltage protection: 2kV

WORK PARAMETERS

Ambient Temperatures: -40°C to +50°C

Lifetime: >70.000h L80 B10

PHOTOMETRICAL PARAMETERS

CRI: >80

Colour temperature: 4000K

EXL390LED

TYPES COMPARISON

Type of Fitting	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Ambient Temperature (°C)
EXL390LED-0600-E4-1	4636	35	132	-40 ÷ 50
EXL390LED-0600-E4-3	6265	47	133	-40 ÷ 50
EXL390LED-1200-E3-1	3160	27,1	117	-40 ÷ 50
EXL390LED-1200E3-3	4270	36,6	117	-40 ÷ 50
EXL390LED-1200-E6-1	6445	52	124	-40 ÷ 50
EXL390LED-1200-E6-3	8710	70,5	124	-40 ÷ 50

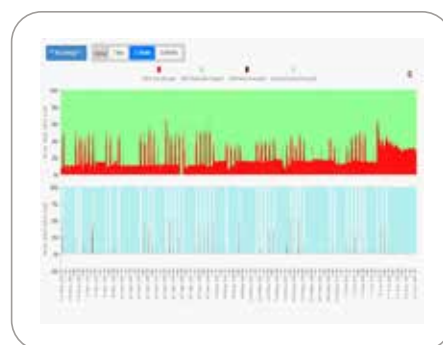
OPTIONAL VERSIONS

Type of Fitting	Version A3 (lm)	Version ZB (lm)
EXL390LED-0600-E4-1	584	2318
EXL390LED-0600-E4-3	528	3133
EXL390LED-1200-E3-1	398	1580
EXL390LED-1200-E3-3	360	2135
EXL390LED-1200-E6-1	812	3223
EXL390LED-1200-E6-3	734	4355

INTELLIGENT-ATEX READY

SEE PAGE 4 FOR MORE DETAILS

- The EXL390LED is a versatile lighting solution that can be optionally ATEX-ready for hazardous environments.
- Easy installation with a basic LNE connection; no complex setups or advanced wiring expertise needed.
- Intuitive user interface tailored for contractors and end users, utilizing 868MHz controllers and sensors.
- Simple tablet commissioning and cloud monitoring for effortless setup and remote management.
- ATEX certification ensures safety, reliability, explosion protection, reduced risk of ignition, and compliance with stringent safety standards.



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EXL380LED



OFFSHORE



CHEMICAL
WAREHOUSES



DISTILLERIES



CHEMICAL



REFINERIES

STANDARD VERSION:



II 3G Ex ec op is IIC T4 Gc
II 2D Ex tb op is IIIC T80°C Db

CERTIFICATES:

KDB 15ATEX0049X
IECEX KDB 20.0003X

MECHANICAL FEATURES

Housing: Powder-coated or brushed stainless steel

Diffuser: Tempered glass

Ingress protection: IP65

Protection class: I

Mounting: Using accessories

Accessibility: Bracket

ELECTRICAL FEATURES

Connection terminals: 2,5mm²

Input voltage: 230V, 0/50-60 Hz

Light source: Intrinsically safe LED modules

Power factor: >0,97

Cable inlets: Ø20

Overvoltage protection: 2kV

WORK PARAMETERS

Ambient Temperatures: -40°C to +40°C

Lifetime: >70.000h L80 B10

PHOTOMETRICAL PARAMETERS

CRI: >80

Colour temperature: 4000K

EXL380LED

TYPES COMPARISON

REGULAR VERSIONS

Type of Fitting	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Ambient Temperature (°C)
EXL380LED-045-E4	6570	53	125	-40 ÷ 40
EXL380LED-090-E8	13244	98	138	-40 ÷ 40
EXL380LED-130-E12	19215	146	133	-40 ÷ 40

OPTIONAL VERSIONS

Type of Fitting	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Ambient Temperature (°C)
EXL380LED-045-E4	7423	53	140	-40 ÷ 40
EXL380LED-090-E8	13299	98	138	-40 ÷ 40
EXL380LED-130-E12	20748	146	143	-40 ÷ 40



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PRIMA LED EX



PASSAGEWAYS



CHEMICAL
WAREHOUSES



CHEMICAL



REFINERIES



II 3G Ex nR IIC T6 Gc
II 3D Ex te IIIC T70°C Dc

MECHANICAL FEATURES

Housing: Grey polycarbonate

Diffuser: Translucent polycarbonate [PC], UV stable, impact-resistant

Light fitting protection: IP66

Mounting: Directly to a ceiling or a wall with the use of screws and stainless brackets, suspension with the use of stainless hooks, or attachment with the use of side hangers to the wall (not included in accessories)

Reflector: Steel sheet

WORK PARAMETERS

Ambient Temperatures: -25°C to +60°C
(check types comparison)

Lifetime: 50.000h L90 B10

PHOTOMETRICAL PARAMETERS

Colour temperature: 4000K

CRI: >80

VERSION WITH EMERGENCY BACK-UP SOURCE M1h, M3h

Part Code	Type	Min. & Max. Ambient Temperature (°C)	Luminous flux of LED modules (lm)	Luminous flux of light fitting (lm)	System input (W)	System efficiency (lm/W)	Net weight (kg)
63854	Prima LED Ex 1.2ft PCc 1600/840 Mxh	0/45	1840	1690	11	154	2,5
63883	Prima LED Ex 1.2ft PCc 2200/840 Mxh	0/45	2560	2350	16	147	2,5
14818	Prima LED Ex 1.4ft PCc 3200/840 Mxh	0/50	3620	3330	23	145	3,7
14828	Prima LED Ex 1.4ft PCc 4400/840 Mxh	0/50	5070	4660	31	150	3,7
14838	Prima LED Ex 1.5ft PCc 4000/840 Mxh	0/50	4520	4150	27	154	4,6
14848	Prima LED Ex 1.5ft PCc 5500/840 Mxh	0/50	6320	5810	38	153	4,7
X	Prima LED Ex 2.2ft PCc 3200/840 Mxh	0/40	3620	3330	22	151	2,6
X	Prima LED Ex 2.2ft PCc 4400/840 Mxh	0/35	5120	4710	31	152	2,6
14858	Prima LED Ex 2.4ft PCc 6400/840 Mxh	0/45	7300	6710	43	156	3,9
14868	Prima LED Ex 2.4ft PCc 8800/840 Mxh	0/40	10160	9340	60	156	3,9
14878	Prima LED Ex 2.5ft PCc 8000/840 Mxh	0/45	9040	8310	54	154	4,8
14888	Prima LED Ex 2.5ft PCc 11000/840 Mxh	0/40	12050	11080	71	156	4,8

PRIMA LED EX

FOR AMBIENT TEMPS $T_a = 60^{\circ}\text{C}$

Part Code	Type	Min. & Max. Ambient Temperature ($^{\circ}\text{C}$)	Luminous flux of LED modules (lm)	Luminous flux of light fitting (lm)	System input (W)	System efficiency (lm/W)	Net weight (kg)
10646	Prima LED Ex 1.2ft PCc 1600/840	-25/60	1840	1690	11	154	2,0
10647	Prima LED Ex 1.2ft PCc 2200/840	-25/55	2560	2350	16	147	2,0
14813	Prima LED Ex 1.4ft PCc 3200/840	-25/60	3620	3330	23	145	3,2
14823	Prima LED Ex 1.4ft PCc 4400/840	-25/55	5070	4660	31	150	3,3
63881	Prima LED Ex 1.4ft PCc 6400/840	-25/55	7300	6710	44	153	3,3
14833	Prima LED Ex 1.5ft PCc 4000/840	-25/60	4520	4150	27	154	4,1
14843	Prima LED Ex 1.5ft PCc 5500/840	-25/55	6320	5810	38	153	4,2
63889	Prima LED Ex 1.5ft PCc 8000/840	-25/55	9030	8300	53	157	4,2
10649	Prima LED Ex 2.2ft PCc 3200/840	-25/60	3620	3330	22	151	2,1
10652	Prima LED Ex 2.2ft PCc 4400/840	-25/55	5120	4710	31	152	2,1
14853	Prima LED Ex 2.4ft PCc 6400/840	-25/60	7300	6710	43	156	3,4
14863	Prima LED Ex 2.4ft PCc 8800/840	-25/55	10160	9340	60	156	3,5
63893	Prima LED Ex 2.4ft PCc 12800/840	-25/40	14490	13330	85	157	3,7
14873	Prima LED Ex 2.5ft PCc 8000/840	-25/60	9040	8310	54	154	4,3
14883	Prima LED Ex 2.5ft PCc 11000/840	-25/55	12050	11080	71	156	4,4
63862	Prima LED Ex 2.5ft PCc 16000/840	-25/40	17960	16520	106	156	4,6
63867	Prima LED Ex 2.5ft PCc 20000/840	-25/40	19200	17660	118	150	4,6

Prima LED Ex PCc DALI

Type	3F	3FM3h
Prima LED Ex 1.2ft PCc 1600/840 DALI	X	X
Prima LED Ex 1.2ft PCc 2200/840 DALI	X	X
Prima LED Ex 1.4ft PCc 3200/840 DALI	14913	14918
Prima LED Ex 1.4ft PCc 6400/840 DALI	63900	X
Prima LED Ex 1.5ft PCc 4000/840 DALI	14933	14938
Prima LED Ex 1.5ft PCc 8000/840 DALI	63871	X
Prima LED Ex 2.2ft PCc 3200/840 DALI	X	X

Type	3F	3FM3h
Prima LED Ex 2.2ft PCc 4400/840 DALI	X	X
Prima LED Ex 2.4ft PCc 6400/840 DALI	14953	14958
Prima LED Ex 2.4ft PCc 12800/840 DALI	63876	X
Prima LED Ex 2.5ft PCc 8000/840 DALI	14973	14978
Prima LED Ex 2.5ft PCc 11000/840 DALI	14983	14988
Prima LED Ex 2.5ft PCc 16000/840 DALI	63857	X
Prima LED Ex 2.5ft PCc 20000/840 DALI	63885	X



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PERUN SLIM EX



PASSAGEWAYS



CHEMICAL
WAREHOUSES



CHEMICAL



REFINERIES



II 3G Ex nR IIC T6 Gc
II 3D Ex te IIIC T70°C Dc

MECHANICAL FEATURES

Housing: Stainless sheet, chemically resistant

Diffuser: Satinated tempered safety glass

Light fitting protection: IP65

Mounting: Directly to ceiling or wall with brackets

Reflector: Steel sheet

WORK PARAMETERS

Ambient Temperatures: -25°C to +45°C
(check types comparison)

Lifetime: 50.000h L90 B10

PHOTOMETRICAL PARAMETERS

Colour temperature: 4000K **CRI:** >80

TYPE COMPARISON

Part Code	Type	Min. & Max. Ambient Temperature (°C)	Luminous flux of LED modules (lm)	Luminous flux of light fitting (lm)	System input (W)	System efficiency (lm/W)	UGR Longitudinal	Net Weight (kg)
X	Perun SLIM Ex 1.2ft 1600/840	-25/45	1820	1460	11,4	128	20.6/21.5	2,4
X	Perun SLIM Ex 1.2ft 2200/840	-25/45	2500	200	15,4	130	21.7/22.6	2,4
103519	Perun SLIM Ex 1.4ft 3200/840	-25/45	3620	2900	22,2	131	20.8/21.6	4,3
103520	Perun SLIM Ex 1.4ft 4400/840	-25/45	5020	4020	30,3	133	21.9/22.7	4,3
X	Perun SLIM Ex 1.4ft 6400/840	-25/40	7140	5710	42,1	136	23.1/24.0	4,3
X	Perun SLIM Ex 1.4ft 8800/840	-25/40	10140	8110	57,9	140	24.3/25.2	4,3
103523	Perun SLIM Ex 1.5ft 4000/840	-25/45	4490	3590	27,1	132	20.8/21.6	5,3
103524	Perun SLIM Ex 1.5ft 5500/840	-25/45	6230	4980	37,2	134	21.9/22.7	5,3
X	Perun SLIM Ex 1.5ft 8000/840	-25/40	9080	7260	51,6	141	23.2/24.0	5,3
X	Perun SLIM Ex 1.5ft 11000/840	-25/40	12310	9850	71,1	139	24.3/25.1	5,3

PERUN SLIM EX

Version With Emergency Back-Up Source

Part Code	Type
X	Perun SLIM Ex 1.2ft PCc 1600/840
X	Perun SLIM Ex 1.2ft PCc 2200/840
103519	Perun SLIM Ex 1.4ft PCc 3200/840
103520	Perun SLIM Ex 1.4ft PCc 4400/840
X	Perun SLIM Ex 1.4ft PCc 6400/840
X	Perun SLIM Ex 1.4ft PCc 8800/840
103523	Perun SLIM Ex 1.5ft PCc 4000/840
103524	Perun SLIM Ex 1.5ft PCc 5500/840
X	Perun SLIM Ex 1.5ft PCc 8000/840
X	Perun SLIM Ex 1.5ft PCc 11000/840

Perun SLIM Ex DALI

Part Code	Type
103501	Perun SLIM Ex 1.2ft PCc 1600/840
103502	Perun SLIM Ex 1.2ft PCc 2200/840
103503	Perun SLIM Ex 1.4ft PCc 3200/840
103504	Perun SLIM Ex 1.4ft PCc 4400/840
103505	Perun SLIM Ex 1.4ft PCc 6400/840
103506	Perun SLIM Ex 1.4ft PCc 8800/840
103507	Perun SLIM Ex 1.5ft PCc 4000/840
103508	Perun SLIM Ex 1.5ft PCc 5500/840
103509	Perun SLIM Ex 1.5ft PCc 8000/840
103510	Perun SLIM Ex 1.5ft PCc 11000/840



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CASE STUDY: PFIZER

The implementation of the Hazlite Intelligent Lighting System followed a structured approach.

- 1 Assessment and Planning:** Detailed site assessments were conducted to identify lighting requirements, regulatory compliance, and potential energy-saving opportunities.
- 2 Customization and Integration:** The lighting system was customized to meet the specific needs of the pharmaceutical company's facilities, integrating seamlessly with existing infrastructure and emergency response protocols.
- 3 Installation and Commissioning:** Experienced technicians efficiently installed and commissioned lighting solutions, ensuring minimal disruption and validating system performance through rigorous testing.
- 4 Training and Support:** Facility staff underwent comprehensive training on operating and maintaining the intelligent lighting system. Ongoing technical support and maintenance services ensured optimal system performance and reliability.





Results and Benefits

The implementation of the intelligent lighting system delivered tangible benefits to the pharmaceutical company:



Enhanced Safety: ATEX-certified luminaires improved safety in hazardous environments, reducing the risk of accidents and ensuring compliance with regulatory standards.



Energy Savings: Advanced lighting control algorithms significantly reduced energy consumption, leading to substantial cost savings.



Improved Emergency Response: Automated emergency reporting streamlined response times and enhanced situational awareness during critical incidents.



Cost-effective Installation: The integrated design of luminaires minimized installation costs, resulting in overall project savings.

By leveraging the **Intelligent Lighting System**, the blue-chip pharmaceutical company in Singapore successfully addressed key challenges related to safety, energy efficiency, and operational effectiveness. The implementation of **ATEX-certified** luminaires, automated emergency reporting, and cost-effective installation methodologies exemplifies the company's commitment to innovation and excellence in **workplace safety and sustainability**.



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Extreme Ambient



FARM LED



AGRIBUSINESS



FARMS



FOOD & BEVERAGE



HIGH TEMP.

MECHANICAL FEATURES

Housing: Polycarbonate, PMMA

Diffuser: Polycarbonate tubular

Shock resistance: IK10

Ingress protection: IP66/69K

Mounting/Accessories: Steel cable suspension, stainless steel clamps/end caps

ELECTRICAL FEATURES

Connection terminals: 2,5mm²

Input voltage: 230V, 0/50-60 Hz

Light source: Intrinsically safe LED modules

Power factor: >0,97

Cable inlets: Ø20

Overvoltage protection: 2kV

WORK PARAMETERS

Ambient Temperatures: -40°C to +80°C

Lifetime: 50.000h L70 B50,
72.000h L70 B50 - optional

PHOTOMETRICAL PARAMETERS

CRI: >80

UGR: <19

Colour temperature: 3000k, 4000K - standard
5000K - optional



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TYPE COMPARISON

Dimensions (mm)	Power (W)	Gross Output (Lm)	Net Output (Lm)	T ^a Colour (°K)	L (mm)	D (mm)	D + Clamp (mm)
600	13	1.490	1.155	3.000	763	100	120
600	13	1.550	1.201	4.000	763	100	120
600	16	2.560	1.984	3.000	763	100	120
600	16	2.560	1.984	3.000	763	100	120
1200	24	2.980	2.310	3.000	1.375	100	120
1200	24	3.200	2.480	4.000	1.375	100	120
1200	32	5.120	3.969	3.000	1.375	100	120
1200	32	5.340	4.139	4.000	1.375	100	120
1500	29	3.720	2.883	3.000	1.660	100	120
1500	29	4.000	3.100	4.000	1.660	100	120
1500	40	6.310	4.891	3.000	1.660	100	120
1500	40	6.700	5.193	4.000	1.660	100	120

HIGH TEMPERATURE VERSION

Dimensions (mm)	Power (W)	Gross Output (Lm)	Net Output (Lm)	T ^a Colour (°K)	L (mm)	D (mm)	D + Clamp (mm)
560	17	2.224	1650	5.000	763	100	120
1120	34	4448	3300	5.000	1.375	100	120
1400	43	5560	4125	5.000	1.660	100	120

FUTURA MAX

For extreme temperatures



LOW TEMP.



HIGH TEMP.

CERTIFICATE: HAACP

MECHANICAL FEATURES

Housing: Grey polycarbonate with Al coolers

Diffuser: Translucent polycarbonate

Ingress protection: IP66

Impact strength: IK10

Mounting: Stainless hooks and brackets

ELECTRICAL FEATURES

Electric equipment: LED modules, current driver

Cable glands: Screwed PG13.5

Wiring: Through wiring of up to 10 wires at body

Certification: HACCP

WORK PARAMETERS

Ambient Temperatures: -40°C to +70°C

Lifetime: 50.000h L80 B10

PHOTOMETRICAL PARAMETERS

CRI: >80

Colour temperature: 4000K, 3000K (optional), 5000K (optional)



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FUTURA MAX

TYPES COMPARISON

Part Code	Type	Max. Ambient Temp. (°C)	Luminous flux of LED modules (lm)	Luminous flux of light fitting (lm)	System input (W)	System efficiency (lm/W)	UGR Longitudinal	Net Weight (kg)
79823	Futura 1.5ft MAX PCc Al 4000/840	70	3850	3620	23,3	155	21.5/19.9	3,05
79833	Futura 1.5ft MAX PCc Al 5500/840	65	5340	5020	31,9	157	22.7/21.0	3,05
79843	Futura 2.4ft MAX PCc Al 6400/840	65	6240	5870	36,3	162	24.0/22.2	2,65
79803	Futura 2.4ft MAX PCc Al 8800/840	60	8690	8170	49,7	164	25.1/23.3	2,65
79853	Futura 2.5ft MAX PCc Al 8000/840	65	7770	7300	44,4	164	24.0/22.3	3,15
79813	Futura 2.5ft MAX PCc Al 110000/840	60	12310	11570	71,1	163	25.6/23.9	3,15

EMERGENCY BACK-UP M3H

Part Code	Type
79826	Futura 1.5ft MAX PCc Al 4000/840
79836	Futura 1.5ft MAX PCc Al 5500/840
79846	Futura 2.4ft MAX PCc Al 6400/840
79806	Futura 2.4ft MAX PCc Al 8800/840
79856	Futura 2.5ft MAX PCc Al 8000/840
79816	Futura 2.5ft MAX PCc Al 110000/840

MOUNTING



FROST PLUS

For cold stores & freezing facilities with temperatures down to -25°C



LOW TEMP.



WAREHOUSES



INDUSTRIAL
BUILDINGS

MECHANICAL FEATURES

Housing: Dark grey ABS (RAL 7001), UV stable

Diffuser: Translucent acrylic

Ingress protection: IP66

Impact strength: IK10

Mounting: Stainless hooks and brackets

ELECTRICAL FEATURES

Electric equipment: LED modules, current driver

Cable glands: Screwed PG13.5

Wiring: Through wiring of up to 10 wires at body

Certification: CE

WORK PARAMETERS

Ambient Temperatures: -40°C to +70°C

Lifetime: 50.000h L90 B10

PHOTOMETRICAL PARAMETERS

CRI: >80

Colour temperature: 4000K; or 3000K, 5000K, 6500K (optional)



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FROST PLUS

TYPES COMPARISON

Part Code	Type	Max. Ambient Temp. (°C)	Luminous flux of LED modules (lm)	Luminous flux of light fitting (lm)	System input (W)	System efficiency (lm/W)	UGR Longitudinal	Net Weight (kg)
103100	Frost 2.4ft 5200/840	-25	5230	4600	30,3	152	23.4/22.1	2,25
103101	Frost 2.4ft 6400/840	-25	6240	5490	36,3	151	24.0/22.7	2,25
103102	Frost 2.4ft 8800/840	-25	8690	7650	49,7	154	25.2/23.9	2,25
103103	Frost 2.5ft 6500/840	-25	6500	5720	37,1	154	23.4/22.1	2,25
103104	Frost 2.5ft 8000/840	-25	7770	6840	44,4	154	24.0/22.7	2,25
103105	Frost 2.5ft 11000/840	-25	12310	10830	71,1	154	25.6/24.3	2,25

EMERGENCY BACK-UP M3H

Part Code	Type
103112	Frost 2.4ft 5200/840
103113	Frost 2.4ft 6400/840
103114	Frost 2.4ft 8800/840
103115	Frost 2.5ft 6500/840
103116	Frost 2.5ft 8000/840
103117	Frost 2.5ft 11000/840

MOUNTING



ALUMAX MAX LED



*For extreme temperatures
-40°C to +75°C*



LOW TEMP.



HIGH TEMP.

MECHANICAL FEATURES

Housing: Grey aluminium profile, surface treated with powder-coated colour

Diffuser: Satinated tempered safety glass

Ingress protection: IP66

Impact strength: IK10

Mounting: Suitable for suspended, ceiling, wall, and surface mounting via stainless steel suspension brackets

ELECTRICAL FEATURES

Electric equipment: LED modules, current driver

Cable glands: Brass M18 x 1,5

Certification: CE

WORK PARAMETERS

Ambient Temperatures: -40°C to +70°C

Lifetime: 50.000h L80 B10

PHOTOMETRICAL PARAMETERS

CRI: >80

Colour temperature: 4000K; on request 3000K, 5000K

ALUMAX MAX LED

TYPES COMPARISON

Part Code	Type	Max. Ambient Temp. (°C)	Luminous flux of LED modules (lm)	Luminous flux of light fitting (lm)	System input (W)	System efficiency (lm/W)	UGR Longitudinal	Net Weight (kg)
79733	Alumax LED 1.5ft MAX 4000/840	75	3850	2930	23,3	126	20.6/22.2	5,0
79703	Alumax LED 1.5ft MAX 5500/840	70	5340	4060	31,9	127	21.8/23.3	5,0
79743	Alumax LED 2.4ft MAX 6400/840	70	6240	4680	36,3	129	22.6/24.6	4,3
79713	Alumax LED 2.4ft MAX 8800/840	65	8690	6520	49,7	131	23.8/25.8	4,3
79753	Alumax LED 2.5ft MAX 8000/840	70	7770	5830	44,4	131	22.6/24.6	5,3
79723	Alumax LED 2.5ft MAX 110000/840	65	12310	9230	71,1	130	24.2/26.2	5,3

ALUMAX LED MAX DALI

Part Code	Type
79736	Alumax LED 1.5ft MAX 4000/840
79706	Alumax LED 1.5ft MAX 5500/840
79746	Alumax LED 2.4ft MAX 6400/840
79716	Alumax LED 2.4ft MAX 8800/840
79756	Alumax LED 2.5ft MAX 8000/840
79726	Alumax LED 2.5ft MAX 110000/840

MOUNTING



INS400LED



VERSION WITH PICTOGRAM



INDUSTRIAL BUILDINGS



WAREHOUSES



PRODUCTION LINES



PASSAGEWAYS

WORK PARAMETERS

Ambient Temperatures: -40°C to +70°C

Lifetime: >70.000h L80 B10

PHOTOMETRICAL PARAMETERS

CRI: >80

Colour temperature: 4000K, 6500K - optionally

MECHANICAL FEATURES

Housing: Anodized aluminium

Diffuser: Tempered glass, polycarbonate, PMMA

Ingress protection: IP66/IP67

Protection class: I

Mounting: Different mountings

Accessories: Mounting accessories

ELECTRICAL FEATURES

Connection terminals: 2,5mm²

Input voltage: 230V, 0,50-60 Hz

Light source: Certified LED modules

Power factor: >0,95

Cable inlets: Ø20, Ø25

Overvoltage protection: L-N: 4kV
L-PE: 4kV

MEAN EMERGENCY LUMINOUS FLUX

Type of Fitting	Version A3S (lm)	Version ZB (lm)
INS400LED-0300-A1-1	551	570
INS400LED-0300-A1-2	541	840
INS400LED-0300-A1-3	522	990
INS400LED-0300-A1-4	518	1160
INS400LED-0600-B2-1	716	2260
INS400LED-0600-B2-2	720	3340
INS400LED-0600-B2-3	715	3970
INS400LED-0600-B2-4	721	4640
INS400LED-1200-B4-1	767	4510
INS400LED-1200-B4-2	787	6680
INS400LED-1200-B4-3	795	7950
INS400LED-1200-B4-4	814	9280
INS400LED-1500-B4A2-1	827	5640
INS400LED-1500-B4A2-2	778	8340
INS400LED-1500-B4A2-3	722	9925
INS400LED-1500-B4A2-4	677	11585



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INS400LED

TYPES COMPARISON

Type of Fixture	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Ambient Temperature (°C)
INS400LED-0300-A1-1	570	5,5	104	-25 to +60
INS400LED-0300-A1-2	840	7,4	114	-25 to +60
INS400LED-0300-A1-3	990	9,2	108	-25 to +60
INS400LED-0300-A1-4	1160	11,0	105	-25 to +60
INS400LED-0600-B2-1	2260	15,3	148	-25 to +60
INS400LED-0600-B2-2	3340	22,7	147	-25 to +60
INS400LED-0600-B2-3	3970	27,8	143	-25 to +60
INS400LED-0600-B2-4	4640	32,9	141	-25 to +60
INS400LED-1200-B4-1	4510	30,0	150	-25 to +60
INS400LED-1200-B4-2	6680	44,9	149	-25 to +60
INS400LED-1200-B4-3	7950	55,0	145	-25 to +60
INS400LED-1200-B4-4	9280	65,2	142	-25 to +60
INS400LED-1500-B4A2-1	5640	37,0	154	-25 to +60
INS400LED-1500-B4A2-2	8340	55,0	151	-25 to +60
INS400LED-1500-B4A2-3	9925	68,0	146	-25 to +60
INS400LED-1500-B4A2-4	11585	81,0	143	-25 to +60

NARROW BEAM (NB) VERSIONS

Type of Fixture	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Ambient Temperature (°C)
INS400LED-0300-A1-1	560	5,5	103	od -25 do +60
INS400LED-0300-A1-2	820	7,4	111	od -25 do +60
INS400LED-0300-A1-3	970	9,2	105	od -25 do +60
INS400LED-0300-A1-4	1135	11,0	103	od -25 do +60
INS400LED-0600-B2-1	2210	15,3	144	od -25 do +60
INS400LED-0600-B2-2	3270	22,7	144	od -25 do +60
INS400LED-0600-B2-3	3890	27,8	140	od -25 do +60
INS400LED-0600-B2-4	4540	32,9	138	od -25 do +60
INS400LED-1200-B4-1	4420	30,0	147	od -25 do +60
INS400LED-1200-B4-2	6530	44,9	145	od -25 do +60
INS400LED-1200-B4-3	7770	55,0	141	od -25 do +60
INS400LED-1200-B4-4	9080	65,2	140	od -25 do +60
INS400LED-1500-B4A2-1	5510	37,0	149	od -25 do +60
INS400LED-1500-B4A2-2	8150	55,0	148	od -25 do +60
INS400LED-1500-B4A2-3	9700	68,0	143	od -25 do +60
INS400LED-1500-B4A2-4	11320	81,0	140	od -25 do +60

OVEN

Tubular, rugged, water-resistant, high-temperature for extreme conditions.



HIGH TEMP.



OVEN/KILN

MECHANICAL FEATURES

Housing: 5mm thick borosilicate glass

Internal structure: Galvanised steel frame

Ingress protection: IP68

Shock resistance: IK07

Mounting: Two rapid stainless steel clamps

ELECTRICAL FEATURES

Input voltage: 220-240V, 50-60Hz | 0.06-0.7A

Cable glands: Metal

Lamps: Two G9 halogen lamps for oven up to 40W.

WORK PARAMETERS

Ambient Temperatures: -50°C to +200°C

Power: min 40W, max 80W

DIMENSIONS

Watts	L (mm)	D (mm)	D + clamp	Packaging
1x40	275	105	140	1
2x40	275	105	140	1



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CASE STUDY: POWER STATION

A power station in North Wales faced challenges with outdated fluorescent luminaires: poor illumination and no emergency lighting for power outages. The proposed integration of INS400LED luminaires with a Static Inverter System.

The Challenge

Old fluorescent lights failed to meet standards and lacked emergency lighting, posing safety risks during outages. Additionally, temperatures up to 70°C required durable fixtures without sacrificing performance or safety.

The Solution

The project assessed the situation and recommended INS400LED luminaires, designed for high-temperature environments with advanced thermal management. To address emergency needs, they proposed a Static Inverter System integrated with the luminaires, ensuring uninterrupted lighting during power failures. This solution combined energy-efficient LED technology with emergency provisions, offering a reliable lighting system.

Implementation

Implementation involved detailed planning and coordination. The experts conducted site surveys to develop a customized lighting design. After approval, skilled technicians installed the INS400LED luminaires, ensuring optimal coverage, and seamlessly integrated the Static Inverter System for emergency support.

Benefits of Integral Emergency Lighting



Improved Illumination: The INS400LED luminaires delivered superior illumination levels, enhancing visibility and safety across the site.



Enhanced Emergency Preparedness: With the integration of the Static Inverter System, the power station achieved comprehensive emergency lighting coverage, ensuring swift and safe evacuation procedures during unforeseen events.



Resilience to Extreme Conditions: The selected luminaires demonstrated exceptional resilience to the site's high ambient temperatures, maintaining performance and reliability even in challenging environments.



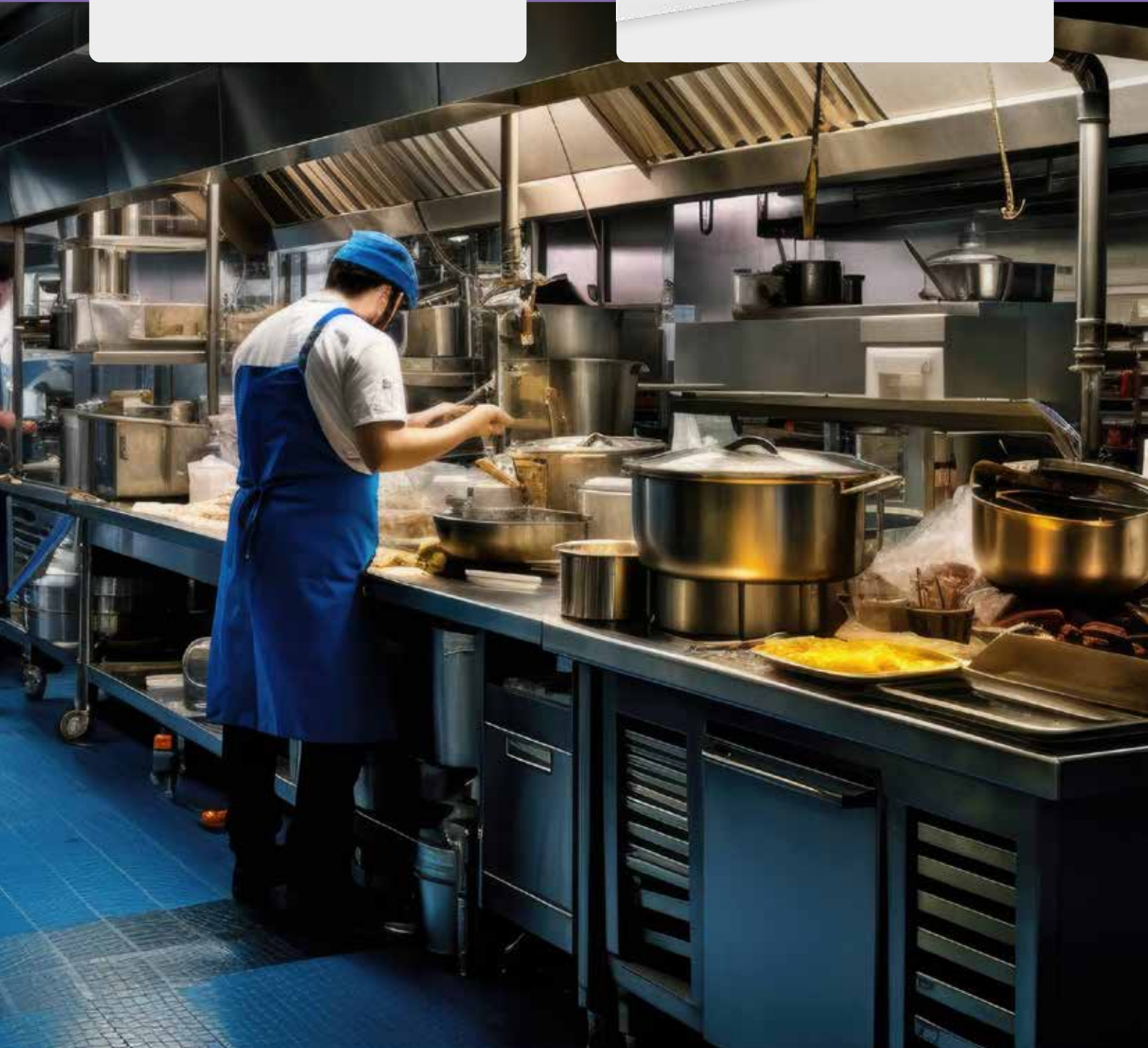
Sustainability: LED technology offered energy-efficient lighting solutions, contributing to reduced energy consumption and long-term cost savings for the power station.

Successful implementation of integral emergency lighting solutions at the power station exemplifies the company's commitment to innovation, reliability, and safety. By leveraging advanced LED technology and tailored emergency provisions, the project not only addressed the site's specific challenges but also provided a sustainable and future-proof lighting solution. The power station can now operate with confidence, knowing that its lighting infrastructure is optimized for performance, resilience, and safety, even in the most demanding conditions.



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Food & Beverage



INS242LED

Industrial light fittings



SEWERS



WASTE WATER
TREATMENT



CAR WASHES



PRESSURE CLEANED
INSTALLATIONS

MECHANICAL FEATURES

Tube: Borosilicate glass, polycarbonate, polymethyl methacrylate

End-cap: Stainless steel, stainless steel type 316, aluminium

Ingress protection: IP66/IP69K

Protection Class: I, III

Mounting: Different mountings available

ELECTRICAL FEATURES

Connection terminals: 2,5mm²

Power Supply: 230V, 0/50-60Hz | 24 VDC

Source of light: Certified LED modules

Power factor: >0,95

Cable Entry: Ø20

Overvoltage protection: 2kV

WORK PARAMETERS

Ambient Temperatures: -25°C to +45°C

Lifetime: >70.000h L80 B10

PHOTOMETRICAL PARAMETERS

CRI: >80

Colour temperature: 4000K; on request 5000K or 6500K



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INS242LED

TYPES COMPARISON

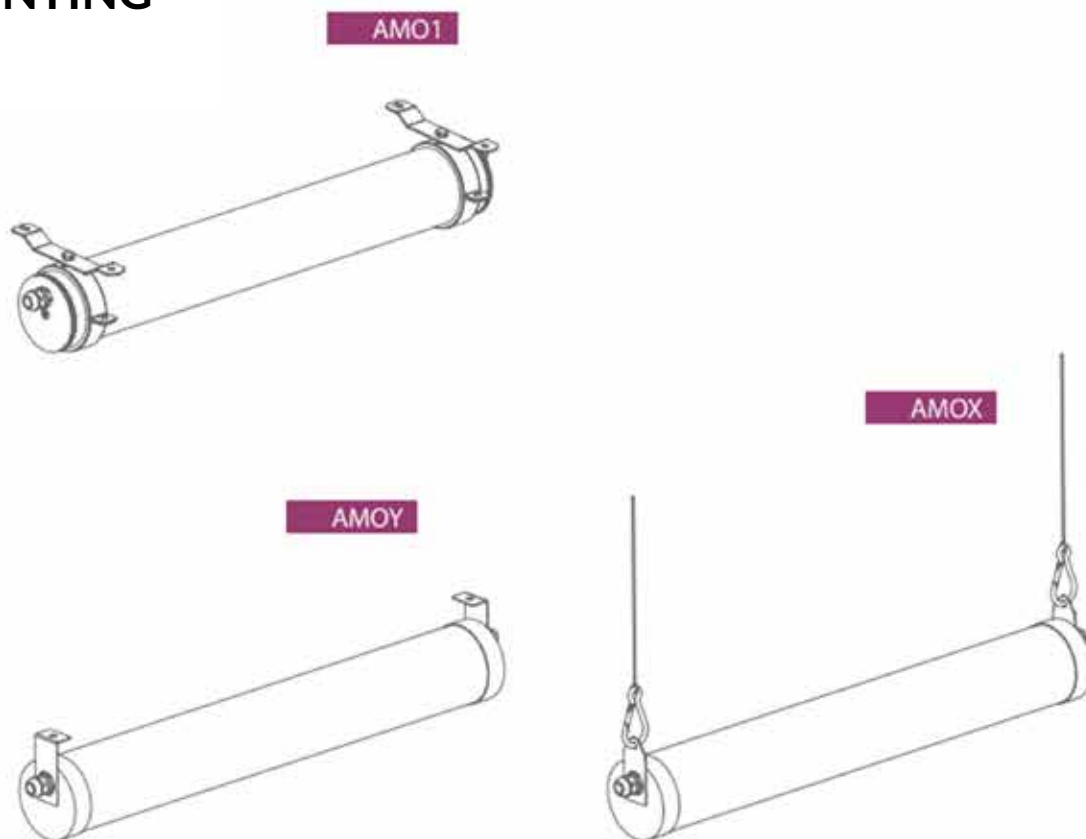
STANDARD VERSIONS

Type	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Ambient Temperatures (°C)
INS242LED-0600-J1-3	1826	13,8	132	-25 - +45
INS242LED-0600-J2-1	2622	18,5	142	-25 - +45
INS242LED-1200-J2-3	3652	26,4	138	-25 - +40
INS242LED-1200-B2-1	5243	35,7	147	-25 - +45
INS242LED-1200-B2-3	7305	51,6	142	-25 - +40
INS242LED-1200-B4-1	10487	70,4	149	-25 - +40

24VDC VERSIONS

Type	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Ambient Temperatures (°C)
INS242LED-0600-D1-0	1330	9,6	138	-25 - +45
INS242LED-0600-D2-0	2660	19,2	138	-25 - +45
INS242LED-1200-D4-0	5319	38,4	138	-25 - +45

MOUNTING



INS350LED



INDUSTRIAL
BUILDINGS



WAREHOUSES



PRODUCTION LINES



WASTE
INCINERATORS

MECHANICAL FEATURES

Housing: Grey polycarbonate

Diffuser: Clear polycarbonate nano-optics

Ingress protection: IP66, IP68

Impact strength: IK10

Mounting: Suitable for suspended, ceiling, wall, and surface mounting via stainless steel hooks and brackets

ELECTRICAL FEATURES

Wiring: Optional through wiring (up to 7 wires inside the light fitting)

Cable glands: PG 13.5 thread

Certification: CE, ENEC, CB, HACCP

WORK PARAMETERS

Ambient Temperatures: -25°C to +50°C

Lifetime: 50.000h L90 B10

PHOTOMETRICAL PARAMETERS

CRI: >80

Colour temperature: 4000K - standard

On request CRI > 80: 3000K, 5000K, 6500K

On request CRI > 90: 3000K, 4000K, 5000K, 6500K



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INS350LED

TYPES COMPARISON

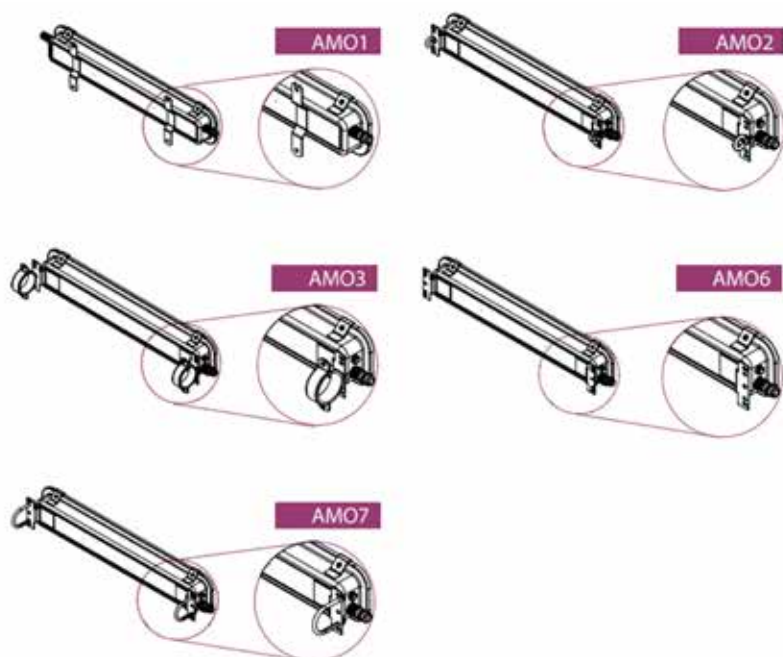
STANDARD VERSIONS

Type	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Work Temperatures (°C)
INS350LED-0600-J2-1	2650	18,2	145	-40 - +60
INS350LED-0600-J2-3	3700	25,7	144	-40 - +50
INS350LED-1200-J4-1	5390	34,5	156	-40 - +60
INS350LED-1200-J4-3	7500	49,1	153	-40 - +50
INS350LED-1200-B4-1	9150	57,8	158	-40 - +40
INS350LED-0600-D2*	2690	20,0	135	-40 - +60
INS350LED-1200-D4*	5370	39,3	137	-40 - +60

C5 VERSION

Type	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Work Temperatures (°C)
INS350LED-0600-J2-1	2200	18,2	121	-40 - +60
INS350LED-0600-J2-3	3100	25,7	120	-40 - +50
INS350LED-1200-J4-1	4620	34,5	134	-40 - +60
INS350LED-1200-J4-3	6430	49,1	131	-40 - +50
INS350LED-1200-B4-1	7980	57,8	138	-40 - +40

MOUNTING



*Dustproof, waterproof,
and impact-resistant.*



INDUSTRIAL
BUILDINGS



WAREHOUSES



AGRIBUSINESS



PRODUCTION LINES



WASTE
INCINERATORS

MECHANICAL FEATURES

Housing: Grey polycarbonate

Diffuser: Translucent polycarbonate

Ingress protection: IP66/IP69

Impact strength: IK10

Mounting: Suitable for suspended, ceiling, wall, and surface mounting via stainless hooks and brackets

ELECTRICAL FEATURES

Electric equipment: LED modules, fixed output driver or DALI driver

Wiring: Optional through wiring (up to 5 wires inside light fitting)

Certification: ESČ, ENEC, CB, HACCP

WORK PARAMETERS

Ambient Temperatures: up to 50°C

Lifetime: 50.000h L90 B10

PHOTOMETRICAL PARAMETERS

CRI: >80 standard

Colour temperature: 4000K - standard

CRI >80: 3000K, 5000K, 6500K - on request

CRI >90: 3000K, 4000K, 5000, 6500K - on request



TYPES COMPARISON

Type	Max. Ambient Temp. (°C)	Luminous flux of LED modules (lm)	Luminous flux of light fitting (lm)	System input (W)	System efficiency (lm/W)	UGR Longitudinal	Net weight (kg)	A (mm)	D (mm)
INNOVA 1.4ft PC 2600/840	50	2600	2440	16,1	152	22.1/20.4	1,5	1170	420 - 700
INNOVA 1.4ft PC 3200/840	50	3100	2910	19,1	152	22.7/21.0	1,5	1170	420 - 700
INNOVA 1.4ft PC 4400/840	45	4300	4040	26,0	155	23.9/22.2	1,5	1170	420 - 700
INNOVA 1.4ft PC 6400/840	45	6120	5750	36,1	159	25.1/23.4	1,5	1170	420 - 700
INNOVA 1.4ft PC 8800/840	40	8690	8170	49,7	164	26.3/24.6	1,6	1170	420 - 700
INNOVA 1.5ft PC 3250/840	50	3240	3050	19,5	156	22.1/20.5	1,8	1450	700 - 980
INNOVA 1.5ft PC 4000/840	50	3850	3620	23,3	155	22.7/21.1	1,8	1450	700 - 980
INNOVA 1.5ft PC 5500/840	45	5340	5020	31,9	157	23.9/22.2	1,8	1450	700 - 980
INNOVA 1.5ft PC 8000/840	45	7780	7310	44,3	165	25.2/23.5	1,8	1450	700 - 980
INNOVA 1.5ft PC 11000/840	40	12310	11570	71,1	163	26.8/25.1	1,9	1450	700 - 980

INNOVA PC

Type	1x3P	1x5P	DALI 1x5P	2x3P	2x5P	DALI 2x5P
INNOVA 1.4ft PC 2600/840	72111	72112	72113	72115	72116	72117
INNOVA 1.4ft PC 3200/840	72121	72122	72123	72125	72126	72127
INNOVA 1.4ft PC 4400/840	72131	72132	72133	72135	72136	72137
INNOVA 1.4ft PC 6400/840	72141	72142	72143	72145	72146	72147
INNOVA 1.4ft PC 8800/840	72101	72102	72103	72105	72106	72107
INNOVA 1.5ft PC 3250/840	72151	72152	72153	72155	72156	72157
INNOVA 1.5ft PC 4000/840	72161	72162	72163	72165	72166	72167
INNOVA 1.5ft PC 5500/840	72171	72172	72173	72175	72176	72177
INNOVA 1.5ft PC 8000/840	72181	72182	72183	72185	72186	72187
INNOVA 1.5ft PC 11000/840	72191	72192	72193	72195	72196	72197



Ceiling height from 3.5 to 8 metres, impact resistant.



INDUSTRIAL BUILDINGS



WAREHOUSES



AGRIBUSINESS



PRODUCTION LINES



WASTE INCINERATORS

MECHANICAL FEATURES

Housing: Grey polycarbonate

Diffuser: Translucent polycarbonate

Ingress protection: IP66/IP69

Impact strength: IK10

Mounting: Suitable for suspended, ceiling, wall, and surface mounting via stainless hooks and brackets

ELECTRICAL FEATURES

Electric equipment: LED modules, fixed output driver or DALI driver

Wiring: Optional through wiring (up to 5 wires inside light fitting)

Certification: ESČ, ENEC, CB, HACCP

TYPES COMPARISON

Part Code	Type	Max. Ambient Temp. (°C)	Luminous flux of LED modules (lm)	Luminous flux of light fitting (lm)	System input (W)	System efficiency (lm/W)	UGR Longitudinal	Net Weight (kg)
100023	Nanottica 1.2ft PC 1300/840	50	1310	1230	8,2	150	19.1/20.0	0,9
100024	Nanottica 1.2ft PC 1600/840	50	1560	1470	9,8	150	19.7/20.7	0,9
100025	Nanottica 1.2ft PC 2200/840	45	2140	2010	13,2	152	20.8/21.7	0,9
100027	Nanottica 1.4ft PC 2600/840	50	2600	2440	16,1	152	19.2/20.3	1,7
100028	Nanottica 1.4ft PC 3200/840	50	3100	2910	19,1	152	19.8/20.9	1,7
100029	Nanottica 1.4ft PC 4400/840	45	4300	4040	26,0	155	21.0/22.1	1,7
100030	Nanottica 1.4ft PC 6400/840	45	6120	5750	36,1	159	22.2/23.3	1,7
100031	Nanottica 1.5ft PC 3250/840	50	3240	3050	19,5	156	19.3/20.4	2,0
100032	Nanottica 1.5ft PC 4000/840	50	3850	3620	23,3	155	19.9/21.0	2,0
100032	Nanottica 1.5ft PC 5500/840	45	5340	5020	31,9	157	21.0/22.1	2,0
100033	Nanottica 1.5ft PC 8000/840	45	7780	7310	44,3	165	22.3/23.4	2,0



FOLLOW US ON SOCIAL MEDIA

WORK PARAMETERS

Ambient Temperatures: up to 50°C

Lifetime: 50.000h L90 B10

PHOTOMETRICAL PARAMETERS

CRI: >80 standard

Colour temperature: 4000K - standard

CRI >80: 3000K, 5000K, 6500K - on request

CRI >90: 3000K, 4000K, 5000, 6500K - on request

STAINLESS STEEL CLIPS

Type	1F	3F	M1h	M3h	3F M1h	3F M3h
Nanottica 1.2ft PC 1300/840	100080	100091	X	X	X	X
Nanottica 1.2ft PC 1600/840	100081	100092	X	X	X	X
Nanottica 1.2ft PC 2200/840	100082	100093	X	X	X	X
Nanottica 1.4ft PC 2600/840	100083	100094	100105	100113	100121	100129
Nanottica 1.4ft PC 3200/840	100084	100095	100106	100114	100122	100130
Nanottica 1.4ft PC 4400/840	100085	100096	100107	100115	100123	100131
Nanottica 1.4ft PC 6400/840	100086	100097	100108	100116	100124	100132
Nanottica 1.5ft PC 3250/840	100087	100098	100109	100117	100125	100133
Nanottica 1.5ft PC 4000/840	100088	100099	100110	100118	100126	100134
Nanottica 1.5ft PC 5500/840	100089	100100	100111	100119	100127	100135
Nanottica 1.5ft PC 8000/840	100090	100101	100112	100120	100128	100136

EMERGENCY BACK-UP M3H

Part Code	Type
X	Nanottica 1.2ft PC 1300/840
X	Nanottica 1.2ft PC 1600/840
100061	Nanottica 1.2ft PC 2200/840
100062	Nanottica 1.4ft PC 2600/840
100063	Nanottica 1.4ft PC 3200/840
100064	Nanottica 1.4ft PC 4400/840
100065	Nanottica 1.4ft PC 6400/8 40
100066	Nanottica 1.5ft PC 3250/840
100067	Nanottica 1.5ft PC 4000/840
100067	Nanottica 1.5ft PC 5500/840
100068	Nanottica 1.5ft PC 8000/840

Dustproof, waterproof, and impact-resistant.



INDUSTRIAL BUILDINGS



WAREHOUSES



WORKSHOPS



GARAGES

MECHANICAL FEATURES

Housing: Grey polycarbonate

Diffuser: Translucent polycarbonate

Ingress protection: IP66

Mounting: Suitable for suspended, ceiling, wall, and surface mounting via stainless hooks and brackets

ELECTRICAL FEATURES

Electric equipment: LED modules, fixed output driver or DALI driver

Wiring: Optional through wiring (up to 10 wires inside light fitting)

Certification: EPD, ENEC, CB, HACCP

WORK PARAMETERS

Ambient Temperatures: up to 50°C

Lifetime: 50.000h L90 B10

PHOTOMETRICAL PARAMETERS

CRI: >80 standard

Colour temperature: 4000K - standard

CRI >80: 3000K, 5000K, 6500K - on request

CRI >90: 3000K, 4000K, 5000, 6500K - on request



FOLLOW US ON SOCIAL MEDIA

TYPES COMPARISON

Part Code	Type	Max. Ambient Temp. (°C)	Luminous flux of LED modules (lm)	Luminous flux of light fitting (lm)	System input (W)	System efficiency (lm/W)	UGR Longitudinal	Net weight (kg)
x	FUTURA 2.2ft PC Al 2600/840	50	2600	2440	16,1	152	23.1/21.1	1,45
x	FUTURA 2.2ft PC Al 3200/840	50	3100	2910	19,1	152	23.8/21.8	1,45
x	FUTURA 2.2ft PC Al 4400/840	45	4300	4040	26,0	155	24.8/23.0	1,45
75640	FUTURA 2.4ft PC Al 5200/840	50	5230	4920	30,3	162	23.3/21.6	2,45
75650	FUTURA 2.4ft PC Al 6400/840	50	6240	5870	36,3	162	24.0/22.2	2,45
75660	FUTURA 2.4ft PC Al 8800/840	45	8690	8170	49,7	164	25.1/23.4	2,65
75432	FUTURA 2.4ft PC Al 12800/840	35	13920	13080	82,5	159	26.7/24.9	2,65
75670	FUTURA 2.5ft PC Al 6500/840	50	6500	6110	37,1	165	23.3/21.6	2,95
75680	FUTURA 2.5ft PC Al 8000/840	50	7770	7300	44,4	164	24.0/22.2	2,95
75690	FUTURA 2.5ft PC Al 11000/840	45	12310	11570	71,1	163	25.6/23.9	2,95
75442	FUTURA 2.5ft PC Al 16000/840	35	17440	16390	102,2	160	26.7/25.0	3,25

EMERGENCY BACK-UP VERSION M3H

Type	1F	3F	M1h	M3h	3F M1h	3F M3h
FUTURA 2.2ft PC Al 2600/840	x	x	75214	75215	x	x
FUTURA 2.2ft PC Al 3200/840	x	x	75224	75225	x	x
FUTURA 2.2ft PC Al 4400/840	x	x	75234	75235	x	x
FUTURA 2.4ft PC Al 5200/840	75540	75640	75244	75245	75644	75645
FUTURA 2.4ft PC Al 6400/840	75550	75650	75254	75255	75654	75655
FUTURA 2.4ft PC Al 8800/840	75560	75660	75264	75265	75664	75665
FUTURA 2.4ft PC Al 12800/840	75431	75432	x	x	x	x
FUTURA 2.5ft PC Al 6500/840	75570	75670	75274	75275	75674	75675
FUTURA 2.5ft PC Al 8000/840	75580	75680	75284	75285	75684	75685
FUTURA 2.5ft PC Al 11000/840	75590	75690	75294	75295	75694	75695
FUTURA 2.5ft PC Al 16000/840	75441	75442	x	x	x	x

FUTURA NB

For storage rack lanes with high ceilings 10-15 m.



INDUSTRIAL
BUILDINGS



WAREHOUSES

MECHANICAL FEATURES

Housing: Grey polycarbonate

Diffuser: Transparent polycarbonate

Ingress protection: IP66

Impact strength: IK10

Mounting: Suitable for suspended, ceiling, wall, and surface mounting

ELECTRICAL FEATURES

Electric equipment: LED modules, current driver, or current DALI driver

Wiring: Optional through wiring (up to 10 wires inside light fitting)

Certification: HACCP

WORK PARAMETERS

Ambient Temperatures: -25°C to 45°C

Lifetime: 50.000h L90 B10

PHOTOMETRICAL PARAMETERS

CRI: >80 standard

Colour temperature: 4000K - standard

CRI >80: 3000K, 5000K, 6500K - on request

CRI >90: 3000K, 4000K, 5000, 6500K - on request



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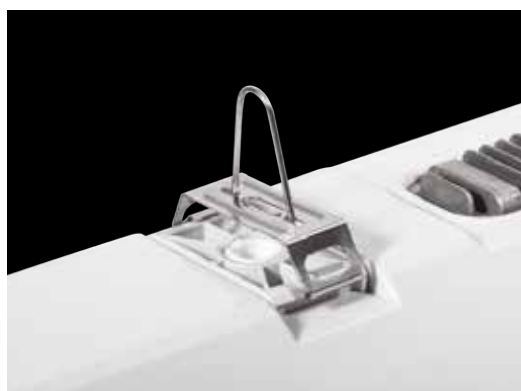
TYPES COMPARISON

Part Code	Type	Max. Ambient Temp. (°C)	Luminous flux of LED modules (lm)	Luminous flux of light fitting (lm)	System input (W)	System efficiency (lm/W)	UGR Longitudinal	Net weight (kg)
78360	FUTURA 2.4ft NB PC AI 8800/840	40	8690	7300	49,7	147	23.8/23.8	3,3
78370	FUTURA 2.4ft NB PC AI 12800/840	30	13920	11690	82,5	142	22.4/25.3	3,3
78390	FUTURA 2.5ft NB PC AI 11000/840	40	12310	10340	71,1	145	21.3/24.3	3,9
78380	FUTURA 2.5ft NB PC AI 16000/840	30	17440	14650	102,2	143	22.5/25.4	3,9

EMERGENCY BACK-UP M3H

Type	1F	3F	M1h	M3h	3F M1h	3F M3h
FUTURA 2.4ft NB PC AI 8800/840	78160	78360	78064	78065	78364	78365
FUTURA 2.4ft NB PC AI 12800/840	78170	78370	x	x	x	x
FUTURA 2.5ft NB PC AI 11000/840	78190	78390	78094	78095	78394	78395
FUTURA 2.5ft NB PC AI 16000/840	78180	78380	x	x	x	x

MOUNTING



Total protection against dust and water penetration.



OFFSHORE



PRESSURE CLEANED
INSTALLATIONS



INDUSTRIAL
BUILDINGS



RAIL/TUNNEL

MECHANICAL FEATURES

Housing: Borosilicate glass, aluminium, polycarbonate, stainless steel

Ingress protection: IP69

Shock resistance: IK10

Mounting: Stainless steel clamps, steel cable suspension, pole adapter

WORK PARAMETERS

Ambient Temperatures: -20°C to +40°C

Power: min 13W, max 40W

Lifetime: 70.000h L80 B50

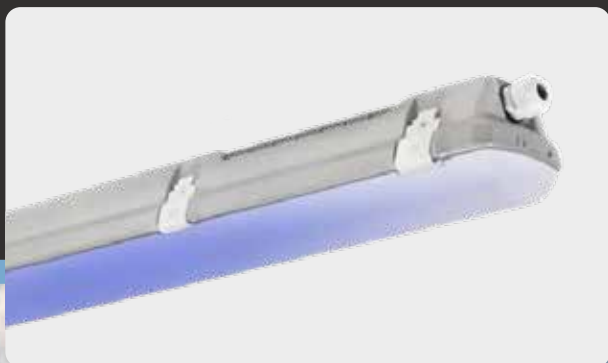
Illumination technology: LED

CRI: >80

DIMENSIONS

Size (mm)	Power (W)	Gross output (lm)	Net output (lm)	T ^a colour (°K)	L (mm)	D (mm)	D + clamp (mm)
600	13	1.490	997	3.000	763	100	120
600	13	1.550	1.037	4.000	763	100	120
600	18	2.427	1.626	3.000	763	100	120
600	18	2.558	1.714	4.000	763	100	120
1200	24	2.980	1.993	3.000	1.375	100	120
1200	24	3.200	2.140	4.000	1.375	100	120
1200	36	4.854	3.252	3.000	1.375	100	120
1200	36	5.116	3.428	4.000	1.375	100	120
1500	29	9.810	2.488	3.000	1.660	100	120
1500	29	4.000	2.675	4.000	1.660	100	120
1500	45	6.067	4.065	3.000	1.660	100	120
1500	45	6.395	4.285	4.000	1.660	100	120

Agricultural



CONCEPT RED

Ideal solution for illumination of barns without disturbing animals.



AGRIBUSINESS



FARMS

MECHANICAL FEATURES

Housing: Dark grey ABS

Diffuser: Translucent ABS, translucent acrylic

Ingress protection: IP66/IP69

Impact strength: IK10

Mounting: Suitable for suspended, ceiling, wall, and surface mounting

ELECTRICAL FEATURES

Connection: screwless five-pole terminal block, external, 5-pole, 1.5 mm² conductor cross-section (2.5 mm² available on demand)

Cable glands: PG 13.5 thread, External terminal block, 3 or 5 poles, 1.5 or 2.5 mm² wire cross-section

UGR: 23,1 - 24,7

WORK PARAMETERS

Ambient Temperatures: -25°C to +45°C

Lifetime: 50.000h L90 B10

PHOTOMETRICAL PARAMETERS

CRI: >80 standard

Colour temperature: 4000K

CONCEPT RED

TYPES COMPARISON

Type	Max. Ambient Temp. (°C)	Luminous flux of LED modules (lm)	Luminous flux of light fitting (lm)	Power Input (W)	System efficiency (lm/W)	Net weight (kg)	A (mm)	D (mm)
PRIMA 1.4ft ABS 6400/840 RED	45	6120	5690	36,1	158		1170	700 - 960
PRIMA 1.5ft ABS 8000/840 RED	45	7780	7240	44,3	163		1450	970 - 1230
INNOVA 1.4ft ABS 6400/840 RED	45	6120	5690	36,1	158	1,5	1170	420 - 700
INNOVA 1.5ft ABS 8000/840 RED	45	7780	7240	44,3	163	1,8	1450	700 - 980
FUTURA 2.4ft ABS 8800/840 RED	45	8690	7650	49,7	154	3	1172	700
FUTURA 2.5ft ABS 110000/840 RED	45	12310	10830	71,1	152	3,9	1452	940

TECHNOLOGY ALSO AVAILABLE IN:

FUTURA



INNOVA



CONCEPT BLUE

Ideal solution for illumination of poultry farms without disturbing animals.



AGRIBUSINESS



FARMS

MECHANICAL FEATURES

Housing: Dark grey ABS

Diffuser: Translucent ABS, translucent acrylic

Ingress protection: IP66/IP69

Impact strength: IK10

Mounting: Suitable for suspended, ceiling, wall, and surface mounting

ELECTRICAL FEATURES

Connection: Screwless five-pole terminal block, external, 5-pole, 1.5 mm² conductor cross-section (2.5 mm² available on demand)

Cable glands: PG 13.5 thread, External terminal block, 3 or 5 poles, 1.5 or 2.5 mm² wire cross-section

UGR: 23,5 - 24,7

WORK PARAMETERS

Ambient Temperatures: -25°C to +45°C

Lifetime: 50.000h L90 B10

PHOTOMETRICAL PARAMETERS

CRI: >80 standard

Colour temperature: 4000K

CONCEPT BLUE

TYPES COMPARISON

Type	Max. Ambient Temp. (°C)	Luminous flux of light fitting (lm)	Power Input (W)	System efficiency (lm/W)	A (mm)	D (mm)
PRIMA 1.4ft ABS 6400/840 RED	45	7240	44,3	163	1450	700 - 960
PRIMA 1.5ft ABS 8000/840 RED	45	7240	44,3	163	1450	970 - 1230
INNOVA 1.4ft ABS 6400/840 RED	45	7240	44,3	163	1450	420 - 700
INNOVA 1.5ft ABS 8000/840 RED	45	7240	44,3	163	1450	700 - 980
FUTURA 2.4ft ABS 8800/840 RED	45	10830	71,1	152	1452	700
FUTURA 2.5ft ABS 110000/840 RED	45	10830	71,1	152	1452	940

TECHNOLOGY ALSO AVAILABLE IN:

FUTURA



INNOVA



FOLLOW US ON SOCIAL MEDIA

INNOVA ABS



Dustproof, waterproof, and chemically resistant.



INDUSTRIAL BUILDINGS



WAREHOUSES



AGRIBUSINESS



PRODUCTION LINES



WASTE INCINERATORS

MECHANICAL FEATURES

Housing: Dark grey ABS

Diffuser: Translucent ABS

Ingress protection: IP66/IP69

Impact strength: IK10

Mounting: Suitable for suspended, ceiling, wall, and surface mounting via stainless hooks and brackets

ELECTRICAL FEATURES

Electric equipment: LED modules, fixed output driver or DALI driver

Wiring: Optional through wiring (up to 5 wires inside light fitting)

Certification: CE, ENEC, ENEC, CB, HACCP, DLG

WORK PARAMETERS

Ambient Temperatures: -25°C to +50°C

Lifetime: 50.000h L90 B10

PHOTOMETRICAL PARAMETERS

CRI: >80 standard

Colour temperature: 4000K - standard

CRI >80: 3000K, 5000K, 6500K - on request

CRI >90: 3000K, 4000K, 5000, 6500K - on request

INNOVA ABS

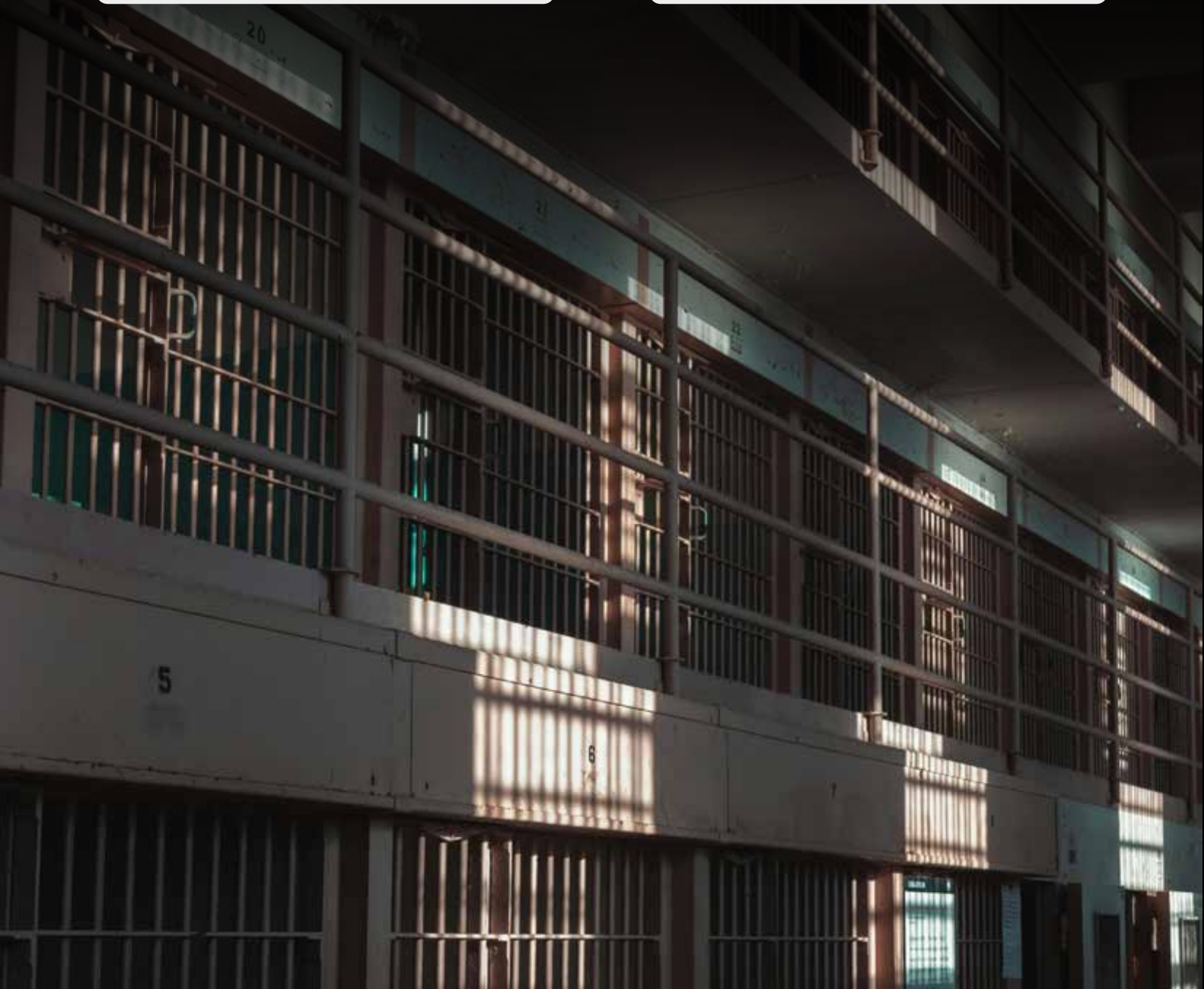
TYPES COMPARISON

Type	Max. Ambient Temp. (°C)	Luminous flux of LED modules (lm)	Luminous flux of light fitting (lm)	System input (W)	System efficiency (lm/W)	UGR Longitudinal	Net weight (kg)	A (mm)	D (mm)
INNOVA 1.4ft ABS 2600/840	50	2600	2420	16,1	150	22.1/20.4	1,5	1170	420 - 700
INNOVA 1.4ft ABS 3200/840	50	3100	2880	19,1	151	22.7/21.0	1,5	1170	420 - 700
INNOVA 1.4ft ABS 4400/840	45	4300	4000	26,0	154	23.8/22.1	1,5	1170	420 - 700
INNOVA 1.4ft ABS 6400/840	45	6120	5690	36,1	158	25.0/23.4	1,5	1170	420 - 700
INNOVA 1.4ft ABS 8800/840	40	8690	8080	49,7	163	26.3/24.6	1,6	1170	420 - 700
INNOVA 1.5ft ABS 3250/840	50	3240	6010	19,5	154	22.1/20.4	1,8	1450	700 - 980
INNOVA 1.5ft ABS 4000/840	50	3850	3580	23,3	154	22.7/21.1	1,8	1450	700 - 980
INNOVA 1.5ft ABS 5500/840	45	5340	4970	31,9	156	23.8/22.2	1,8	1450	700 - 980
INNOVA 1.5ft ABS 8000/840	45	7780	7240	44,3	163	25.1/23.5	1,8	1450	700 - 980
INNOVA 1.5ft ABS 11000/840	40	12310	11450	71,1	161	26.7/25.1	1,9	1450	700 - 980

INNOVA ABS

Type	1x3P	1x5P	DALI 1x5P	2x3P	2x5P	DALI 2x5P
INNOVA 1.4ft PC 2600/840	72411	72412	72413	72415	72416	72417
INNOVA 1.4ft PC 3200/840	72421	72422	72423	72425	72426	72427
INNOVA 1.4ft PC 4400/840	72431	72432	72433	72435	72436	72437
INNOVA 1.4ft PC 6400/840	72441	72442	72443	72445	72446	72447
INNOVA 1.4ft PC 8800/840	72401	72402	72403	72405	72406	72407
INNOVA 1.5ft PC 3250/840	72451	72452	72453	72455	72456	72457
INNOVA 1.5ft PC 4000/840	72461	72462	72463	72465	72466	72467
INNOVA 1.5ft PC 5500/840	72471	72472	72473	72475	72476	72477
INNOVA 1.5ft PC 8000/840	72481	72482	72483	72485	72486	72487
INNOVA 1.5ft PC 11000/840	72491	72492	72493	72495	72496	72497

Custodial



INP320LED

Includes central battery, DALI interface, motion sensor, and night light.



INTERROGATION
ROOMS



PENAL
INSTITUTIONS

MECHANICAL FEATURES

Housing: Powder coated galvanized steel sheet

Diffuser: Thick polycarbonate

Ingress protection: IP65

Impact strength: IK11 + (150J)

Mounting: 4 holes, easy mounting

ELECTRICAL FEATURES

Connection terminals: 2,5 mm²

Input voltage: 230V 0/50-60Hz

Light source: LED modules with ENEC certificate

Power factor: >0,95

Cable inlets: 2 x Ø20

Overvoltage protection: 1kV

WORK PARAMETERS

Ambient Temperatures: -30°C to +45°C

Lifetime: 50.000h L80 B10

PHOTOMETRICAL PARAMETERS

CRI: >80

Colour temperature: 4000K



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INP320LED

TYPES COMPARISON

STANDARD VERSIONS

Type	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Max. Ambient Temperature (°C)
INP320LED-0600-J2-1	2103	18,8	112	45
INP320LED-0600-J2-3	2993	27,2	108	45
INP320LED-0600-B2-1	4281	36,6	117	45
INP320LED-0600-B2-2	4836	42,1	115	45
INP320LED-0600-J4-1	4173	36,6	114	45
INP320LED-0600-J4-2	4715	42,1	112	45
INP320LED-0600-J4-3	5755	53,5	108	45
INP320LED-0600-B4-1	8721	72,1	121	45
INP320LED-0600-J4M2-1	5259	45,4	116	45
INP320LED-0600-J4M2-2	6142	55,9	110	45

VERSIONS 24VDC

Type	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Max. Ambient Temperature (°C)
INP320LED-0600-D2-0	1720	20	115	45
INP320LED-0600-D4-0	4592	40	115	45
INP320LED-1200-D4-0	4592	40	115	45
INP320LED-1200-D8-0	9184	80	115	45

MEAN EMERGENCY MODE LUMINOUS FLUX

Type	Version A3 (lm)
INP320LED-0600-J2-1	506
INP320LED-0600-J2-3	457
INP320LED-0600-B2-1	515
INP320LED-0600-B2-2	496
INP320LED-0600-J4-1	502

Type	Version A3 (lm)
INP320LED-0600-J4-2	484
INP320LED-0600-J4-3	485
INP320LED-0600-B4-1	525
INP320LED-0600-J4M2-1	498
INP320LED-0600-J4M2-2	461

INP320LED SF

Includes central battery, motion sensor, DAL interface, and night light.



INTERROGATION
ROOMS



PRISON CELLS

MECHANICAL FEATURES

Housing: Powder coated galvanized steel sheet

Diffuser: Thick polycarbonate

Ingress protection: IP65

Impact strength: IK11 + (150J)

Mounting: 4 holes, easy mounting

ELECTRICAL FEATURES

Connection terminals: 2,5 mm²

Input voltage: 230V 0/50-60Hz

Light source: LED modules with ENEC certificate

Power factor: >0,95

Cable inlets: 2 x Ø20

Overvoltage protection: 1kV

WORK PARAMETERS

Ambient Temperatures: -30°C to +45°C

Lifetime: 50.000h L80 B10

PHOTOMETRICAL PARAMETERS

CRI: >80

Colour temperature: 4000K



FOLLOW US ON SOCIAL MEDIA

INP320LED SF

TYPES COMPARISON

STANDARD VERSIONS

Type	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Max. Ambient Temperature (°C)
INP320LED-0600-J2-1-...-SF	2113	18,8	112	45
INP320LED-0600-J2-3-...-SF	2857	27,2	105	45
INP320LED-0600-B2-1-...-SF	4171	36,6	114	45
INP320LED-0600-B2-2-...-SF	4665	42,1	111	45
INP320LED-0600-J4-1-...-SF	4420	36,6	121	45
INP320LED-0600-J4-2-...-SF	4990	42,1	119	45
INP320LED-0600-J4-3-...-SF	5921	53,5	111	45
INP320LED-0600-B4-1-...-SF	9037	72,1	125	45
INP320LED-0600-B4-2-...-SF	9853	83,2	118	45
INP320LED-0600-J4M2-1-...-SF	5040	45,4	111	45
INP320LED-0600-J4M2-3-...-SF	7237	72,7	129	45

VERSIONS 24VDC

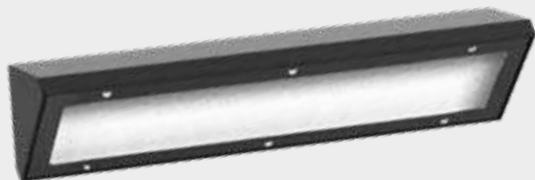
Type	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Max. Ambient Temperature (°C)
INP320LED-0600-D2-0-...-SF	2296	20	115	45
INP320LED-0600-D4-0-...-SF	4592	40	115	45
INP320LED-1200-D4-0-...-SF	4592	40	115	45
INP320LED-1200-D8-0-...-SF	9184	80	115	45

MEAN EMERGENCY MODE LUMINOUS FLUX

Type	Version A3 (lm)
INP320LED-0600-J2-1-...-SF	506
INP320LED-0600-J2-3-...-SF	445
INP320LED-0600-B2-1-...-SF	502
INP320LED-0600-B2-2-...-SF	479
INP320LED-0600-J4-1-...-SF	532
INP320LED-0600-J4-2-...-SF	512

Type	Version A3 (lm)
INP320LED-0600-J4-3-...-SF	499
INP320LED-0600-B4-1-...-SF	544
INP320LED-0600-B4-2-...-SF	519
INP320LED-0600-J4M2-1-...-SF	477
INP320LED-0600-J4M2-3-...-SF	465

Rail



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INV320LED

Vandalproof light fittings



PASSAGEWAYS



PLACES PRONE
TO VANDALISM

MECHANICAL FEATURES

Housing: Powder coated stainless steel

Diffuser: Prismatic polycarbonate

Ingress protection: IP65

Impact strength: IK11 + (150J)

Mounting: 4 holes, easy mounting

ELECTRICAL FEATURES

Connection terminals: 2,5 mm²

Input voltage: 230V 0/50-60Hz

Light source: LED modules with ENEC certificate

Power factor: >0,95

Cable inlets: 2 x Ø20

Overvoltage protection: 10kV

WORK PARAMETERS

Ambient Temperatures: -40°C to +45°C

Lifetime: >50.000h L80 B50

PHOTOMETRICAL PARAMETERS

CRI: >80

Colour temperature: 4000K

TYPES COMPARISON

STANDARD VERSIONS

Type	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Max. Ambient Temperature (°C)
INV320LED-0600-J2-1	2103	18,8	112	45
INV320LED-0600-J2-3	2993	27,2	108	45
INV320LED-0600-B2-1	4281	36,6	117	45
INV320LED-0600-B2-2	4836	42,1	115	45
INV320LED-0600-J4-1	4173	36,6	114	45
INV320LED-0600-J4-2	4715	42,1	112	45
INV320LED-0600-J4-3	5755	53,5	108	45
INV320LED-0600-B4-1	8721	72,1	121	45
INV320LED-0600-J4M2-1	5259	45,4	116	45
INV320LED-0600-J4M2-3	6142	72,7	110	45

MEAN EMERGENCY MODE LUMINOUS FLUX

Type	Version A3 (lm)
INV320LED-0600-J2-1	506
INV320LED-0600-J2-3	457
INV320LED-0600-B2-1	515
INV320LED-0600-B2-2	496
INV320LED-0600-J4-1	502
INV320LED-0600-J4-2	484
INV320LED-0600-J4-3	485
INV320LED-0600-B4-1	525
INV320LED-0600-J4M2-1	498
INV320LED-0600-J4M2-3	461

INV320LED RC

Vandalproof light fittings



PASSAGEWAYS



PLACES PRONE
TO VANDALISM

CERTIFICATE: EN-60658-2-22 CERTIFICATE CNBOP no. 2910/2019

MECHANICAL FEATURES

Housing: Powder coated stainless steel

Diffuser: Prismatic polycarbonate

Ingress protection: IP65

Impact strength: IK11 + (150J)

Mounting: 4 holes, easy mounting

ELECTRICAL FEATURES

Connection terminals: 2,5 mm²

Input voltage: 230V 0/50-60Hz

Light source: LED modules with ENEC certificate

Power factor: >0,95

Cable inlets: 2 x Ø20

Overvoltage protection: 10kV

WORK PARAMETERS

Ambient Temperatures: -40°C to +45°C

Lifetime: >50.000h L80 B50

PHOTOMETRICAL PARAMETERS

CRI: >80

Colour temperature: 4000K

INV320LED RC

TYPES COMPARISON

NARROW VERSION

Type	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Max. Ambient Temperature (°C)
INV320LED-1200-J2-1-..-RC	2140	18,8	114	45
INV320LED-1200-J2-3-..-RC	2766	27,2	101	45
INV320LED-1200-B2-1-..-RC	4280	36,6	117	40

WIDE VERSION

Type	Luminous Flux (lm)	Power Consumption (W)	Efficiency (lm/W)	Max. Ambient Temperature (°C)
INV320LED-0600-J2-1-..-RC	2140	18,8	114	45
INV320LED-0600-J2-3-..-RC	2766	27,2	101	45
INV320LED-0600-B2-1-..-RC	4280	36,6	118	40
INV320LED-1200-J4-1-..-RC	4260	36,6	118	45
INV320LED-1200-J4-3-..-RC	5534	53,5	104	45
INV320LED-1200-B4-2-..-RC	9067	83,2	109	40

TYPES COMPARISON

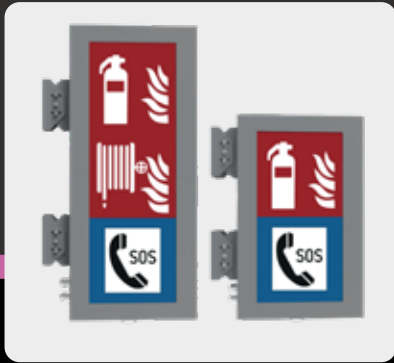
NARROW VERSION

Type	Version A3 (lm)
INV320LED-0600-J1-1	418
INV320LED-0600-J1-3	389
INV320LED-0600-B1-1	444
INV320LED-0600-B1-2	465
INV320LED-1200-J2-1	444
INV320LED-1200-J2-3	399
INV320LED-1200-B2-1	438

WIDE VERSION

Type	Version A3 (lm)
INV320LED-0600-J1-1	444
INV320LED-0600-J1-3	399
INV320LED-0600-B2-1	438
INV320LED-1200-J4-1	438
INV320LED-1200-J4-3	384
INV320LED-1200-B4-2	515

Tunnel



TNL300LED



Tunnel light fittings



RAIL/TUNNEL

CERTIFICATE: EN-60658-2-22 CERTIFICATE CNBOP no. 4378/2021

MECHANICAL FEATURES

Housing: Stainless steel

Diffuser: Tempered glass

Ingress protection: IP65

Protection class: I

Mounting: 4 holes

ELECTRICAL FEATURES

Input voltage: 230V 0/50-60Hz | 230VDC

Light source: LED modules with ENEC certificate

Cable glands: max 4 x M32

Connection terminals: 4mm²

Overvoltage protection: 10kV

Control system: Integrated DALI driver

WORK PARAMETERS

Ambient Temperatures: -25°C to +45°C

Lifetime: 70.000h L80 B10



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TNL300LED

TYPES COMPARISON

Type	Luminous Flux (lm)	Additional Luminous Flux (lm)	Power (W)	Ambient Temperature (°C)
TNL300LED-0300-V1	>200	645	18,5+8	-25 ÷ +45
TNL300LED-0300-V2	>200	X	18,5	-25 ÷ +45

OPTIONAL VERSIONS

- Customised pictograms
- Address module
- Housing made of steel type 304
- Housing made of steel type 316
- Housing made of steel type 316 TI

SAMPLE PICTOGRAMS



TNL310LED

Tunnel light fittings



CERTIFICATE: EN-60658-2-22 CERTIFICATE CNBOP no. 4376/2021

MECHANICAL FEATURES

Housing: Stainless steel

Diffuser: Tempered glass

Ingress protection: IP65

Protection class: I

Mounting: With bracket

Access: With key

ELECTRICAL FEATURES

Input voltage: 230V 0/50-60Hz | 230VDC

Light source: LED modules with ENEC certificate

Cable glands: max 4 x M25 lub 2 x M32

Connection terminals: 7 x 4mm²

Overvoltage protection: 6kV

Control system: Integrated DALI driver

WORK PARAMETERS

Ambient Temperatures: -25°C to +45°C

Lifetime: 70.000h L80 B10

PHOTOMETRICAL PARAMETERS

CRI: >80

Colour temperature: 2700K (SOS), 4000K (EXIT)

TNL310LED

TYPES COMPARISON

Type	Power Supply (W)	Pictogram luminance (cd/m ²)	Ambient Temperature (°C)
TNL310LED-...-0300	24	>200	-25 – +45
TNL310LED-...-0600	46,5	>200	-25 – +45
TNL310LED-...-0900	68,5	>200	-25 – +45

OPTIONAL VERSIONS

- Customised pictograms
- Address module
- Housing made of steel type 304
- Housing made of steel type 316
- Housing made of steel type 316 TI

SAMPLE PICTOGRAMS



TNL310LED fittings meet the parameters for flash devices in the scope of a.o. frequency of pulses, duration of pulses, effective light intensity according to the standards:

- PN-EN 13032-4:2015-09;
- PN-EN 60598-1:2015-04;
- PN-EN-54-23_2010P;
- PN-EN-1838:2013-11E;
- DIN 4844-1 2012.

TNL320LED



Tunnel light fittings



RAIL/TUNNEL

CERTIFICATE: EN-60658-2-22 CERTIFICATE CNBOP no. 4470/2021

MECHANICAL FEATURES

Housing: Stainless steel

Diffuser: Tempered glass

Ingress protection: IP65

Protection class: I

Mounting: Mounting holes

ELECTRICAL FEATURES

Input voltage: 230V 0/50-60Hz | 230VDC

Light source: LED modules with ENEC certificate

Cable glands: max 4 x M32

Connection terminals: 7 x 6mm²

Overvoltage protection: 10kV

Control system: Integrated DALI driver

WORK PARAMETERS

Ambient Temperatures: -40°C to +45°C

Lifetime: 70.000h L80 B10

PHOTOMETRICAL PARAMETERS

CRI: >80

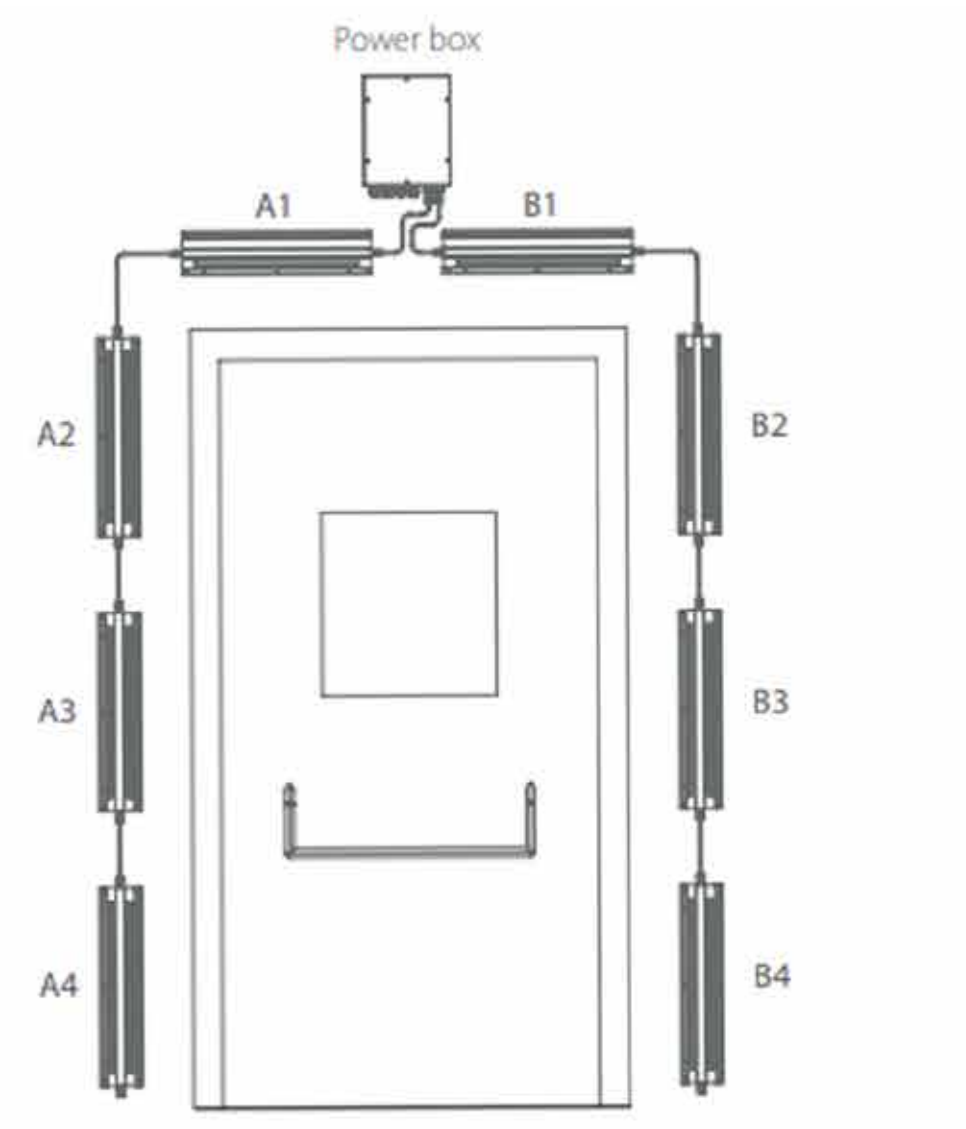
Colour temperature: 2700K (SOS), 4000K (EXIT)



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TNL320LED

TYPICAL LAYOUT OF THE ELEMENTS OF THE SYSTEM DRAFT



The layout of the elements around the exit door can be modified according to the project specification.

TNL440LED

Tunnel light fittings



RAIL/TUNNEL

CERTIFICATE: EN-60658-2-22 CERTIFICATE CNBOP no. 4371/2021

TNL440LED light fitting has been equipped with an inspection flap providing easy access to the inside.

MECHANICAL FEATURES

Housing: Stainless steel

Diffuser: Tempered glass

Ingress protection: IP66

Protection class: I

Radiators: Aluminium

Access: With key

ELECTRICAL FEATURES

Input voltage: 210-250V 50/60Hz | 210-250 VDC

Light source: LED modules with ENEC certificate

Cable glands: max 4 x M25 lub 2 x M32

Connection terminals: 7 x 10mm²

Overvoltage protection: 6kV

Control system: Integrated DALI driver

WORK PARAMETERS

Ambient Temperatures: -40°C to +60°C

Lifetime: 100.000h L80 B10

PHOTOMETRICAL PARAMETERS

CRI: >70

Colour temperature: 4000K



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TNL440LED

TYPES COMPARISON

Type	Luminous Flux (lm)	Power Supply (W)	Efficiency (lm/W)	Max. Ambient Temperature (°C)
TNL440LED-030-HB4	4094	28,0	146,2	60
TNL440LED-040-HB4	5842	39,6	147,5	60
TNL440LED-050-HB4	6908	46,5	148,6	55
TNL440LED-070-HB4	9185	62,1	147,9	50
TNL440LED-090-HB4	12164	83,9	145,0	45
TNL440LED-130-HB8	17556	118,4	148,3	55
TNL440LED-170-HB8	21979	150,2	146,3	50
TNL440LED-250-HB8	28903	203,4	142,1	40
TNL440LED-270-HA8	35004	240,8	145,4	45
TNL440LED-330-HA8	41016	288,4	142,2	40
TNL440LED-400-HA10*	54874	357,6	153,5	40

*The TNL440LED-400-HA10 is not subject to CNBOP certification.

Accessories



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LIGHTING ACCESSORIES

E1EX



Captive Component Gland for Steel and Aluminium Armoured Cable: Ex db IIC, Ex eb IIC, Ex tb IIIC, Ex nR IIC...

- Freely rotating captive cone and inspectible cone ring provides an armour clamp and earth bond on steel wire and aluminium armour.
- Patented disconnect system that allows inspection of armour clamp and inner seal after assembly.
- Factory fitted with a specially formulated elastomeric seal for Built-in Safety™, seals on the inner and outer sheath of the cable to IP65/66/68.
- Precision manufactured from high-quality brass (Marine Grade Electroless Nickel Plated™) available in stainless steel 316/316L upon request
- Complete with thread sealing gasket.

GRP



Zone 1, 21/2, 22 Lighting Junction Box. For both Gas and Dust Applications...

- Certified ATEX / IEC Ex
- Suitable for Operation in Zones 1, 2, 21 & 22
- Available as Exe, ExnA, Exia or Exib
- Voltage Max 690v AC/DC Current 225 amp
- Anti-Static black to RAL700
- Super Tough GRP Construction
- Ingress Protection IP66 and IP67 ambients of – 50 deg C + 70 deg C as standard with options for – 50 deg C to + 120 deg C
- Fire resistant option are available on the Industrial versions
- Suitable for a variety of Terminals

SWE 16-2-A ISOLATION SWITCHES

Designed to prevent operation in explosive atmospheres during connect and disconnect operation of lighting and light power loads...



- Two M20 threaded entries on the bottom of the box.
- Switch mechanism fixed on the bottom of the box. Padlockable handle in position 0 using maximum 4 padlocks (maximum handle dia. 8 mm and minimum 15 mm length).
- Termination: 2.5 mm² flexible / 4 mm² solid
- Internal earth: 2 x 4 mm² terminals
- Supplied with: 1 x yellow self-adhesive laminated plastic label with black lettering (65 x 18 mm)
- Standard Material of Fixtures

2 POSITION SELECTOR SWITCH

Zone 1, 21/2, 22 Lighting Junction Box. For both Gas and Dust Applications...



- Employs Ex de method of protection which eliminates the need for external seals.
- Operators include push buttons, illuminated push buttons, selector switches, control and load break switches and LED pilot lights.
- AC1, AC3, DC1
- NEMA Switch Rated
- TS35 rail mounted components held securely in place during operation and easily removed for service.
- Brass Inserts are provided for TS35 DIN rails or mounting plate to be installed inside the enclosure.
- Captive, corrosion resistant stainless steel cover screws.

EXD ENCLOSURES

We can provide a range of Exd Enclosures in various Materials and sizes to suit ATEX applications worldwide. Exd enclosures provide an explosion-proof solution to contain electrical components and systems, protecting the equipment from external factors and Hazards, and also being able to contain any explosion inside. We can provide Design, Assembly and Certification.

CCA-E

- Recommended for fitting with terminals due to their ample room and easier operator access.
- Recognised worldwide for their specific aluminium alloy and mechanical properties.
- Used where group IIC gases are present.
- Commonly used to carry terminals, fuse carriers, transformers, reactors, and barriers.
- Also used for control and signalling boards, light and power boards, and motor starter boxes.
- Configurations are custom-made to customer requirements worldwide.
- CCA-EH series features a threaded lid with a tempered glass viewing window.



SA, SAG

- Made from aluminium alloy with an epoxy coating containing stainless steel particles.
- Coating is baked at 200°C for UV and thermal stability.
- Resistant to mechanical impact, salt mist, marine, and damp environments.
- Used as junction boxes and for routing analogue or digital signals to control rooms.
- Controls, monitors, and signals equipment like motors and pumps.
- Provides readings such as flow rate, level, temperature, and pressure.
- 7mm wall thickness allows direct connection with tapered thread pipes and fittings.



EJB



- EJB series junction boxes are suitable for installation in areas at risk of explosion or classified as Zone 1, 2, 21, 22.
- Recognised worldwide for their aluminium alloy and mechanical properties of finishes.
- Used primarily to carry terminals, busbars, fuse carriers, transformers, reactors, and barriers.
- Also used for producing control and signalling boards, light and power boards, surge arresters, and motor starter boxes.
- Configurations are custom-made to meet global customer requirements.

SX7E



- SX7E series junction boxes are UL certified.
- Available in various dimensions.
- Used as junction boxes with or without terminals.
- Also used for installation of electrical equipment such as circuit breakers, signals, disconnectors, remote control switches, transformers, etc.
- Body and cover can be drilled and threaded according to customer specifications.

EJBC



- EJBC series junction boxes designed for hazardous areas with Group IIA, IIB, and IIC gases in Zone 1, 2, 21, 22.
- Features a precision-engineered multi-step joint for extended protection against Group IIC gases like Acetylene, Carbon disulphide, and Hydrogen.
- Ensures robust safety in explosive and fire-prone environments.
- Compliant with global standards for industrial reliability and durability.



EXD ENCLOSURES

SA-SS



- SA-SS series junction boxes are made from AISI 316L stainless steel, ideal for aggressive environments as increased safety or intrinsically safe boxes.
- Available with multipolar or modular terminal blocks.
- Can be equipped with pilot lights, push buttons, and measuring instruments for control and signalling panel stations.
- Junction boxes can be custom drilled according to customer specifications.

EJBX



- EJBX series junction boxes are installed in industrial plants at risk of explosion and fire, and where combustible dust is present, classified as Zone 1, 2, 21, 22.
- Made from welded 316L sheet stainless steel with stainless steel screws and a silicone gasket for IP66 protection.
- Primarily used as junction boxes with connection terminals, and as enclosures for fuses, transformers, reactors, monitoring, and signalling boards.
- Also utilized as light and power boards or motor starter boxes with customizable configurations to meet global customer specifications.

GUBE



- GUBE series control panels combine an 'Ex d' junction box (CCAIF series) and an 'Ex e' junction box (CTB series) made from stainless steel AISI 316L.
- Specifically designed for the offshore market.
- The 'Ex d' junction box accommodates electrical components like measuring instruments and PLCs.
- The 'Ex e' increased safety junction box is used for terminal blocks to connect incoming cables.

CTB, CSTB



- CTB, CSTB junction box series made from AISI 316L stainless steel ensures optimal performance in aggressive environments.
- Resists water, dust, impacts, vibrations, corrosion, and extreme temperatures, ensuring long-lasting reliability.
- Primarily used for routing cables for signals and control, protecting internal components from moisture and dust.
- Meets appropriate IP ratings tested according to EN 60529, with custom solutions tailored to customer needs.

SA-P



- SA-P series junction boxes are constructed from fibreglass-reinforced polyester, providing high resistance to fuel oils, mechanical shock, and contamination.
- Lightweight and practical, ideal for industrial plants, particularly in zones prone to explosion and fire risks (Zone 1, 2, 21, and 22) due to combustible gases or dust.
- Features easy wall-mounting holes in the base and a lid with a silicone gasket resistant to extreme temperatures, secured by AISI 304 stainless steel screws, achieving an IP66 rating.
- Mainly used for cable routing in signal and control applications, accommodating various terminal strip configurations.

CONTROL & COMMAND

A full range of explosion-protected control stations for the supply of lighting circuits or motive power distribution in any type of industrial application. They can be equipped with 'Ex d', 'Ex e' and 'Ex tb' IP66 command and control operators. The 'Ex d' limit switches in aluminum alloy have a wide range of actuators and multiple combinations of contacts allowing to realise the optimal solution for a perfect operation of the system located in a hazardous area.

I



- I series control stations are made from stainless steel, suitable for housing electrical equipment such as control and signalling devices.
- Designed for installation onboard machines or remotely, widely used in chemical, petrochemical, and pharmaceutical industries.
- Variety of standard models and customized options to meet specific needs.

CMD



- CMD command and monitoring units are made from fiberglass reinforced polyester, accommodating a comprehensive range of switches, control, monitoring, and signalling devices.
- Designed innovatively to minimize overall dimensions while ensuring resistance, reliability, and straightforward installation.
- Suitable for mounting onboard machines or remotely to power circuits such as lighting or motive power across various industrial applications.
- Offers extensive customization options with a wide array of components to tailor solutions for optimal system operation in hazardous areas.

CSC



- CSC series includes rotary-type 16 A circuit breakers, switches, and changeover switches.
- Features a control handle on the cover for convenient operation.
- Supplied with a Male 1" - Female 3/4" reducer for versatile installation options.

EFD3



- EFD3 series three-pole magnetothermic breakers are utilized for commanding (start-stop) and protecting three-phase motors.
- Features adjustable magnetothermic protection and an external control handle.
- Designed for efficient operation and safety in industrial motor applications.

EMHA



- EMHA series instrument housings are typically used to enclose medium-sized analog instruments like ammeters and voltmeters.
- Designed to provide protection and support for accurate instrument readings in various applications.

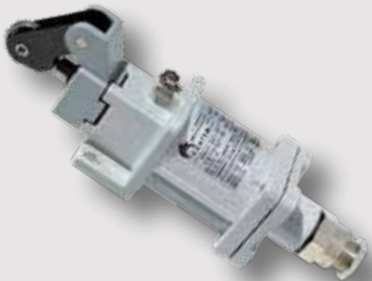
CONTROL & COMMAND

GRDC-4200



- GRDC-4200 is a capacitive-type electronic earthing system designed for earthing tankers, rail tankers, and IBCs transporting flammable liquids like fuels, chemicals, powders, and granulates.
- The system analyzes the overall capacitance of the vehicle to activate load only upon actual connection, ensuring safety.
- Uses electrical capacitance reading to differentiate between connection to the tank or other metal objects (pipe, ladder, etc.).
- Enhances reliability and safety, preventing operator misuse and ensuring effective grounding during transport.

YFC



- YFC series are explosion-proof limit switches designed for common installation requirements.
- Known for easy wiring, quick installation, solidity, and long-term reliability in aluminium alloy construction.
- Offered with a variety of actuators and contact combinations to ensure optimal system functionality in hazardous environments.

GRDE-4200



- GRDE-4200 electronic earthing system prevents fire and explosions in areas with hazardous static electricity levels during truck or train loading and unloading of liquids and dry materials.
- Comprises an 'Ex eb/tb' enclosure housing the ATEX/IECEX certified grounding control logic LCZ-4200.
- Includes 'Ex eb/tb' control and signal devices such as selectors and alert LED lights for effective operation.
- Can be equipped with one or two earthing clamps for connection to tank trucks or other metallic components.

M-0 Ex e



- M-0 Ex e control, monitoring, and signalling devices are designed as external accessories for 'Ex-e' enclosures in industrial environments with explosive atmospheres (Zone 1, 2, 21, 22).
- Control devices facilitate the opening and closing of electrical or mechanical components housed within 'Ex e' enclosures.
- Signalling devices incorporate stainless steel components for durability and efficient operation in diverse environmental conditions.
- Features such as aluminium levers and corrosion-resistant plastic push-button parts ensure extended service life, even in highly corrosive atmospheres, with an IP66 protection rating.

ECDE



- ECDE automatic drainage and breather valves (ECDE series) are designed for increased safety, intrinsic safety, or watertight enclosures.
- Facilitate the elimination of condensation or vapors inside enclosures through continuous drainage and breathing.
- Features a precise mechanism to maintain suitable IP protection by preventing internal condensation buildup, eliminating the need for periodic manual discharge.

M-0 Ex tb



- M-0 Ex tb control, monitoring, and signalling devices are external accessories for Cortem 'Ex d' enclosures in industrial environments with explosive atmospheres (Zone 1, 2, 21, 22).
- Control devices enable the operation of electrical or mechanical components housed within 'Ex d' enclosures.
- Signalling devices feature stainless steel components for optimal efficiency in diverse environmental conditions.
- Designed with aluminium levers and corrosion-resistant plastic push-button parts for extended service life, even in highly corrosive atmospheres, with an IP66 protection rating.

SIGNALLING

CCA-02E-SL



- CCA-02E-SL traffic light system is suitable for regulating traffic in chemically aggressive industrial environments or potentially explosive areas classified as Zone 1, 2, 21, or 22.
- Benefits of the CCA-02E-SL system include lower maintenance costs.
- Provides better visibility in critical conditions due to LED lamps.
- Ensures better reliability with continuous light guaranteed even if one LED fails, and eliminates any “phantom” effect.

ETS60



- ETS60 series sirens are recommended for use as signalling bells and alarms in areas with potentially explosive atmospheres, such as chemical plants, refineries, pumping plants, dip plants, silos, and wheat conveyors.
- Ideal for noisy environments due to their high acoustic power.

MSU



- MSU, the new series LED signalling lighting equipment, is designed for use in hazardous areas to indicate dangers and meet communication needs, replacing acoustic signals.
- It consists of a multi-unit device with a metal sheet base that can be fixed on walls or poles, featuring the EVML-50/G signalling lighting equipment and an 'Ex e' aluminum junction box SA series.
- The EVML-50/G LED signalling lighting equipment is available with globes in various colors: blue, red, green, amber, and clear.

XLFE-MIA, XLFE-MIC



- XLFE-MIA and XLFE-MIC series are designed for Zone 1 with an 'Ex db' optical source, meeting ICAO annex 14 standards.
- XLFE-MIA features a flashing white light exceeding 20,000 candles by day and 2,000 by night, compliant with medium-intensity type A aviation obstruction lights (FAA L-865).
- XLFE-MIC provides a fixed red light with an intensity exceeding 2,000 candles, meeting medium-intensity type C standards (FAA L-864).
- Both series prevent optical errors typical of glass globes and feature lamp bodies that act as heat sinks, eliminating the need for resin-coated optics that degrade over time.

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Aberdeen 01224 701870 AB23 8JW	Castleford 01924 227972 WF6 1TN	Exeter 01392 346306 EX2 8PN	Kendal 01539 742858 LA9 6LZ	Northampton 01604 752100 NN5 7JT	Stockton 01642 260858 TS18 2RJ
Ballymena 028 2563 6758 BT42 3HB	Chichester 01243 756978 PO19 8ET	Gateshead 0191 482 8718 NE11 0JY	Kingston 020 3917 7080 KT2 5BQ	Nottingham 0115 957 8898 NG2 3JJ	Stornoway 01851 708938 HS1 2SE
Barnsley 01226 705928 S70 3PB	Christchurch 01425 282908 BH23 4FL	Glasgow 0141 553 0148 G4 0ED	Leeds 0113 385 5838 LS11 0EY	Nottingham North 0115 684 2181 NG7 7NW	Sunderland 0191 515 4568 SR4 6SN
Basingstoke 01256 300198 RG22 4AY	Colchester 01206 879494 CO4 9XP	Grantham 01476 513518 NG31 7SA	Leeds East 0113 236 5948 LS9 0SG	Perth 01738 503130 PH1 3TW	Sutton 0208 6419508 SM3 9PF
Belfast East 028 9070 7928 BT5 6QR	Coleraine 028 7032 2618 BT52 2DF	Gravesend 01474 531098 DA11 8HB	Leicester 0116 268 9460 LE4 3EH	Peterborough 01733 902490 PE1 5UX	Swindon 01793 838928 SN3 4JG
Belfast North 028 9078 2098 BT3 9BW	Coventry 024 7638 9600 CV7 9DN	Grimsby 01472 803718 DN31 2UJ	Lincoln 01522 508198 LN6 3RT	Poole 01202 307378 BH12 3PG	Trafford Park 0161 868 1400 M17 1PZ
Bellshill 01698 277518 ML4 3NP	Craigavon 028 3836 7668 BT63 5YX	Guernsey 01481 201718 GY2 4LH	Lisburn 028 9260 6758 BT27 5EW	Preston 01772 272758 PR1 1NU	Tunbridge Wells 01892 556958 TN2 3EH
Berwick 01289 541990 TD15 2XF	Crayford 01322 625898 DA1 4AL	Halifax 01422 397508 HX3 9HG	Livingston 01506 448858 EH54 5FD	Redditch 01527 830600 B98 0GZ	Tyne Tunnel 0191 293 0588 NE29 7XJ
Birkenhead 0151 666 7358 CH41 5HU	Croydon 020 8253 0018 CR0 4YN	Harlow 01279 976250 CM20 2TL	Lewisham 020 8176 6255 SE12 0TX	Redhill 01737 859918 RH1 2LH	Wakefield 01924 666589 WF1 1DZ
Birmingham 0121 327 6161 B24 8HZ	Cumbernauld 01236 746278 G68 0LW	Hastings 01424 462448 TN35 4PP	London City 020 7537 6528 E3 2JE	Ripon 01765 643948 HG4 1AJ	Warrington 01925 578438 WA2 8NT
Blackpool 01253 832618 FY4 5FN	Dagenham 020 3823 4354 RM10 8PN	Hounslow 020 8814 3058 TW3 3LL	London North 020 8370 2018 N11 1JL	Rotherham 01709 857128 S60 1EW	Watford 01923 606349 WD24 4PP
Bodmin 01208 262258 PL31 1FF	Darlington 01325 348668 DL1 4WF	Hull 01482 971558 HU3 4XT	Luton 01582 542300 LU1 3XL	Rustington 01903 858928 BN16 3HQ	Weymouth 01305 752848 DT4 9TJ
Bracknell 01344 865758 RG12 1RW	Derby 01332 253748 DE21 4BJ	Inverness 01463 701128 IV1 1SY	Lymington 01425 282902 SO41 9BB	Selby 01757 244888 YO8 8LZ	Winchester 01962 826038 SO23 7RX
Bradford 01274 386808 BD4 7NE	Doncaster 01302 308708 DN2 4LT	Isle of Man 01624 675555 IM4 2AF	Manchester Central 0161 272 5628 M12 6AE	Sheffield East 0114 263 7528 S9 5FD	Yeovil 01935 403288 BA20 2SU
Brighton 01273 426508 BN3 5RY	Dundee 01382 883418 DD2 3NU	Isle of Wight 01983 828918 PO30 5GY	Mansfield 01623 664928 NG18 5DN	Sheffield North 0114 232 7068 S6 1PD	York 01904 236501 YO30 4UU
Bristol 0117 332 8321 BS3 4JQ	Durham 0191 378 7888 DH7 8XQ	Jersey 5 Oaks 01534 721414 JE2 7XQ	Morecambe 01524 590688 LA3 3BN	Southport 01704 331695 PR9 7RL	
Burnley 01282 688078 BB11 4AJ	Elgin 01343 562448 IV30 6AG	Jersey West 01534 872242 JE3 7AZ	Newbury 01635 277588 RG14 5PF	Stockport 0161 4943708 SK6 2RF	

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