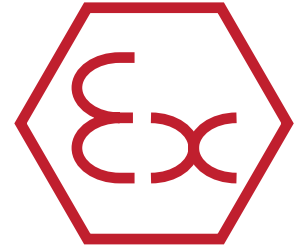
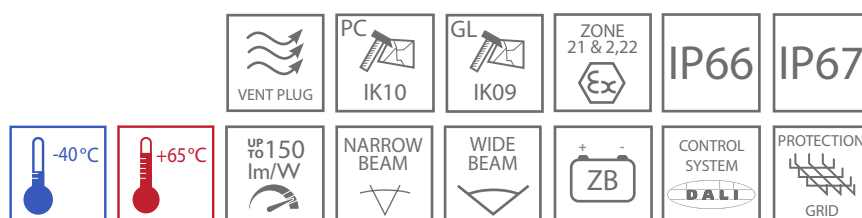


ZONE 21 & 2,22



EXL450LED





EX MARKING:

II 3G Ex ec IIC T6...T4 Gc
II 2D Ex tb IIC T80°C...T105°C Db

CERTIFICATES:

OBAC 22 ATEX 0349X

EXEMPLARY APPLICATIONS



REFINERIES



OFFSHORE

CHEMICAL
PLANTSCHEMICAL
WAREHOUSES

Explosionproof floodlight with **LED** modules with very high luminous flux. Designed to be used in the zones **21 & 2,22** of the explosion hazard of gases, vapors and mists of flammable liquids with air, as well as of flammable dusts and fibers.

The housing is made of anodized aluminum. The diffuser can be made of glass or polycarbonate. There is a possibility to choose one out of four available optics.

Optional version compatible with central battery **ZB** and **DA** with DALI protocol. Additional accessories as protection grid **PRG** or vent plugs **VENT** can be installed optionally.

FEATURES

MECHANICAL PARAMETERS

	housing	anodized aluminum
	diffuser	hartened glass, polycarbonate
	ingress protection	IP66, IP67
	protection class	I
	shock resistance	GL: IK09 PC: IK10
	mounting	on the bracket
	mounting accessories	check: <i>mountings</i>
	optional accessories	protection grid, vent plugs
	wires between the fitting modules	high temperature resistant silicone wires

WORK PARAMETERS

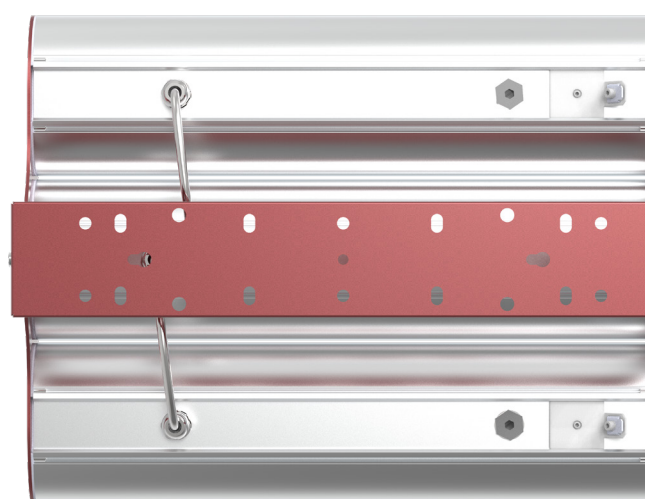
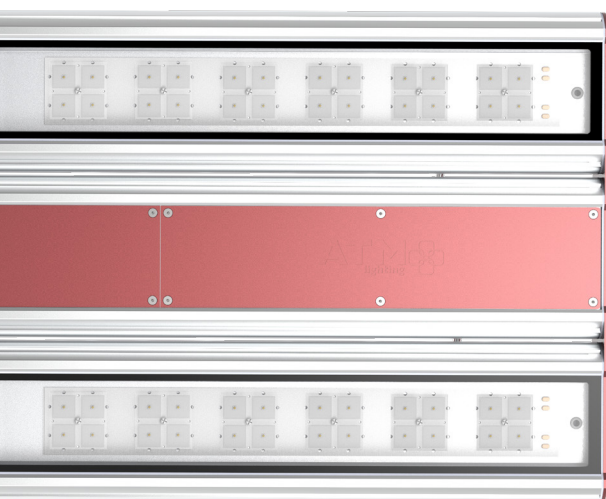
	ambient temperature	-40°C up to +65°C check: <i>types comparison</i>
	lifetime	>50.000h L ₈₀ B ₁₀ >70.000h L ₇₀ B ₁₀

ELECTRICAL PARAMETERS

2,5 mm ² 6,0 mm ² - <i>optionally</i>	connection terminals	
100-277 V, 50-60 Hz voltage ± 10%	input voltage	24E 
230-305 V, 50-60 Hz + 230-431 V, 0 Hz voltage ± 10%	input voltage	35E 
intrinsically safe LED modules	light source	
>0,98	power factor	
Ø20 Ø25	cable inlets	
24E: L-N 6kV, L-PE 10kV 35E: L-N 4kV, L-PE 6kV	overvoltage protection	

PHOTOMETRICAL PARAMETERS

>70 >80 - <i>optionally</i>	CRI	
4000K 6500K - <i>optionally</i>	colour temperature	
SVM < 0,0016 acc. with IEC TR 61547-1:2020	light pulsation	
PstLM < 0,187 acc. with IEC TR 61547-1:2020	flicker indicator	



TYPES COMPARISON

NB OPTICS (NARROW BEAM):

TYPE	LUMINOUS FLUX [lm]	POWER CONSUM. [W]	EFFICIENCY [lm/W]	MIN. AMB. TEMP.	MAX. AMB. TEMPERATURE			TEMP. CLASS / MAX. SURFACE TEMPERATURE
					24E	35E	PC diffuser	
EXL450LED-EX2-1	15200	103	148	-40°C	+ 65°C	+60°C	+50°C	T6/T80 °C
EXL450LED-EX2-2	21500	153	141	-40°C	+ 50°C	+45°C	+45°C	T5/T80 °C
EXL450LED-EX3-1	22800	155	147	-40°C	+ 65°C	+60°C	+50°C	T5/T80 °C
EXL450LED-EX3-2	32200	238	135	-40°C	+ 50°C	+45°C	+45°C	T4/T105 °C
EXL450LED-EX4-1	30300	207	146	-40°C	+ 55°C	+50°C	+50°C	T5/T80 °C

MB OPTICS (MEDIUM BEAM):

TYPE	LUMINOUS FLUX [lm]	POWER CONSUM. [W]	EFFICIENCY [lm/W]	MIN. AMB. TEMP.	MAX. AMB. TEMPERATURE			TEMP. CLASS / MAX. SURFACE TEMPERATURE
					24E	35E	PC diffuser	
EXL450LED-EX2-1	16000	103	155	-40°C	+ 65°C	+60°C	+50°C	T6/T80 °C
EXL450LED-EX2-2	23000	153	150	-40°C	+ 50°C	+45°C	+45°C	T5/T80 °C
EXL450LED-EX3-1	24000	155	155	-40°C	+ 65°C	+60°C	+50°C	T5/T80 °C
EXL450LED-EX3-2	34000	238	143	-40°C	+ 50°C	+45°C	+45°C	T4/T105 °C
EXL450LED-EX4-1	31500	207	152	-40°C	+ 55°C	+50°C	+50°C	T5/T80 °C

WB OPTICS (WIDE BEAM):

TYPE	LUMINOUS FLUX [lm]	POWER CONSUM. [W]	EFFICIENCY [lm/W]	MIN. AMB. TEMP.	MAX. AMB. TEMPERATURE			TEMP. CLASS / MAX. SURFACE TEMPERATURE
					24E	35E	PC diffuser	
EXL450LED-EX2-1	15250	103	148	-40°C	+ 65°C	+60°C	+50°C	T6/T80 °C
EXL450LED-EX2-2	21500	153	141	-40°C	+ 50°C	+45°C	+45°C	T5/T80 °C
EXL450LED-EX3-1	23500	155	152	-40°C	+ 65°C	+60°C	+50°C	T5/T80 °C
EXL450LED-EX3-2	33000	238	139	-40°C	+ 50°C	+45°C	+45°C	T4/T105 °C
EXL450LED-EX4-1	30500	207	147	-40°C	+ 55°C	+50°C	+50°C	T5/T80 °C

OB OPTICS (OVAL BEAM):

TYPE	LUMINOUS FLUX [lm]	POWER CONSUM. [W]	EFFICIENCY [lm/W]	MIN. AMB. TEMP.	MAX. AMB. TEMPERATURE			TEMP. CLASS / MAX. SURFACE TEMPERATURE
					24E	35E	PC diffuser	
EXL450LED-EX2-1	15100	103	140	-40°C	+ 65°C	+60°C	+50°C	T6/T80 °C
EXL450LED-EX2-2	21500	153	141	-40°C	+ 50°C	+45°C	+45°C	T5/T80 °C
EXL450LED-EX3-1	22600	155	146	-40°C	+ 65°C	+60°C	+50°C	T5/T80 °C
EXL450LED-EX3-2	32200	238	135	-40°C	+ 50°C	+45°C	+45°C	T4/T105 °C
EXL450LED-EX4-1	30200	207	146	-40°C	+ 55°C	+50°C	+50°C	T5/T80 °C

ASY OPTICS (ASYMETRICAL BEAM):

TYPE	LUMINOUS FLUX [lm]	POWER CONSUM. [W]	EFFICIENCY [lm/W]	MIN. AMB. TEMP.	MAX. AMB. TEMPERATURE			TEMP. CLASS / MAX. SURFACE TEMPERATURE
					24E	35E	PC diffuser	
EXL450LED-EX2-1	14390	103	140	-40°C	+ 65°C	+60°C	+50°C	T6/T80 °C
EXL450LED-EX2-2	20680	153	135	-40°C	+ 50°C	+45°C	+45°C	T5/T80 °C
EXL450LED-EX3-1	21580	155	139	-40°C	+ 65°C	+60°C	+50°C	T5/T80 °C
EXL450LED-EX3-2	30570	238	128	-40°C	+ 50°C	+45°C	+45°C	T4/T105 °C
EXL450LED-EX4-1	28320	207	137	-40°C	+ 55°C	+50°C	+50°C	T5/T80 °C



Luminous flux is indicated for LED modules with CRI 70. The luminous flux decreases to 9% of its nominal value with modules CRI80.

Luminous flux tolerance +/- 10%

Power tolerance +/- 5%

The parameters given in the following data sheet has been determined for the temperature Ta=25°C.

Luminous flux, light intensity distribution and efficiency has been tested on the basis of the standards EN ISO 17025:2018-02, norm series EN13032 and LM-79.

The actual data and General Warranty Conditions are available on our website www.atmlighting.pl

MAXIMAL QUANTITY OF FITTINGS THAT MAY BE CONNECTED ACCORDING TO THE USED CIRCUIT BRAKER

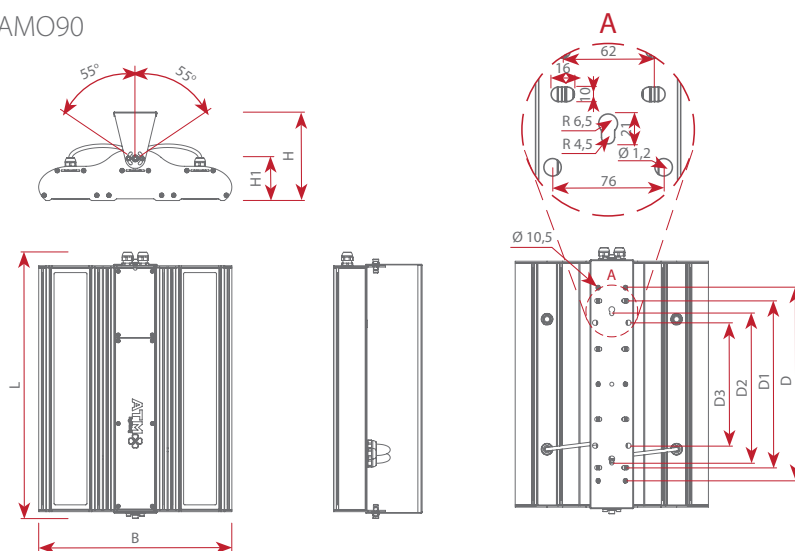
Version 35E

TYPE	B16	C16
EXL450LED-EX2-1	6	11
EXL450LED-EX2-2	3	6
EXL450LED-EX3-1	3	6
EXL450LED-EX3-2	4	7
EXL450LED-EX4-1	4	7

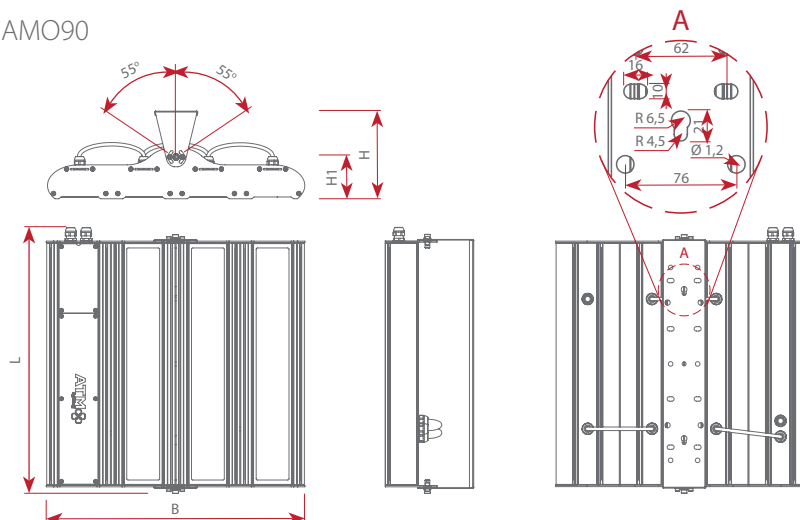
Above values are indicated for the power supply voltage 230 VAC.

EX2 VERSION

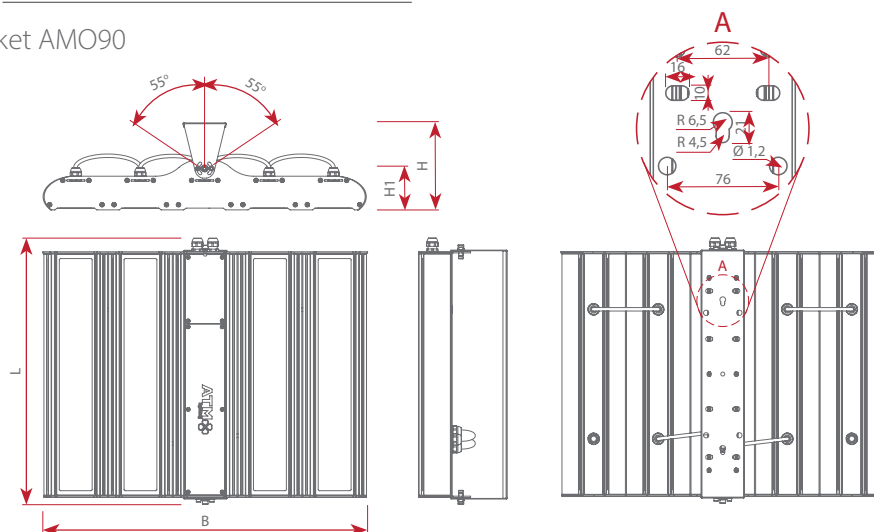
standard bracket AMO90

**EX3 VERSION**

standard bracket AMO90

**EX4 VERSION**

standard bracket AMO90

**DIMENSIONS**

TYPE	L	B	H	H1	D	D1	D2	D3	Weight [kg]
EXL450LED-EX2	606	435	202	97	440	380	340	280	10
EXL450LED-EX3	606	585	202	97	440	380	340	280	13
EXL450LED-EX4	606	735	202	97	440	380	340	280	16

OPTIONAL VERSIONS



Central battery:

Optional version adapted to central battery

ZB

For version adapted central battery (ZB) standard luminous flux is equal to nominal (100%).

MAXIMAL QUANTITY OF FITTINGS THAT MAY BE CONNECTED ACCORDING TO THE USED CIRCUIT BRAKER

Power supply 35E - 230-305V, 50-60Hz lub 230-431V, 0Hz

TYPE	B16	C16
EXL450LED-EX2-1	3	6
EXL450LED-EX2-2	3	6
EXL450LED-EX3-1	3	6
EXL450LED-EX3-2	2	4
EXL450LED-EX4-1	2	4

3F

3-phase power supply:

Optional version adapted to 3-phase power supply

3F



DALI driver:

Optional version equipped with integrated driver with DALI protocol
Available for 35E power supply (230-305V, 50-60 Hz lub 230-431V, 0Hz)

DA

PROTECTION

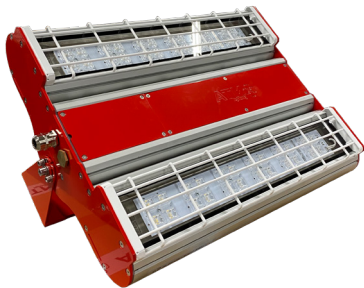
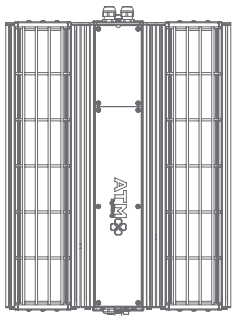


GRID

Additional equipment:

Additional protection grid protecting from unexpected damages

PRG



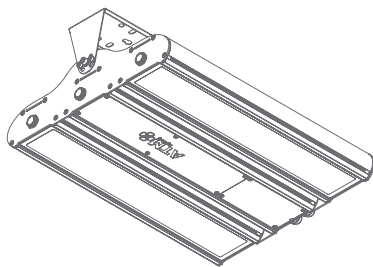
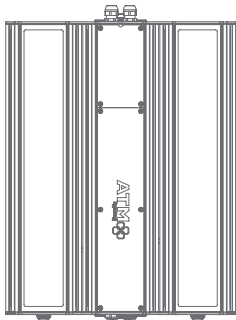


VENT PLUG

Additional equipment:

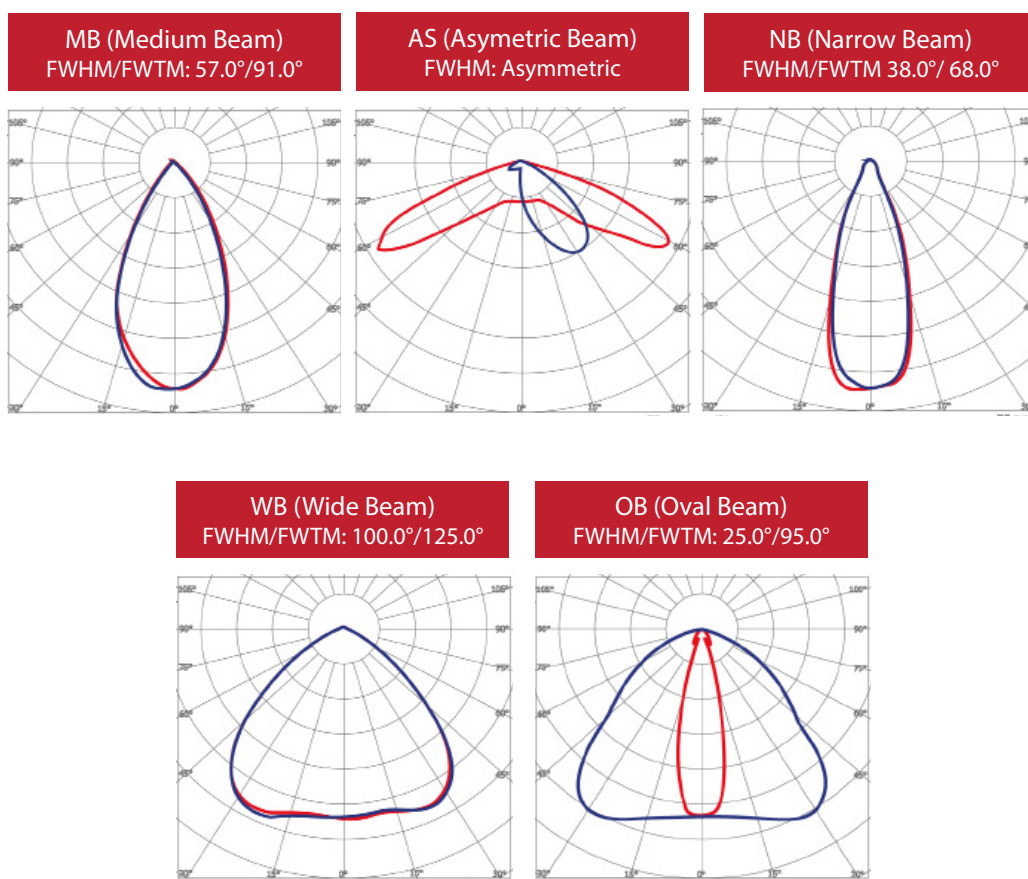
Additional ventilated plug for every module of the lighting fixture

VENT



The ventilated plug prevents from the condensation of water vapor inside the fitting. This version is recommended for external use of the fitting.

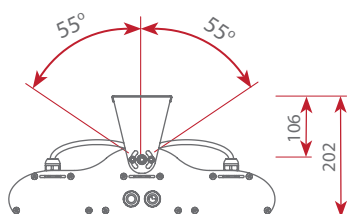
DISTRIBUTION CURVES



MOUNTINGS

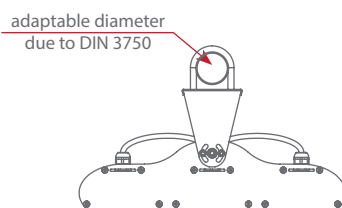
AMO90

standard



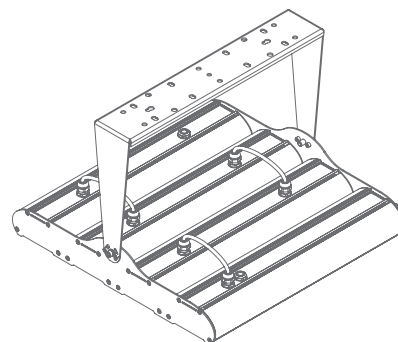
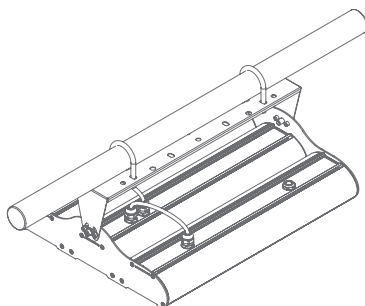
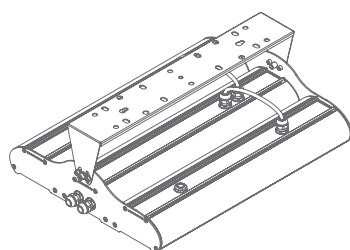
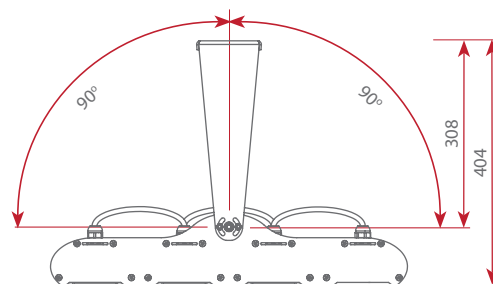
AMO360

optional



AMO180

optional



CONFIGURATIONS

E X L 4 5 0 L E D - E X - - - E - - - - ALU - - - - -	
group explosionproof light fittings	2 1 24 30 10 M 20
type type 450	3 2 35 50 20 P 25
light source LED modules	4 70
LED module type	GL NB AMO90 DA PRG
LED module quantity	PC MB AMO180 3F VENT
driving current	WB AMO360 ZB
power supply 24E - 100-277V, 50-60Hz 35E - 230-305V, 50-60Hz lub 230-431V, 0Hz	OB ASY
wiring 30 - single 3-pole terminal → 3 50 - single 5-pole terminal → 5 only for DA or 3F version 70 - single 7-pole terminal → 7	
cable inlets - quantity 10 - one cable inlet on the side of the housing → 1 0 20 - two cable inlets on the side of the housing → 2 0	
cable inlets - material M - metal P - plastic	
cable inlets - size 20 - Ø20 25 - Ø25	
housing material ALU - anodized aluminum	
diffuser material GL - tempered glass PC - UV stabilised polycarbonate	
optics NB - narrow beam MB - medium beam WB - wide beam OB - oval beam ASY - asimetric beam	
mountings check: <i>mountings</i>	
additional options DA - version equipped with integrated power supply unit with DALI interface. Available only with 35E power supply version 3F - version adapted to work in a three-phase network, equipped with connectors 5x2,5mm ² (L1, L2, L3, PE, N) ZB - version designed to work with a central battery. Available only with 35E power supply version	
additional accessories PRG - version equipped with protection grid on the diffuser VENT - version equipped with explosionproof ventilated plugs (recommended in external use of the fitting)	



Optional DA version of the light fitting is equipped with an integrated power supply unit with DALI interface, which allows to control parameters of lighting - depending on data from motion sensors or BIM settings. Properly configured lighting control system can significantly reduce costs of energy and improve the ergonomics of users.

DOWNLOADS

LDT



CE

ATEX