

EXPLOSIONPROOF LIGHT FITTINGS

ZONE 21 & 2,22



EXL450LED



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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.



Versions compatible **ZB** and **DA** with DALI protocol can be chosen optionally.
Additional accessories as protection grid **PGR** 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

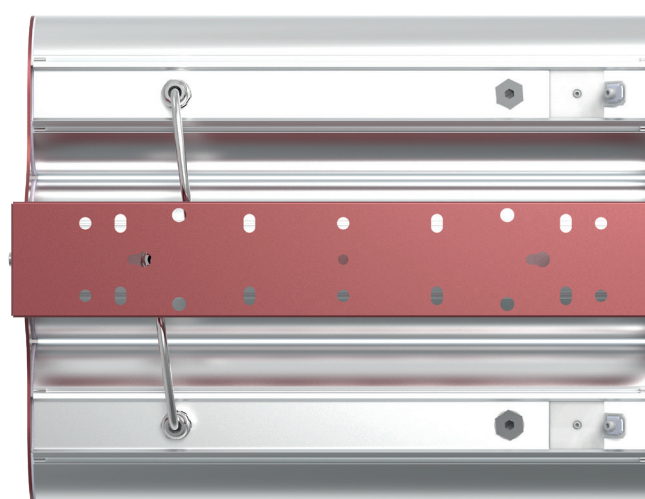
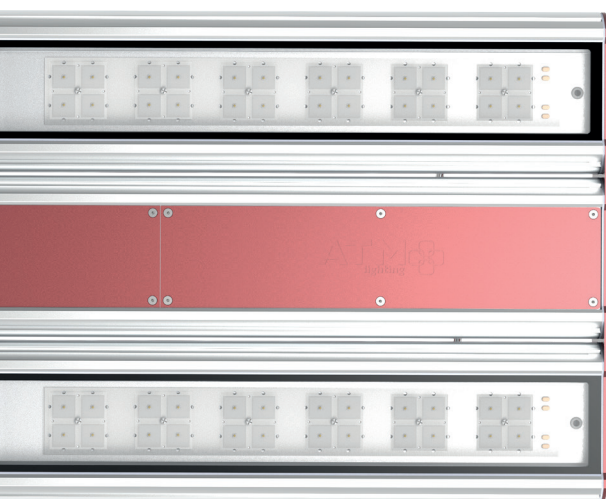
	ambient temperature	-40°C up to +65°C check: <i>types comparsion</i>
	lifetime	>50.000h L ₈₀ B ₁₀ >70.000h L ₇₀ B ₁₀

ELECTRICAL PARAMETERS

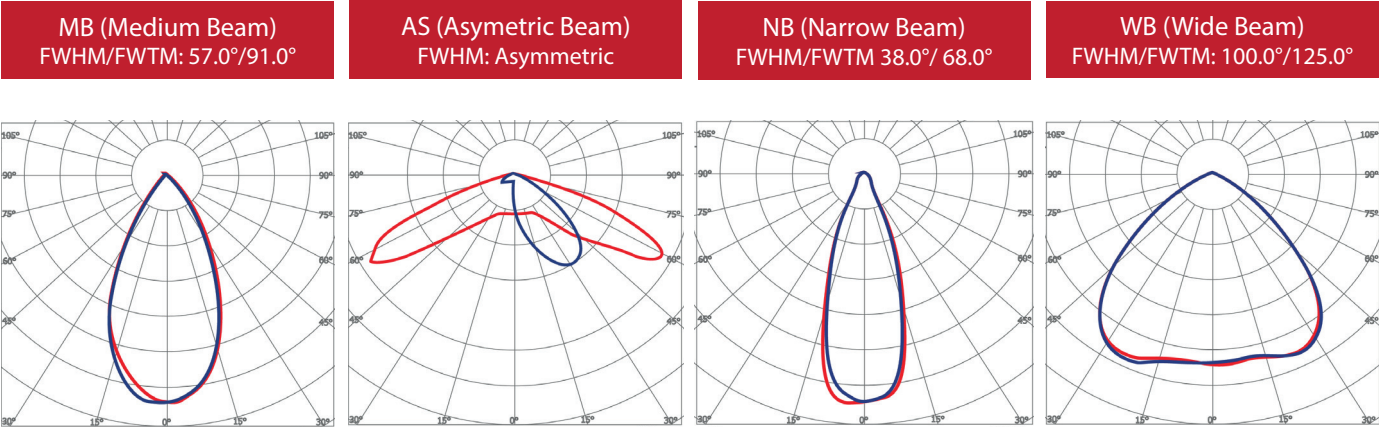
2,5 mm ² 4,0 mm ² - <i>optionally</i>	connection terminals	
230-277 V, 50-60 Hz voltage ± 10%	input voltage 24E	
230-305 V, 50-60 Hz + 230-431 V, 0 Hz voltage ± 10%	input voltage 25E	
intrinsically safe LED modules	light source	
>0,98	power factor	
Ø20 Ø25	cable inlets	
24E: L-N 6kV, L-PE 10kV 25E: L-N 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	



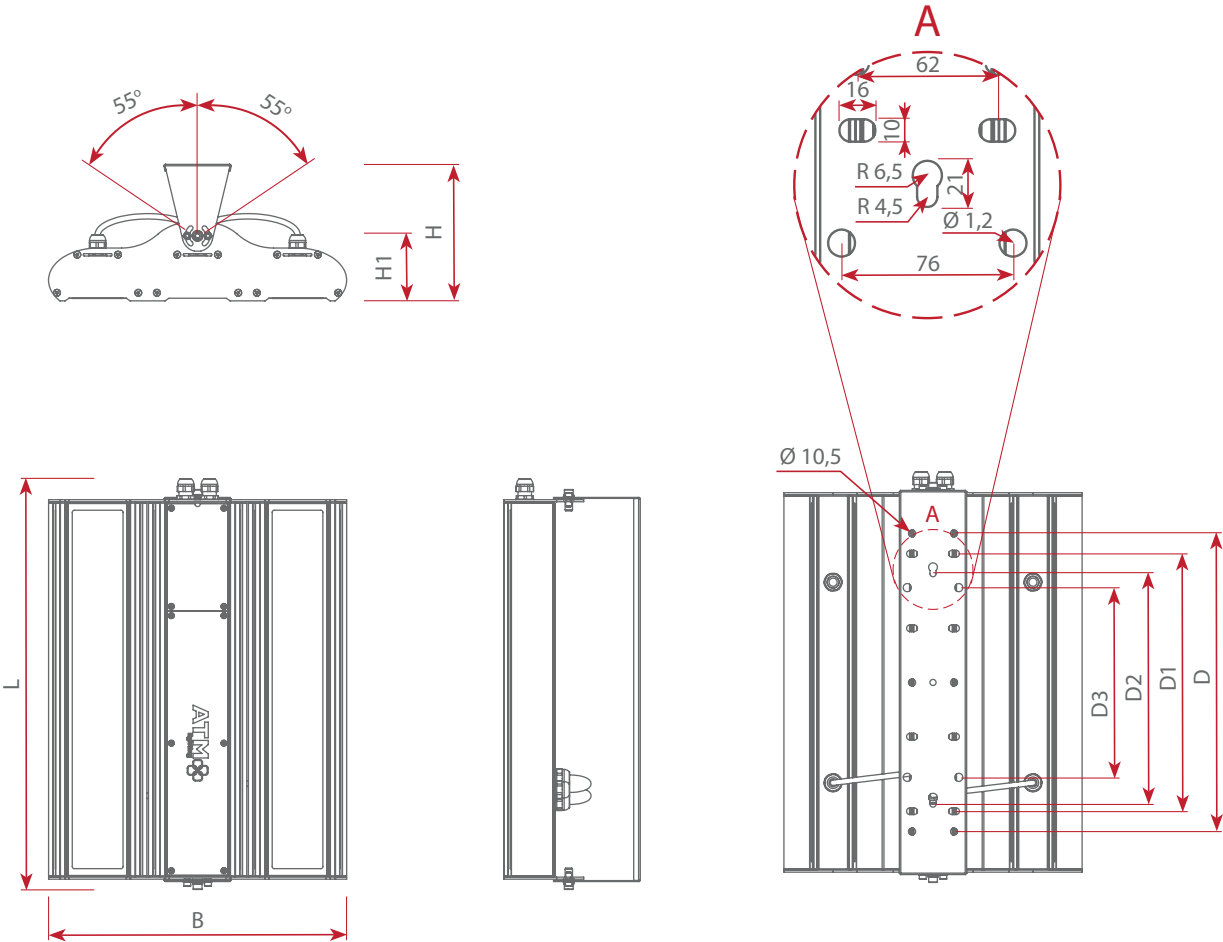
PHOTOMETRY



DIMENSIONS

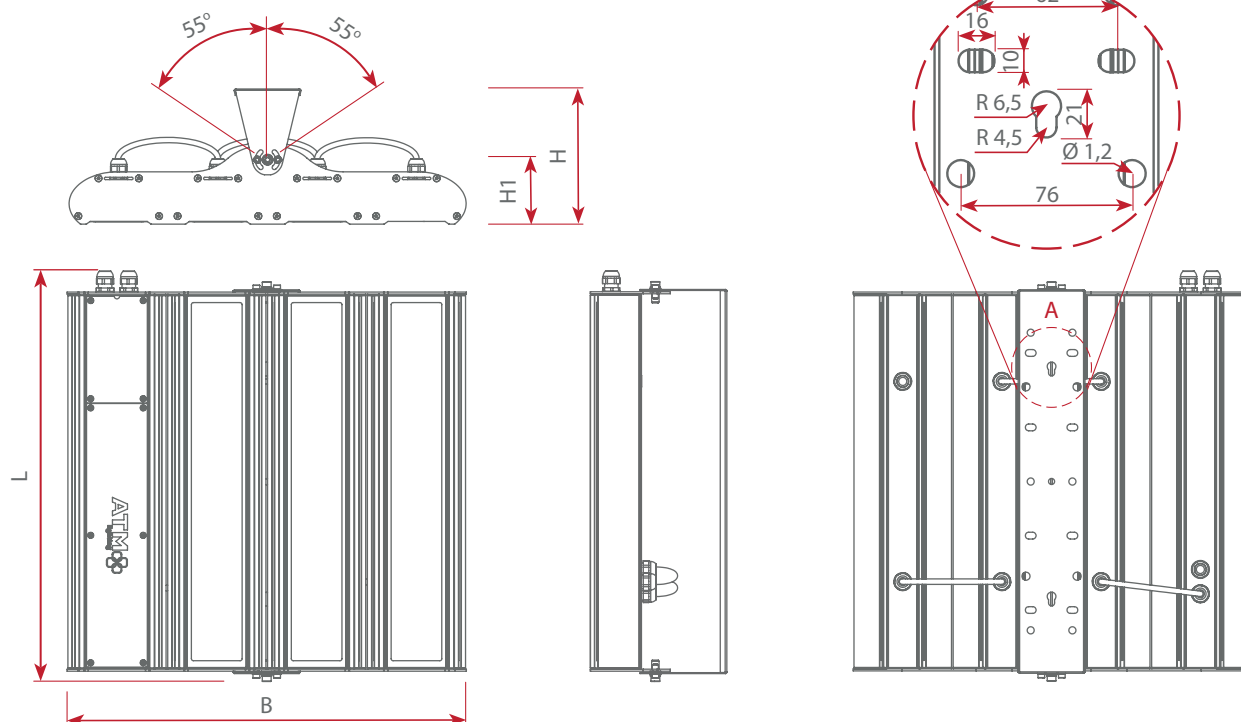
VERSION EX2

standard mounting AMO90

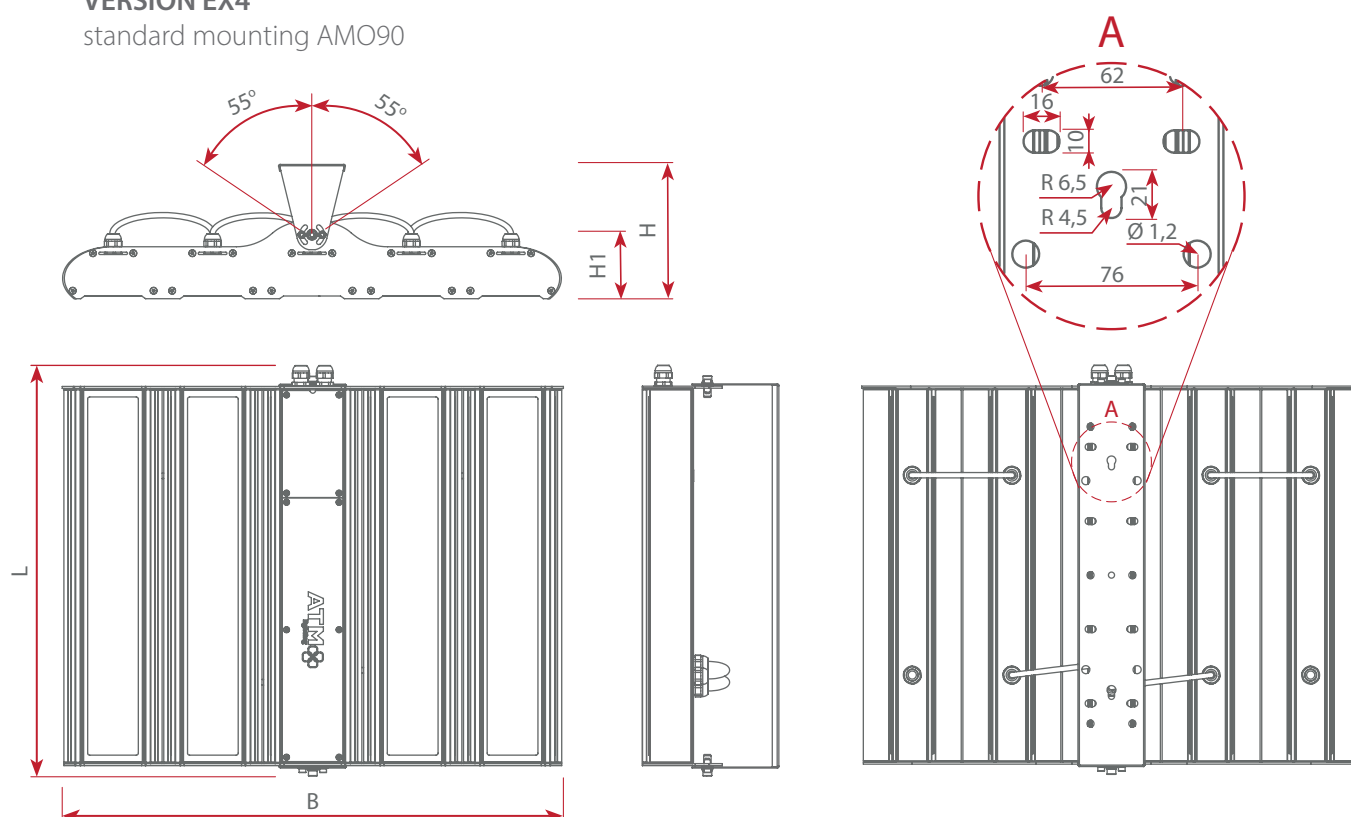


VERSION EX3

standard mounting AMO90

**VERSION EX4**

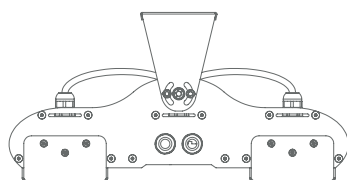
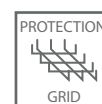
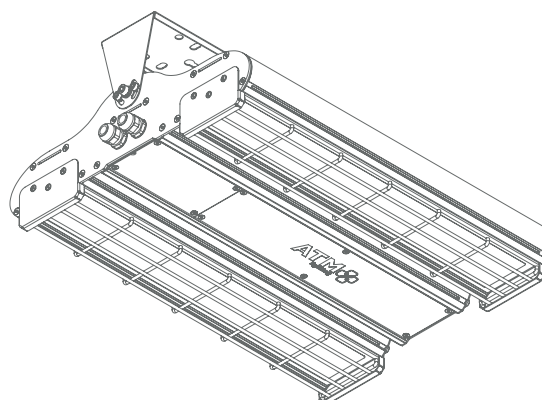
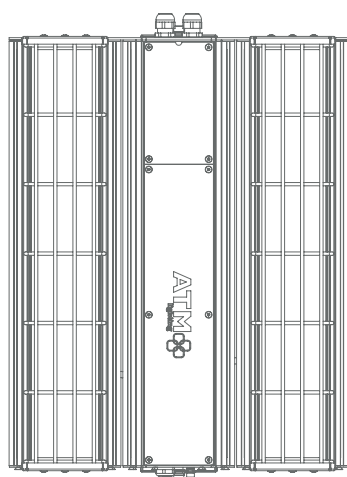
standard mounting AMO90

**DIMENSIONS COMPARISON**

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 ACCESSORIES

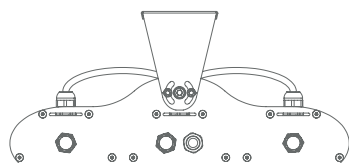
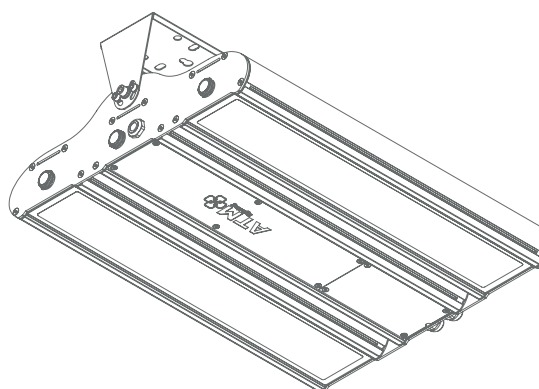
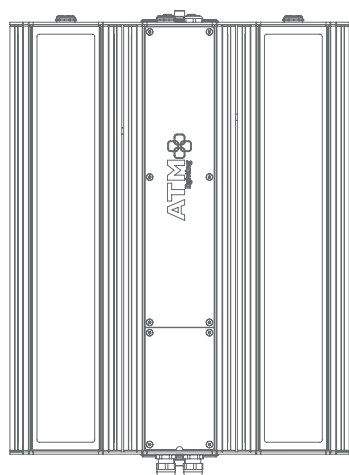
OPTIONAL VERSION WITH PROTECTION GRID (PRG)



ADDITIONAL INFORMATION:

Light fitting equipped with additional grid which protects from the accidental damages.

OPTIONAL VERSION WITH VENTILATED PLUGS DEDICATED TO THE EXPLOSIONPROOF ZONES (VENT)



ADDITIONAL INFORMATION:

The light fitting is equipped with ventilated plugs (one for each chamber). The ventilated plug prevents from the condensation of water vapor inside the fitting. This version is recommended for external use of the fitting.

TYPES COMPARISON

TYPE OF THE FITTING	LUMINOUS FLUX* [lm]	POWER CONSUMPTION [W]	EFFICIENCY [lm/W]	AMBIENT TEMPERATURE [°C]	TEMP. CLASS/ MAX. SURFACE TEMPERATURE
EXL450LED-EX2-1	16000	101	155	- 40°C ÷ +60 (25E) / +65 (24E)	T6/T80 °C
EXL450LED-EX2-2	23000	149	153	- 40°C ÷ +55 (25E) / +60 (24E)	T5/T80 °C
EXL450LED-EX3-1	24000	153	157	- 40°C ÷ +60 (25E) / +65 (24E)	T5/T80 °C
EXL450LED-EX3-2	34000	236	144	- 40°C ÷ +45 (25E) / +50 (24E)	T4/T105 °C
EXL450LED-EX4-1	31500	199	157	- 40°C ÷ +50 (25E) / +55 (24E)	T5/T80 °C

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

The luminous flux for the version ZB is 30% lower than nominal.

Luminous flux tolerance +/- 10%

Power tolerance +/- 10%

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 17025:2005, norm series EN13032 and LM-79.



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

Version 25E

TYPE OF THE FITTING	PSU B16	PSU 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

Version 24E

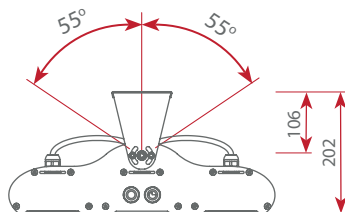
TYPE OF THE FITTING	PSU B16	PSU C16
EXL450LED-EX2-1	7	11
EXL450LED-EX2-2	6	6
EXL450LED-EX3-1	6	6
EXL450LED-EX3-2	7	4
EXL450LED-EX4-1	3	3

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

MOUNTINGS

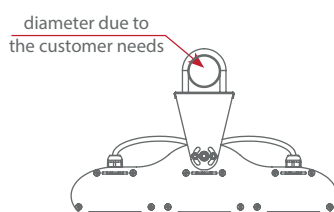
AMO90

standard



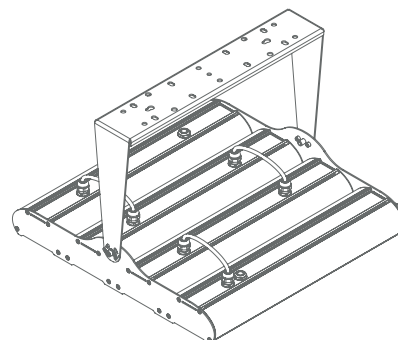
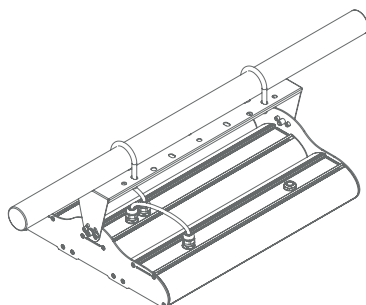
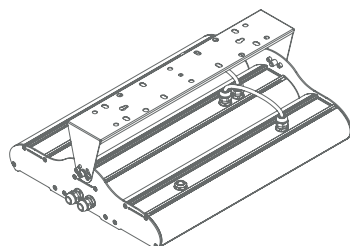
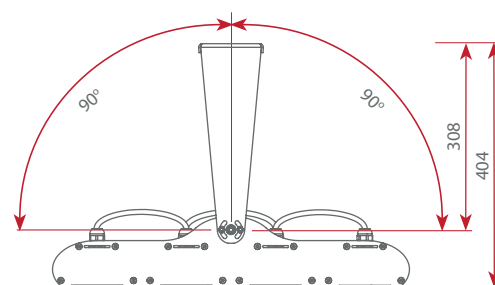
AMO360

optional



AMO180

optional



CONFIGURATIONS

E	X	L	4	5	0	L	E	D	-	E	X	-	-	-	2	E	-	-	-	-	-	ALU	-	-	-	-	-	-	-	-	-
										2	1	4	30	10	M	20											GL	NB	AMO90	DA	PRG
										3	2	5	50	20	P	25											PC	MB	AMO180	3F	VENT
										4			70															WB	AMO360	ZB	
																												ASY			

group

explosionproof light fittings

type

type 450

light source

LED modules

LED module type

LED module quantity

driving current

power supply

24E - 230-277V, 50-60Hz

25E - 230-305V, 50-60Hz lub 230-431V, 0Hz

wiring

30 - single 3-pole terminal →

50 - single 5-pole terminal →

70 - single 7-pole termianl →

cable inlets - quantity

10 - one cable inlet on the side of the housing →

20 - two cable inlets on the side of the housing →

cable inlets - material

M - metal

P - plastic

cable inlets - size

20 - Ø20

25 - Ø25

housing material

ALU - anodized aluminum

diffuser material

GL - hartened glass

PC - UV stabilised polycarbonate

optics

NB - narrow beam

MB - medium beam

WB - wide beam

ASY - asimetric beam

mountings

check: *mountings*

additional options

DA - version equipped with integrated power supply unit with DALI interface. Available only with 25E power supply version

3F - version adapted to work in a three-phase network, equipped with connectors 5x2,5mm² (L1, L2, L3, PE, N)

ZB - version designed to work with a central battery. Available only with 25E power supply version

additional accessories

PGR - version equipped with protection grid on the diffuser

VENT - version equipped with explosionproof ventilated plugs (recommended in external use of the fitting)

ADDITIONAL INFORMATION



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.

