CEAG Products Explosion protected floodlights

CROUSE-HINDS SERIES

PXLED - Power Floodlight Series for Hazardous Areas Explosion-protected LED floodlight series for Zone 1, 2, 21 and 22





Ex-Floodlight PXLED

(Ex-Zone 1, 2, 21 and 22)

Lighting under harsh conditions

The new modular LED floodlight series PXLED is suited for nearly every kind of lighting task in hazardous areas, including applications in On- and Offshore, heavy industrial, chemical, petrochemical, oil and gas, pharmaceuticals, shipyards, dockyards, power generation, paper mills and wastewater treatment indoor and outdoor with potentially explosive areas under harsh conditions like vibrations, dust, moisture or corrosive atmospheres and extreme temperatures. The PXLED comes with a standard U-shaped mounting bracket for ceiling and wall mounting

Replacement of conventional light fittings up to 600 W

With a luminous flux from 5,000 Im up to 32.000 Im this floodlight series can be used to replace nearly every floodlight with conventional light sources with an equivalent power consumption from 70 W up to 600 W.

High efficient LED technology

High efficient power LED module with 110 Lumen/Watt enables up to 70 % energy-cost savings compared to conventional HID lamp.

Safety first

All PXLED multi-module floodlights from size 10L to 30L are equipped with a multichannel LED driver. This driver provides for each LED-module a separate power channel circuit. Even if one circuit fails, all other LED-modules are still working.

Modular design - just use the size you need

Thanks to the modular design of the PXLED series you can exactly choose the lumen output you need. There is no need to over/underdesign your lighting project. Six sizes are available from nominal 5.000 lm to more than 30.000 lm with a stepwide of 5000 lm.

Easy to install

A stainless steel swivel bracket with adjustable setting angle allows an easy alignment of the floodlight. A fixing screw



secures the alignment. The swivel bracket provides up to five Ø13 mm fixing holes for a safe assembly.

Different mounting accessories enable easy and safe mounting whereever required.



Together with two cable gland a large terminal compartment in Ex-e design allows cost saving through-wiring without additional terminal boxes.



The used Ex-e terminals can clamp up to 6 mm² wiring.

Internal and external PE-terminals allows nearly all cabling technique.







Features

- High efficiency: up to 110 lm/W
- Operating temperature -50 °C up to +55 °C
- Suitable for Explosion Group IIC / IIIC environment
- Broad range of light output from 5,000 lm up to 32,000 lm
- Wide and narrow beam pattern (asymmetric beam on request)
- Long lifetime
- Ex-e compartment for driver & terminal for easy installation and maintenance

Features and Product details

PXLED for Ex-Zone 1, 2, 21 and 22

Designed for long lifetime

High ambient temperatures can drive the LED chip-temperature into a not permissible range. This would reduce the life-span of the LEDs tremendously. Eaton provides an enclosure design with large cooling pipes and a innovated heat reduction



design.

Tests done under the worst test conditions have shown that the LED-chip temperature is always below critical values. The designed life span for the LED (L80) is more than 60,000 h even at +55°C ambient temperature The Eaton-LED driver is especially designed for the harsh conditions of hazardous environments. According to EN 61000-4-5 an electronic device must withstand a surge pulse of 1 kV between L- N, our LED driver is designed to withstand 4 kV between L- N and L, N - PE.



All electronic components with self-heating are over dimensioned to ensure a maximum maintenance-free period. The driver has an own Ex-certification "q" and is mounted within the Ex-e compartment.

In the very unlikely cause of an driver failure this unit can be changed separately from the floodlight.

Light distribution for various applications

Beside the various lumen output packages different light distributions can be realized with the PXLED-series.

A wide beam pattern as well as a narrow beam pattern is realized by the use of special designed lens caps for the LEDs. In addition, asymmetric light distributions are also available for special applications.

With a light transmission factor of more that 90 % we are able to offer a system efficiency of more than 110 lm/W.

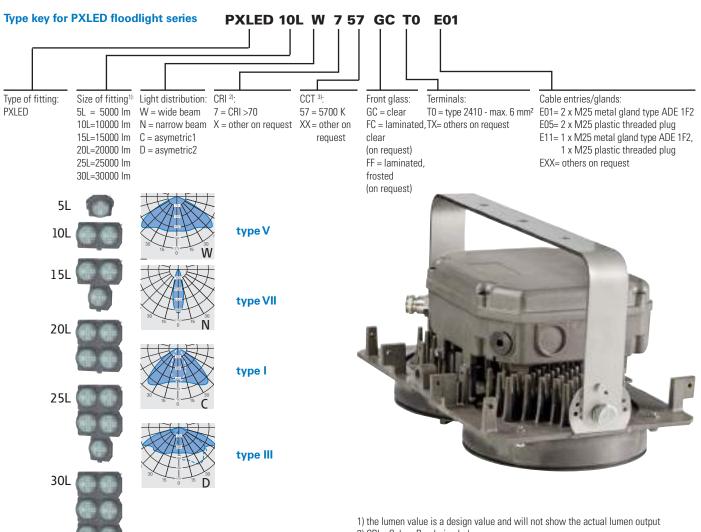
The laminated glass version with external plastic foil, either in clear or frosted version, prevents any glass splitters from falling, allowing safe use in critical application such as food & beverage, chemical and pharmaceutical Industries



wide beam lens caps



narrow beam lens caps



- 2) CRI = Colour Rendering Index
- 3) CCT= Correlated Colour Temperature

Ordering details PXLED, PXLED LV for Ex-Zone 1, 2, 21 and 22

Ordering details PXLED

	Туре	Lamp / Light illuminant distribution *	Description / Power	Cable glands	Order No
	PXLED 5L N 757 GC E01	1	LED floodlight with swivel bracket	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 110 001
	PXLED 5L N 757 GC E05	5.386 lm	49 W	2 x M25 plastic threaded plug	1 3042 110 005
	PXLED 5L W 757 GC E01	LED system wide beam	LED floodlight with swivel bracket 49 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 111 001
	PXLED 5L W 757 GC E05	5.207 lm		2 x M25 plastic threaded plug	1 3042 111 005
	PXLED 10L N 757 GC E01	2 LED systems narrow beam	LED floodlight with swivel bracket 98 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 210 001
	PXLED 10L N 757 GC E05	10.772 lm		2 x M25 plastic threaded plug	1 3042 210 005
	PXLED 10L W 757 GC E01	2 LED systems wide beam	LED floodlight with swivel bracket	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 211 001
	PXLED 10L W 757 GC E05	10.414 lm	98 W	2 x M25 plastic threaded plug	1 3042 211 005
	PXLED 15L N 757 GC E01	3 LED systems narrow beam	LED floodlight with swivel bracket 147 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 310 001
	PXLED 15L N 757 GC E05	16.158 lm		2 x M25 plastic threaded plug	1 3042 310 005
Q	PXLED 15L W 757 GC E01	3 LED systems wide beam	LED floodlight with swivel bracket 147 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 311 001
	PXLED 15L W 757 GC E05	15.621 lm		2 x M25 plastic threaded plug	1 3042 311 005
	PXLED 20L N 757 GC E01	4 LED systems narrow beam	LED floodlight with swivel bracket 196 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 410 001
	PXLED 20L N 757 GC E05	21.544 lm		2 x M25 plastic threaded plug	1 3042 410 005
••	PXLED 20L W 757 GC E01	4 LED systems wide beam	LED floodlight with swivel bracket 196 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 411 001
	PXLED 20L W 757 GC E05	20.828 lm		2 x M25 plastic threaded plug	1 3042 411 005
	PXLED 25L N 757 GC E01	5 LED systems narrow beam	LED floodlight with swivel bracket	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 510 001
	PXLED 25L N 757 GC E05	26.930 lm	245 W	2 x M25 plastic threaded plug	1 3042 510 005
	PXLED 25L W 757 GC E01	5 LED systems wide beam	LED floodlight with swivel bracket 245 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 511 001
	PXLED 25L W 757 GC E05	26.035 lm		2 x M25 plastic threaded plug	1 3042 511 005
	PXLED 30L N 757 GC E01	6 LED systems narrow beam	LED floodlight with swivel bracket 294 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 610 001
	PXLED 30L N 757 GC E05	32316 lm		2 x M25 plastic threaded plug	1 3042 610 005
	PXLED 30L W 757 GC E01	6 LED systems wide beam	LED floodlight with swivel bracket	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 611 001
	PXLED 30L W 757 GC E05	31242 lm	294 W	2 x M25 plastic threaded plug	1 3042 611 005

*) Asymmetric light distribution on request

Ordering details / dimension drawing PXLED for Ex-Zone 1, 2, 21 and 22

Ordering details PXLED LV (Low Voltage)

Туре	Lamp / illuminant	Light distribution *	Description / Power)	Cable glands	Order No
PXLED 5L W 757 GC TO E01 LV	LED system 5.000 lm	wide beam	LED floodlight with swivel bracket 49 W low voltage	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3046 111 001
PXLED 5L W 757 GC TO E05 LV	LED system 5.000 lm	wide beam	LED floodlight with swivel bracket 49 W low voltage	2 x M25 plastic screw plug	1 3046 111 005
PXLED 5L W 757 GC TO E15 LV	LED system 5.000 lm	wide beam	LED floodlight with swivel bracket 49 W low voltage	1 x M25 plastic trompet shaped cable gland, 1 x plastic blanking plug	1 3046 111 015
PXLED 5L N 757 GC TO E01 LV	LED system 5.000 lm	narrow beam	LED floodlight with swivel bracket 49 W low voltage	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3046 110 001
PXLED 5L N 757 GC TO E05 LV	LED system 5.000 lm	narrow beam	LED floodlight with swivel bracket 49 W low voltage	2 x M25 plastic screw plug	1 3046 110 005

Ordering details Accessories

	Туре	Description	PXLED	Pol	e diameter (d)	Order No.
EPine II	MH03		5L-20L	1 1/2"	47-51mm	2 3042 000 003
CEIP	MH04		25L-30L	1 1/2"	47-51mm	2 3042 000 004
	MH05	- Dela adaptari	5L-20L	2"	56-60mm	2 3042 000 005
	MH06	- Pole adapter -	25L-30L	2"	56-60mm	2 3042 000 006
	MH07		5L-20L	2 1/2"	70mm	2 3042 000 007
	MH08		25L-30L	2 1/2"	70mm	2 3042 000 008
-	WH01	- Angle adaptor -	5L-20L			2 3042 000 009
	WH02	 Angle adapter 	25L-30L			2 3042 000 010

Dimension drawing PXLED mounting accessories

Pole adaptor short MH03/05/07

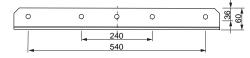
Pole adaptor long MH04/06/07

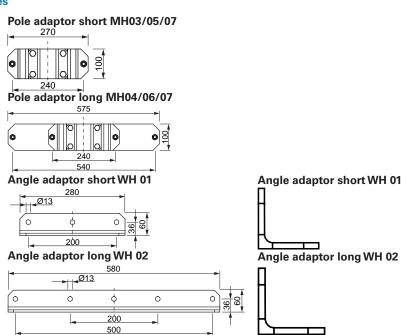


Angle adaptor short WH 01



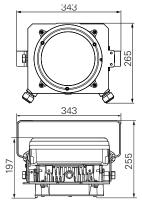
Angle adaptor long WH 02

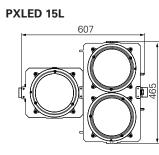




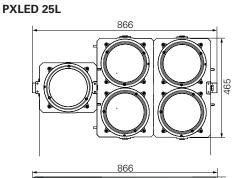
Dimension drawing

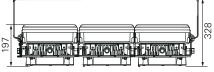
PXLED 5L



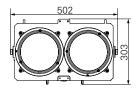


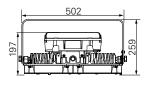


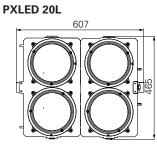


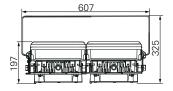


PXLED 10L

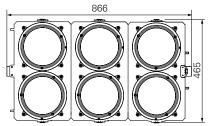


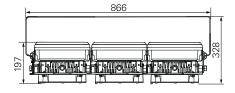






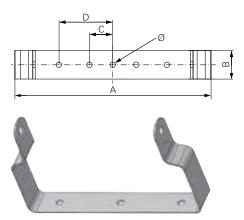
PXLED 30L





Dimensions in mm

Swivel bracket



Swivel bracket for PXLED - Dimensions							
Dimensions in mm	А	В	С	D	Ø		
PXLED 05	343	50	120	-	13		
PXLED 10	476	50	120	-	13		
PXLED 15	606	50	120	-	13		
PXLED 20	606	50	120	-	13		
PXLED 25	858	50	120	270	13		
PXLED 30	858	50	120	270	13		

Technical data, Polar curve,

PXLED for Ex-Zone 1, 2, 21 and 22

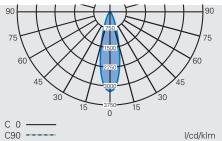
Technical data

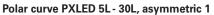
	PXLED 5L	PXLED 10L	PXLED 15L	PXLED 20L	PXLED 25L	PXLED 30L	PXLED 5L LV	
Type Examination Certificate	BVS 17 ATEX E	013 X						
IECEx Certificate of conformity	IECEx BVS 17.0	ECEx BVS 17.0004 X						
Marking accd. 2014/34/EU	🐼 II 2 G Ex db	∂ II 2 G Ex db eb op is q IIC T4 Gb/ 🐵 II 2 D Ex tb op is IIIC T100°C Db						
Marking accd. to IECEx	Ex db eb op is c	IIC T4 Gb/ Ex tb o	p is IIIC T100°C Db)				
Salt water resistance test acc. to EN 60068-2-5	52 Level IV							
Vibration test acc. to EN 60068-2-6	4,26 G							
Certification accd. to TR CU 012/2011 EAC 1	⁾ RU C-DE.AA87.	B.00780 (-55 °C ce	ertified)					
IK-class according to IEC/EN 62262	IK 10 ≙ 20 J							
Permissible ambient temperature	-50 °C up to +5	5 °C						
LED lifetime	L90 / L80 >100,	000 h @ 25 °C / 6	0,000 h @ +55 °C					
Driver lifetime	C10 >100,000 h	@ 25 °C / 60,000	∣h@+55 °C					
Rated voltage	110 - 277 V AC	/ 127 - 270 V DC					24 - 48 V AC/DC	
Frequency	0/50 - 60 Hz							
Rated current	0.24 A ²)	0.48 A ²)	0.72 A ²)	0.96 A ²)	1.20 A ²)	1.44 A ²)	1.1 A ³)	
Inrush current	20 A/50 µs	20 A/50 µs	20 A/100 µs	20 A/100 µs	20 A/150 µs	20 A/150 µs	4 A/10 ms 4)	
THD	<10 %	<10 %	<10 %	<10 %	<10 %	<10 %	0 5)	
Power factor $\cos \phi^{1}$)	≥ 0.93	≥ 0.95	≥ 0.95	≥ 0.95	≥ 0.95	≥ 0.95	1 6)	
Circuit	Electronic drive	r						
Protection class	I							
Light distribution	Wide beam and	l narrow beam (asy	ymmetric beam on	request)				
Light colour / CRI	5700 K / R _a >70 (other colours on request)							
Enclosure colour	Dark grey							
Connecting terminals	6 poles standard (L, L1, L2, L3, N, PE / up to 6 mm ² / others on request)							
Enclosure material	Anodized copper-free Aluminium							
Weight	9,9 kg	14,4 kg	24,3 kg	28,7 kg	38,5 kg	41,1 kg	9,9 kg	
Cable glands / gland plates / enclosure drilling	2 x M25 metal thread nickel plated (E01) or 2 x M25 threaded plug (E05) (others on request)							
Degree of protection accd. to EN 60529	IP66/67							
Protective cover / protective bowl	tective cover / protective bowl Toughened glass, clear							
Swivel bracket	AiSi 316L stain	ess steel						

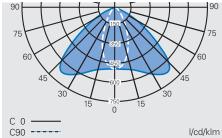
Please ask our sales service for the special Order No.
 Typical value at 230 VAC
 Value at 24 VDC = 4 A/10 ms; 48 VDC = 8 A/10ms; 24 VAC = 8 A/5 ms; 48 VAC = 20 A/5 ms

Polar curve

Polar curve PXLED 5L - 30L, narrow beam



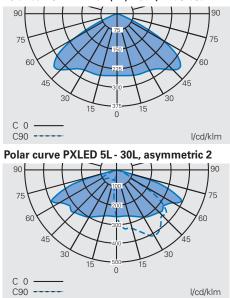




Polar curve PXLED 5L (LV) - 30L, wide beam

³) Value at 48 VDC = 1.1 A / 24 VDC = 2.3 A / 48 VAC = 1.85 A / 24 VAC = 3.5 A

 $^{5)}$ Value at 24 VDC = 0; 48 VDC = 0; 24 VAC = 120 % ; 48 VAC = 175 % $^{6)}$ Value at 24 VDC = 1; 48 VDC = 1; 24 VAC = >0.6 ; 48 VAC = >0.48





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