# **EU-TYPE EXAMINATION CERTIFICATE**

[2]	EQUIPMENT OR PROTECTIVE SYSTEM INTENDED FOR USE IN POTENTIALLY EXPLOSIVE
	ATMOSPHERES DIRECTIVE 2014/34/EU

[3] EU-Type Examination Certificate Number: Presafe 20 ATEX 39851X Issue 1

[4] Product: HPLN Series LED Explosion protected luminaire

[5] Manufacturer: Cooper Crouse-Hinds S.A.

[6] Address: Avda. Santa Eulàlia, 290
08223 Terrassa
Spain

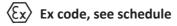
- [7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] DNV GL Presafe AS, notified body number 2460, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential reports listed in section 16.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018, EN 60079-1:2014, EN 60079-7:2015, EN 60079-18:2015, EN 60079-28:2015 and EN 60079-31:2014.

- [10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.
- [11] This EU TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- [12] The marking of the product shall include the following:



Date of issue: 2020-09-25



Ståle Sandstad
For DNV GL Presafe AS
The Certificate has been digitally signed.
See www.dnvgl.com/digitalsignatures for info

Stale Somosfal



[13] Schedule

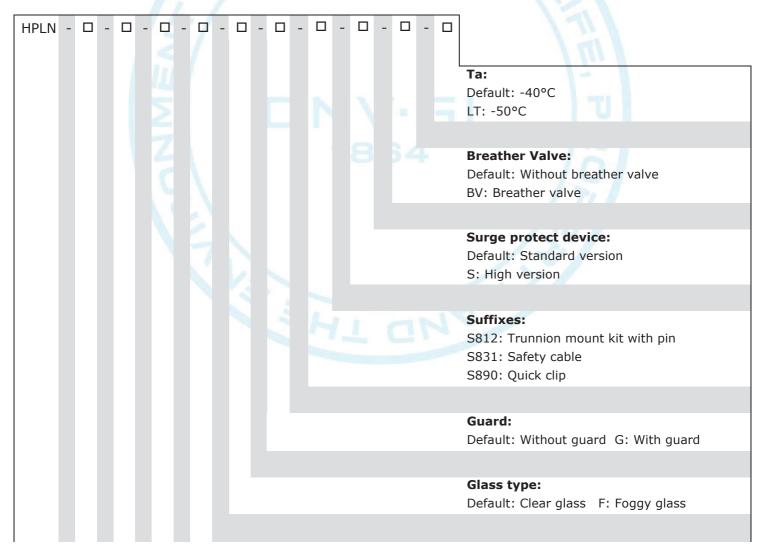
[14] **EU-Type Examination Certificate No:** Presafe 20 ATEX 39851X Issue 1

#### [15] **Description of Product**

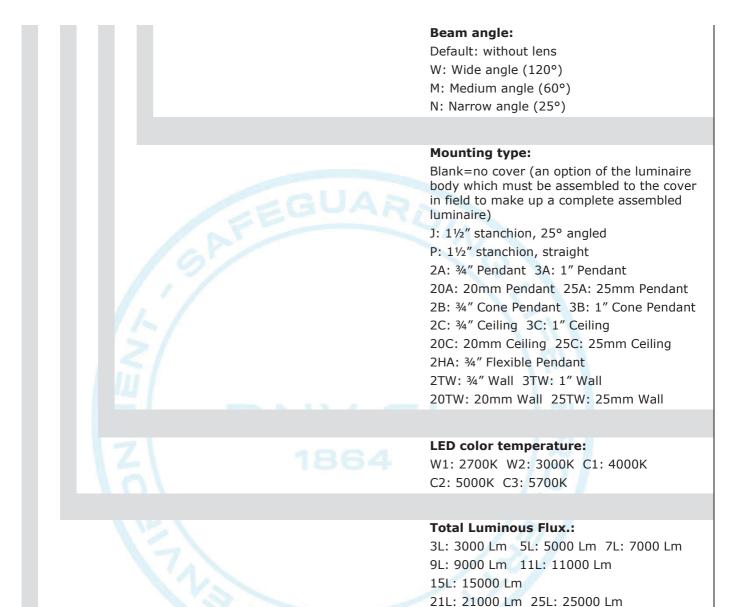
The HPLN Series LED Explosion protected luminaire consists one Ex e driver chamber and one Ex d LED light source chamber, a Ex bushing is installed in the heatsink to do the electrical connection of those two chambers. The whole product meets the requirements of Ex tb also, and there is a small breather chamber located in the side of heatsink, the breather chamber is relevant to Ex tb only. There are three configurations of the products, the difference between them are the heatsink and adaptor, the other parts are the same.

In the driver chamber, one or two Ex driver(s), some Ex terminals and one SPD (optional) are installed. In the LED chamber, the LED light sources meet the requirements of inherently safe optical radiation. The threaded joint between the adapter and the stanchion mounting cover is NPT 1  $\frac{1}{2}$  - 11  $\frac{1}{2}$ , the torque to fasten the threaded joint is 100 Nm.

## Type designation



## **DNV-GL**



#### Ex code

Products with Ex driver (INVENTRONICS, TPS 19 ATEX 079136 0266 U) installed:

II 2 G Ex db eb mb op is IIC T4 Gb

⟨EX⟩ II 2 D Ex tb op is IIIC T95°C Db

Products with Ex driver (Eaton, DEMKO 19 ATEX 2304U) installed:

(Ex) II 2 G Ex db eb mb op is IIC T\* Gb (see below table for details of temperature classes)

HPLN: Basic catalog series designation

Туре	Temperature class		Temperature class		
	T*	Та	T*	Та	
HPLN-3L	T5	-40°C/-50°C to +55°C	-	-	
HPLN-5L	T5	-40°C/-50°C to +55°C	-	-	
HPLN-7L	T5	-40°C/-50°C to +55°C	-	-	
HPLN-9L	T5	-40°C/-50°C to +50°C	T4	-40°C/-50°C to +55°C	
HPLN-11L	T5	-40°C/-50°C to +50°C	T4	-40°C/-50°C to +55°C	
HPLN-15L	T5	-40°C/-50°C to +50°C	T4	-40°C/-50°C to +55°C	
HPLN-21L	T5	-40°C/-50°C to +45°C	T4	-40°C/-50°C to +55°C	
HPLN-25L	T5	-40°C/-50°C to +40°C	T4	-40°C/-50°C to +55°C	

#### **Electrical Data**

Rated voltage: 100~240 V a.c. 50/60 Hz or 125~250 V d.c.

#### Rated parameters:

Туре	LED PCB	Max. power	Driver	
HPLN-3L	5 pcs. connection in series		1 x MU060H105AQ_MB or	
HPLN-5L	8 pcs. connection in series		1 x EUD-060S120DT-FT01	
HPLN-7L	10 pcs. connection in series	95 W	1- 1	
HPLN-9L	30 pcs. connection in series	5	1 x MU100H120AQ_MB or	
HPLN-11L	36 pcs. connection in series		1 x EUD-096S105DTAFT01	
HPLN-15L	2x (23 pcs. connection in series)	130 W	2 x MU060H105AQ_MB or	
100			2 x EUD-060S120DT-FT01	
HPLN-21L	2x (35 pcs. connection in series)	205 W	2 x MU100H120AQ_MB or	
HPLN-25L	2x (41 pcs. connection in series)		2 x EUD-096S105DTAFT01	

### **Degrees of protection (IP Code)**

IP66

#### **Ambient temperature:**

- -40°C to +55°C (when the INVENTRONICS LED driver is installed)
- -40°C to +40°C or -40°C to +45°C or -40°C to +50°C or -40°C to +55°C (when the Eaton LED driver and CLB... bushing are installed, refer to the Ex code for the relationship between temperature class and Ta) -50°C to +40°C or -50°C to +45°C or -50°C to +50°C or -50°C to +55°C (when the Eaton LED driver and LB... bushing are installed, refer to the Ex code for the relationship between temperature class and Ta)

#### **Routine tests**

- Each flameproof enclosure of 11L must be subjected to routine overpressure test of 1.6 MPa for at least 10 s according to clause 16 of EN 60079-1.
- The flameproof enclosure of 15L and 25L must be subjected to batch overpressure test of 1.6 MPa for at least 10 s according to clause 16 of EN 60079-1.
- A dielectric strength test shall be carried out at 1500V for at least 1 min according to requirements of clause 7.1 (6.1) of EN 60079-7:2015.

[16] **Report No.**: 2020-9031, Rev. 01

**Project No.:** PRJN-182727-2020-PA-CHN

**DNV-GL** 

#### [17] Specific Conditions of Use

- The product must be connected to electricity supplies with a prospective short-circuit current of max.1500A.
- Repairs of the flameproof joints must be made in compliance with the structural specifications provided by the manufacturer. Repairs must not be made on the basis of values specified in table 4 of EN 60079-1.
- Before application, separate ATEX certified Ex eb IIC Gb or/and Ex tb IIIC Db IP66 cable gland or plug should be incorporated in the Ex e chamber.
- Before application, separate ATEX certified Ex tb IIIC Db IP66 plug or breather/drains should be incorporated in the heatsink.

#### [18] Essential Health and Safety Requirements

Essential Health and Safety Requirements (EHSRs) are covered by the standards listed at item 9.

#### [19] Drawings and documents

As listed in confidential report 2020-9031.

## [20] Certificate History

Issue	Description	Issue date	Report no.
0	Original issue	2020-03-06	2020-9031, Rev. 00
1	For the stanchion mounting cover, an adapter is added to be installed at one end into the cover with NPT threaded joint.  The built-in Ex drivers were updated, the way to determine the end product temperature class was updated accordingly.	2020-09-25	2020-9031, Rev. 01

**END OF CERTIFICATE**