



1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

2 Component **Explosion-proof Signal Lamp Modules**

3 Manufacturer **Delvalle Global Solutions, S.L.U.**

4 Address **Paso El Prao, 6. 01320,
Oyón, Alava, Spain**

5 The component is specified in the description of this certificate and the documents to which it refers.

6 CML B.V., Chamber of Commerce No 6738671, Hoogoorddreef 15, Amsterdam, 1101 BA, The Netherlands, Notified Body Number 2776, 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 component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 12.

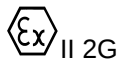
7 The 'U' suffix after the certificate number indicates that the component is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.

8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018	EN 60079-1:2014	EN IEC 60079-7:2015+A1:2018
EN 60079-11:2012	EN 60079-26:2015	

10 The equipment shall be marked with the following:



Ex db eb IIC Gb

T_s = -40°C to +90°C (for types BLQLED□/□/□/ L)
 -55°C to +90°C (for types BLQLED□/□/□/ H)



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11 Description

The Explosion-proof Signal Lamp Modules are components with combined levels of protection flameproof “db” and increased safety “eb”. The lamp compartment is flameproof, and the terminals are increased safety.

Alternatively, the module can have a level of protection intrinsic safety “ia”. The circuit is intrinsically safe when the input is connected to a certified safety barrier with specified output parameters that matches the input parameters.

The installation method of the components are divided into three types: board front, board back and panel mounting. Type board front is used to install with rail, type board back is used to install behind panel. For type board front two connection screws for external circuit are in the same direction of the lamp and for type board back type these two screws are in the opposite direction of the lamp.

The enclosure of explosion-proof signal lamp module is plastic.

Type designation:

BLQLED	□	/	□	/	□	/	□
1	2	-	3	-	4	-	5

1	Product identification code	BLQLED
2	Mounting type	C: Board front rail type T: Board back type P: Panel mounting (for Ex db eb only)
3	Colour of signal lamp module	R: red W: white G: green B: blue Y: yellow 0: general
4	Voltage of signal lamp	0: 10 – 28 V ac / dc (Ex ia) 1: 20 – 250 V ac / dc (Ex db eb) 2: 280 – 400 V ac (Ex db eb) 3: 10 – 28 V ac / dc (Ex db eb) 4: 50 – 277 V ac / dc (Ex db eb)
5	Ambient temperature code	L: Ta ≥ -40°C (for Ex db eb only) H: Ta ≥ -55°C

Electrical Ratings

Flameproof / Increased safety options:

20 – 250 V ac / dc

380 – 400 V ac

10 – 28 V ac / dc

50 – 277 V ac / dc



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Intrinsic safety options:

Input safety parameters for intrinsically safe connection, Group IIC:

Ui: 28 V a.c./d.c.

- 93 mA

Pi: 0.651 W

Ci: 0.01 μ F

Li: 2.2 mH

Degrees of protection (IP Code)

IP20

Ambient temperature range

-40°C to +60°C (for types BLQLED □/□/1/L, BLQLED□/□/3/L, BLQLED□/□/4/L)

-55°C to +60°C (for types BLQLED□/□/1/H, BLQLED□/□/3/H, BLQLED□/□/4/H)

-40°C to +50°C (for types BLQLED□/□/2/L)

-55°C to +50°C (for types BLQLED□/□/2/H)

Service temperature range

-40°C to +90°C (for types BLQLED□/□/□/L)

-55°C to +90°C (for types BLQLED□/□/□/H)

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	30 Aug 2019	R12464B/00	Issue of Prime Certificate

Note: Drawings that describe the equipment or component are listed in the Annex.

13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- i. Where the product incorporates certified parts or safety critical components the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.
- ii. Each unit that uses the combined types of protection flameproof and increased safety shall be subjected to a dielectric strength test in accordance with the requirements of EN/IEC 60079-7 clause 7.1.



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14 Schedule of Limitations

The following conditions relate to safe installation and/or use of the equipment.

- i. The dimensions of the flameproof joints differ from those of EN/IEC 60079-1 Table 2 and therefore shall not be repaired.
- ii. For units that use the combined types of protection flameproof and increased safety, they shall be installed into suitably dimensioned and certified enclosures that provide a minimum level of protection IP54. When the units are installed in enclosures of the type of protection increased safety in compliance with standard EN/IEC 60079-7, the clearance and creepage distances according to Section 4.3 and 4.4 and Table 2 shall be complied with.
- iii. For units that use the type of protection intrinsic safety, the power supply shall be from an appropriately certified and rated safety barrier. The ratings shall comply with the parameters listed in the description. The installation of the unit shall be inside an appropriate housing in such a way that the clearance and creepage distances specified in IEC/EN 60079-11 between intrinsically safe and non-intrinsically safe circuits are be complied with.
- iv. When units with type of protection intrinsic safety "Ex ia" are installed as part of equipment that has a maximum ambient temperature of +55°C, the temperature class shall be T4.

Certificate Annex

Certificate Number CML19ATEX1294U
Equipment Explosion-proof Signal Lamp Modules
Manufacturer Delvalle Global Solutions, S.L.U.



The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
BLQLED.000	1 of 1	-	30 Aug 2019	Explosion-proof Signal Lamp Module
BLQLED.000	1 of 1	-	30 Aug 2019	Explosion-proof Signal Lamp Module Increased Security