



EC Type Examination Certificate CML 14ATEX2069 Issue 0

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC
- 2 Equipment **Lumenox Bulkhead Luminaire**
- 3 Manufacturer **Lumenox Limited**
- 4 Address **Unit 18-20 The Mansley Centre,
Timothy's Bridge Road,
Stratford Upon Avon,
CV37 9NQ,
UK**
- 5 The equipment is specified in the schedule of this certificate and the documents to which it refers.
- 6 Certification Management Limited, Unit 1 Newport Business Park, New Port Road, Ellesmere Port CH65 4LZ, UK, Notified Body Number 2503, in accordance with Article 9 of Directive 94/9/EC, certifies that this equipment 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 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This EC Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 94/9/EC Article 8 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:

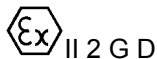
EN 60079-0:2012+A11:2013

EN 60079-7:2007

EN 60079-18:2009

EN 60079-31:2014

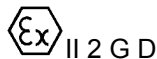
- 10 The equipment shall be marked with the following:



Ex e mb IIC T6 Gb

Ex tb IIIC T85°C Db

Ta= -40°C to +55°C*



Ex e mb IIC T5 Gb

Ex tb IIIC T100°C Db

Ta= -40°C to +70°C*

* The upper ambient temperature depends on the temperature class and maximum surface temperature assigned.

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11 Description

The Lumenox Bulkhead is a luminaire fitted with LED's and operating at a rated voltage of 110 V to 240 V. It is available in two colours (grey or black), with internal and external earth and a number of cable entry points. The Bulkhead has four fixing holes located on the back for wall mounting.

The Bulkhead enclosures comprise an aluminium base (housing the LED board, driver board, power supply and connection terminals) and an aluminium lid with toughened glass window. The lid and base are fixed together using M6 bolts which pass through the lid and into threaded holes in the base.

The rectangular aluminium base of the enclosure has a raised ridge for compression of the seal located in the lid. It houses two internal enclosures (PSU and LED/Driver), the connection terminals and wiring. Internal enclosure one is a separately potted (black epoxy resin) power supply unit. This separately potted PSU may be fitted remotely from the luminaire where appropriate. Internal enclosure two contains the driver board that is separately potted (black epoxy resin) and an LED Board which is again, separately potted (QSiI-222). This second internal enclosure is fitted with a coloured plastic reflector lens.

The rectangular aluminium lid of the enclosure has a silicone seal permanently fixed into a groove using a silicone adhesive. It has a toughened glass window secured by screws underneath which a silicone seal is permanently fixed into a groove using a silicone adhesive. There are clearance holes to allow fixing to the base and a ridge to allow compression of the seal in the base.

The LED boards is fitted with 27 LEDs which are covered with a minimum of 8 mm of clear encapsulant (QSiI-222).

The Bulkhead may be supplied with a current of 300 mA or 350 mA. A complete list of available variants is shown in the table below.

Model	Current	Ambient	T Class	T Rating
Bulkhead	300 mA/350 mA	-40°C to +55°C	T6	T85°C
Bulkhead	300 mA/350 mA	-40°C to +70°C	T5	T100°C

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	09 Feb 2016	R353A/00	The issue of the prime certificate

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



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13 Conditions of manufacture

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

- 13.1 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.
- 13.2 A visual inspection shall be carried out on the encapsulated parts to check for damage, in accordance with EN 60079-18:2009, clause 9.1. No damage shall be evident, such as cracks in the compound, exposure of the encapsulated parts, flaking, significant shrinkage, swelling, decomposition, failure of adhesion or softening.

14 Special Conditions for Safe Use (Conditions of Certification)

None

Certificate Annex



Certificate Number CML 14ATEX2069
Equipment Lumenox Bulkhead Luminaire
Manufacturer Lumenox Limited

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

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Drawing No	Sheets	Rev	Approved Date	Title
LB2DB	1 of 1	002	09 Feb 2016	3 way driver board (using 2 drives)
LBX01	1 of 1	004	09 Feb 2016	LBX01 – LBX Bulkhead certification label
LBXBM	1 of 1	002	09 Feb 2016	LBX Base Housing Machined
LBXLM	1 of 1	002	09 Feb 2016	LBX Lid Machined
LBXFG01	1 of 1	01	09 Feb 2016	Typical gasketing for LBX Range
LBXEA	1 of 1	001	09 Feb 2016	Earth Stud Assembly
LBXGEN	1 of 1	001	09 Feb 2016	LBX General Assembly
LBXGEN2	1 of 1	001	09 Feb 2016	LBX General Assembly Part 2
LBXOPTIC	1 of 1	002	09 Feb 2016	LBX Optical & Driver Assembly
LF02-00106	1 of 1	001	09 Feb 2016	3, 6 & 12 Series Power Supply Case
LFX3612PS	1 of 1	002	09 Feb 2016	3, 6 & 12 Series Power Supply
E317867-A42-CB-1	1 to 7	-	09 Feb 2016	ECP150 Critical components list
ECP150PS	1 of 1	-	09 Feb 2016	ECP150PS (PSU Schematic)
LF3DB	1 of 1	002	09 Feb 2016	3Way Driver Board
OX-LTG-DRV3	1 of 1	1.0	09 Feb 2016	3 Channel LED Driver Schematic
OX-LTG-DRV3 BOM	1 to 2	1.0	09 Feb 2016	3 Channel LED Driver BOM