

(1) **EC-TYPE EXAMINATION CERTIFICATE**(2) Equipment or protective system intended for use in potentially explosive atmospheres
Directive 94/9/EC(3) EC-Type Examination Certificate nr. **LOM 09ATEX2062 X**(4) Equipment or protection system Emergency luminarie
Types AB12 NI

(5) Applicant COOPER Crouse-Hinds

(6) Address Avda. Santa Eulalia, 290
08223-TERRASSA (BARCELONA)
SPAIN

(7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) Laboratorio Oficial J.M. Madariaga (LOM), notified body number 0163 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.
The examination and test results are recorded in confidential report nr. **LOM 09.224 UP**


(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

-	Standards	EN 60079-0:2006	EN 60079-1:2007	EN 60079-7:2007
		EN 60079-11:2007	EN 61241-0:2006	EN 61241-1:2004


(10) If the sign X is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-Type Examination Certificate relates only to the design and construction of this specified equipment or protective system in accordance with the Directive 94/9/EC. Further requirements of the Directive apply to the manufacture and supply of this equipment or protective system. These are not covered by this certificate.


(12) The marking of the equipment or protective system shall include the following:

 II 2 GD Ex d e ib IIB T*
Ex tD A21 IP67 T* °C
-20 °C ≤ Ta ≤ +55°C

OFICIAL


Carlos Fernández Ramón
DIRECTOR OF THE LABORATORY

Madrid, 2009-12-01


Angel Vega Remesal
Head of the ATEX

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LABORATORIO OFICIAL J. M. MADARIAGA

(A1) SCHEDULE

(A2) EC-Type Examination Certificate: **LOM 09ATEX2062 X**

(A3) Description of equipment or protective system

Flameproof emergency luminarie designed to permit the opening in gas hazardous areas for maintenance proposals.

The flameproof enclosure is based on a cylindrical glass tube closed in both ends by aluminium covers which dimensions are 771 mm and 1326 mm length per 120 mm of diameter.

The luminarie includes two fluorescent lamps of either 18 W or 36 W and NiCd battery of either 4 Ah or 7Ah and also the electronic circuit for the control of battery charge and discharge.

The circuit is designed to permit to open the enclosure when the mains power is off. The battery is designed according the requirements of increased safety and intrinsically safe circuits types of protection. Each battery cell is monitored individually and includes an infallible limiting resistor per cell. When the enclosure is opened a limit switch isolates the battery from the other electrical circuits except those connected via infallible intrinsically safe resistors.

The equipment is also designed to be use in hazardous areas due to the presence of combustible dusts and bases in protection by enclosure type of protection.

Electric characteristics:
Mains voltage: 220/240 V, 50/60 Hz
Lamp type: Fluorescent tube T8 G13
Lamp power : 2x18 or 2x36 W
Battery type: 5 NiCd cells in series
Battery capacity: 4 Ah or 7 Ah

Temperature class and surface temperature	-20 °C ≤ Ta ≤ +40°C	-20 °C ≤ Ta ≤ +55°C
	Ex d e ib IIB T6	Ex d e ib IIB T5
	Ex tD A21 IP67 T85 °C	Ex tD A21 IP67 T100 °C

(A4) Test report nr **LOM 09.224 UP**

(A5) Special conditions for safe use

- The enclosure can be opened in gas hazardous areas when isolated from mains for maintenance proposals
- The enclosure can not be opened in presence of combustible dusts
- Only replacement of lamp tubes can be done in hazardous areas
- This luminarie can be only uses in places with low risk of mechanical impact

(A6) Individual tests

Each flameproof enclosure must be submitted to a static overpressure test at 1,1 MPa according paragraph 15.1.3 of EN 60079-1:2007.

Each internal circuit set must be submitted to a dielectric test between a battery terminal and earth at 1500 V according the paragraph 7.1 of EN 60079-7:2007. This test must be carrying out when limit switch is in open position.

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LABORATORIO OFICIAL J. M. MADARIAGA

(A1) **SCHEDULE**

(A2) EC-Type Examination Certificate: **LOM 09ATEX2062 X**

(A7) Essential Health and Safety Requirements

Explosion safe requirements are covered by application of the standards indicated in page 1/3 of this certificate.

(A8) Descriptive Documents

	<u>Rev.</u>	<u>Date</u>
- Description nr. 4440	a	2009-11-06
- Drawings nr.:		
11750218400Pz	-	2009-03-17
11750236400_700Pz	-	2008-09-10
21750218401Pz	-	2009-07-09
21750236401_7001Pz	-	2009-07-09
31750005400Pz	-	2008-09-03
31750005700Pz	-	2008-09-03
31750100903	-	2008-06-04
31750218483Pz	A	2009-11-06
31750236483Pz	A	2009-11-06



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**(1) EC-TYPE EXAMINATION CERTIFICATE SUPPLEMENT**

(2) Equipment or protective system intended for use in potentially explosive atmospheres
Directive 94/9/EC

(3) Supplement nr. **1** to EC-Type Examination Certificate number **LOM 09ATEX2062 X**

(4) Equipment or Protection System Emergency luminaire
Type AB12 NI*

(5) Manufacturer COOPER Crouse-Hinds


(6) Address Avda. Santa Eulalia, 290
08223-TERRASSA (BARCELONA)
SPAIN

(7) Test report nr.: **LOM 13.485 RP**

(8) Variations included in this certificate

- Update to the standards EN 60079-0:2009, EN 60079-1:2007, EN 60079-7:2007, EN 60079-11:2012 and EN 60079-31:2009.
- Replace the battery cells by a new type, maintaining the characteristics.
- To include a new variant called AB12 NIS. This variant does not include limit switches that allow opening the enclosure in classified areas as not disposing of internal circuit with type of protection allowing such openness. In that case a warning level "DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT" is required.

(9) Changes in marking

	Type AB12 NI	Type AB12 NIS
 II 2 GD	Ex d e ib IIB T6 Gb Ex tb IIIC T85 °C Db -20 °C ≤ Ta ≤ +40 °C	Ex d IIB T6 Gb Ex tb IIIC T85 °C Db -20 °C ≤ Ta ≤ +40 °C
	Ex d e ib IIB T5 Gb Ex tb IIIC T100 °C Db -20 °C ≤ Ta ≤ +55 °C	Ex d IIB T5 Gb Ex tb IIIC T100 °C Db -20 °C ≤ Ta ≤ +55 °C

(10) Changes in the special conditions for a safe use

None

This supplement must be an inseparable part together with the base certificate **LOM 09ATEX2062 X**

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LABORATORIO OFICIAL J. M. MADARIAGA

(3) Supplement nr. 1 to EC-Type Examination Certificate number **LOM 09ATEX2062 X**

(11) Descriptive documents

		<u>Rev.</u>	<u>Date</u>
- Technical description nr :	AB12NI_S1	0	2013-10-01
- Drawings nr.:	31750218483	D	2013-10-02
	31750218484	-	2013-10-02
	31750218783	-	2013-10-02
	31750218784	-	2013-10-02
	31750236483	D	2013-10-02
	31750236484	-	2013-10-02
	31750236783	A	2013-10-02
	31750236784	-	2013-10-02

Getafe, 2013-10-18

Carlos Fernández Ramón
Certification Committee Responsible