

CESI**CERTIFICATE****ISMES****IPH**
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Schema di certificazione

CESI-ATEX**[1] SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE**

**[2] Component intended for use on/in equipment or protective system
intended for use in potentially explosive atmospheres
Directive 2014/34/EU**

[3] Supplementary EU-Type Examination Certificate number:

CESI 00 ATEX 060U /04

[4] Component: Pilot LED type M-0612 and M-0487

[5] Manufacturer: CORTEM S.p.A.

[6] Address: Via Aquileia 10, I - 34070 Villesse (GO), Italia

[7] This supplementary certificate extends EC-Type Examination Certificate CESI 00 ATEX 060U, to apply to products designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

[8] CESI, notified body n. 0722 in accordance with Article 17 of the Directive 2014/34/EU of the Parliament and Council of 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 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 n. EX-B6025650

[9] In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016

[10] The sign "U" placed after the certificate number indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified component in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this component. These are not covered by this certificate.

[12] The marking of the component shall include the following:

**Ex II 2GD Ex db eb IIC Gb or Ex db IIC Gb
Ex tb IIIC Db**

This certificate may only be reproduced in its entirety and without any change, schedule included.

Date 12/12/2016 - Translation issued the 12/12/2016

Prepared
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Approved
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II Responsabile

(Roberto Piccin)

ACCREDIA
LE NIT ITALIANO DI ACCREDITAMENTO

PRD N. 018B
Membro degli Accordi di Mutuo
Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC
Mutual Recognition Agreements

[13]

Schedule

[14] SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 00 ATEX 060U /04

[15] **Description of the variation to the component.**

- Update to EN 60079-0:2012+A11:2013; EN 60079-1:2014; EN 60079-7:2015; EN 60079-31:2014 standards;
- Update marking label;
- Add new lens colour for M-0487 (I = colourless, G = amber and B = blue),
- Add new hex body with across flats 20mm (optional).

Description of equipment.

Pilot lights multi-LED series M-0612 and the pilot lights mono-LED series M-0487 for “Ex eb” or “Ex db” housing are used as external devices that passing through enclosure cover or wall.

M-0612 pilot light multi-LED consists in one internal plastic body that containing the electronic part and three LED, at the top are screwed and locked the transparent polycarbonate lens that containing the lighting led. At the bottom of plastic body there are two terminals for the cable connection (max. 2,5mm²). Plastic body and polycarbonate lens are locked by sealing agent.

M-0487 pilot light mono- LED consists in one external aluminium body with at the top the transparent dome screwed and locked. This dome containing one LED completely sealed with resin at the bottom, only two or three cables passing through the resin. All the threads are sealed with resin.

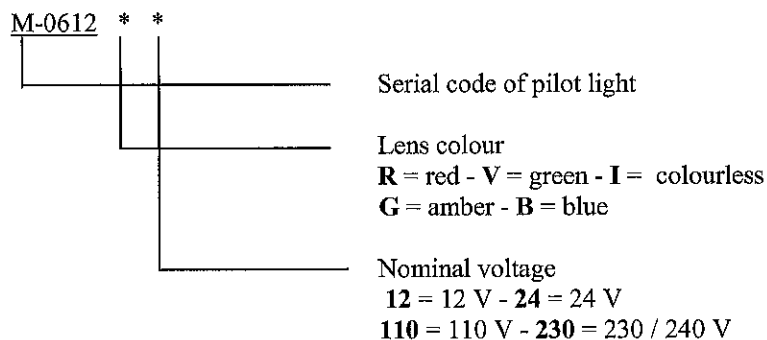
Pilot LED series M-0612 shall be marked as follows:

Ex II 2GD Ex db eb IIC Gb
Ex tb IIC Db
IP66

Pilot LED series M-0487 shall be marked as follows:

Ex II 2GD Ex db IIC Gb
Ex tb IIC Db
IP66

The pilot lights multi-LED series M-0612 are identified by the following codes:



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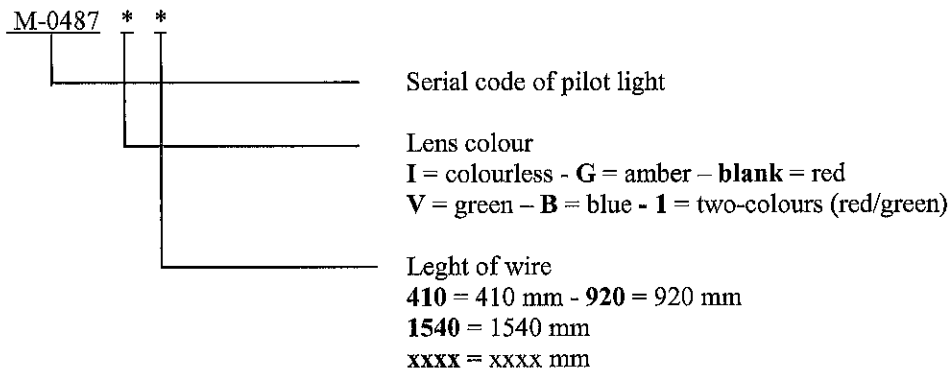
[13]

Schedule

[14] SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 00 ATEX 060U /04

Description of the equipment (follows)

The pilot lights multi-LED series M-0487 are identified by the following codes:



Electrical characteristics

Pilot Light M-0612

Rated voltage: from 12 V up to 240 V ac/dc
Frequency: 50/60 Hz
Rated consumption: < 1,5 W

Pilot Light M-0487

Voltage (Vf – LED): from 2,1V to 4 V
Rated current: 20 mA
Cable section: 0,5 or 0,75sqmm

Pilot Light both type

Degree of protection: IP 66
Service temperature: - 40°C ÷ + 80°C

[16] Report n. EX-B6025650#

Routine tests

The pilot LED type M-0612 and M-0487 are exempted from overpressure routine test, required in EN 60079-1: 2014 clause 16.1, because the volume is less than 10 cm³.

For the pilot LED type M-0612 the dielectric test with applied voltage shall be performed (according to clause 7.1 of the EN 60079-7: 2015) at 1500Vac.

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Schedule

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 00 ATEX 060U /04**

[17] **Schedule of limitations**

Rated service temperature range: from -40°C to +80°C.

The pilot LED must be assembled on the cover or walls of metallic and/or plastic enclosures, ATEX certified, for group IIC, with protection mode “Ex eb” or “Ex db” and group IIIC (dust) with suitable degree of protection IP.

The pilot LED shall be mounted on:

- “Ex eb” wall enclosure with minimum thickness 1,5mm and locknut.
- “Ex db” wall enclosure with minimum thickness 8mm, minimum 5 threads engaged and locked with a blocking system against loosening.

When the pilot LED are installed in an “Ex eb” enclosure the clearances and creepage distances according to clause 4.3, 4.4 and table 2 of the EN 60079-7: 2015 standard have to be fulfilled.

When the component are installed into the electrical apparatus, care must be taken that the temperatures at the mounting place are within the service temperature range.

The safety instruction provided by Manufacturer shall be strictly respected.

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

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

The Essential Health and Safety Requirements are covered by compliance to the following standards:.

EN 60079-0: 2012+ A11: 2013	Electrical apparatus for explosive gas atmospheres: General requirements
EN 60079-1: 2014-	Explosive atmospheres: Flameproof enclosures “d”
EN 60079-7: 2015-	Explosive atmospheres: increased safety “e”
EN 60079-31: 2014-	Explosive atmospheres : dust ignition protection by enclosure “t”

[19] **Descriptive documents (prot. EX-B6025656)**

- Technical Nr. A4-6353 (4 pg.)	Rev. 0	dated	16/06/2016
- Drawing n. A3-5396 (2pg)	Rev. 1	dated	16/06/2016
- Safety Instructions F-249 (5 pg.)	Rev. 4	dated	16/06/2016
- Facsimile Attestation of Conformity n. 0015		dated	16/06/2016

One copy of all documents is kept in CESI files.

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Schedule

[14] SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 00 ATEX 060U /04

Certificate history

Issue n.	Issue Date	Summary description of variation
04	2016/12/12	- Update to new editions of EN 60079-0:2012+A11:2013; EN 60079-1:2014; EN 60079-7:2015; EN 60079-31:2014 standards; - Update marking label; - Add new lens colour for M-0487 (I = colourless, G = amber and B = blue), - Add. new hex body with across flats 20mm (optional);
03	2012/10/02	- updating to standard editions: EN 60079-0: 2012; EN 60079-1: 2007; EN 60079-7: 2007; EN 60079-31:2009
02	2010/10/05	- New pilot light LED type M-0612
01	2007/11/26	- new protection mode (tD) in compliance with EN 61041-0: 2006; EN61241-1: 2004 - Update of nameplate - updating to standard editions: EN 60079-0: 2006; EN 60079-1: 2004; EN 60079-7: 2003;
00	2000/10/30	First issue of certificate CESI 00 ATEX 060U