



IECEX Certificate 4026 of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEX CES 11.0030U	Issue No: 1	Certificate history:
Status:	Current	Page 1 of 4	Issue No. 1 (2016-12-20) Issue No. 0 (2012-01-09)
Date of Issue:	2016-12-20		
Applicant:	CORTEM S.p.A. Via Aquileia 10 I - 34070 Villesse (GO) Italy		
Equipment:	Pilot Lights, type M-0612 and M-0487		
Optional accessory:			
Type of Protection:	Flameproof enclosures 'd'; increased safety 'e'; Dust Ignition protection 't'		
Marking:	Ex db IIC Gb Ex db eb IIC Gb Ex tb IIIC Db IP66		

Approved for issue on behalf of the IECEx
Certification Body:

Mirko Balaz

Position:

Head of IECEx CB

Signature:
(for printed version)

Date:

20-12-2016

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

CESI
Centro Elettrotecnico
Sperimentale Italiano S.p.A.
Via Rubattino 54
20134 Milano
Italy

CESI
CESI S.p.A.
Testing & Certification Division
Business Area Certification
Il Responsabile
(Roberto Piccini)

gl

PAD B6027430 (2320932) - USO RISERVATO



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Manufacturer: **CORTEM S.p.A.**
Via Aquileia 10
I - 34070 Villesse (GO)
Italy

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

IT/CES/ExTR11.0031/00 IT/CES/ExTR11.0031/01

Quality Assessment Report:

IT/CES/QAR06.0002/10



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Pilot lights type M-0612 (with type of protection "Ex db eb") and the pilot lights type M-0487 (with type of protection "Ex db") are intended to be mounted in an Ex-e or Ex-d housing. They are used as external devices and are mounted on the enclosure cover or wall.

The multi-LED pilot light M-0612 consists in one plastic body that contain the lighting LED's and the electronic part (sealed with bi-component resin), at the top is screwed and locked the transparent polycarbonate lens. At the bottom of plastic body there are two screw terminals for the cable connection.

The mono-LED pilot light M-0487 consists in one external aluminium body with at the top the transparent polycarbonate dome screwed and locked. This dome containing one LED is completely sealed with resin at the bottom, only two or three cables passing through the resin. All the threads are sealed with resin. Electrical connection are made with permanently connected non-terminated cables (section 0.5 or 0.75sqmm)

For further information see Annex.

CONDITIONS OF CERTIFICATION: NO



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Variation 1:

Variation 1.1

- Add new lens colours for M-0487,

Variation 1.2

- Add new hex body with across flats 20mm (optional).

Variation 1.3

- Upgrade of marking label;

Variation 1.4

- The Pilot lights originally assessed in compliance with IEC 60079-0: 2007, IEC 60079-1:2007, IEC 60079-7:2006 and IEC 60079-31:2008, have been re-assessed on the basis of the Standards: IEC 60079-0: 2011; IEC 60079-1:2014; IEC 60079-7 2015 and IEC 60079-31 2013.

Annex:

IECEX CES 11.0030U ANNEX Issue 1-Pilot LED.pdf



IECEX Certificate of Conformity



Prot: B6027430

Annex to certificate:

IECEX CES 11.0030U Issue No.:1 of 2016-12-20

Applicant:

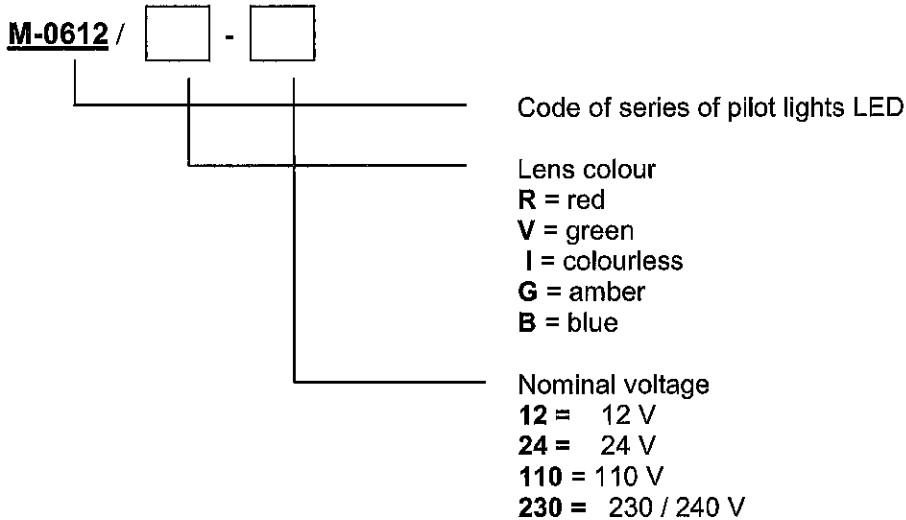
CORTEM S.p.A., Via Aquileia 10,
I - 34070 Villesse (GO), Italy

Electrical Apparatus:

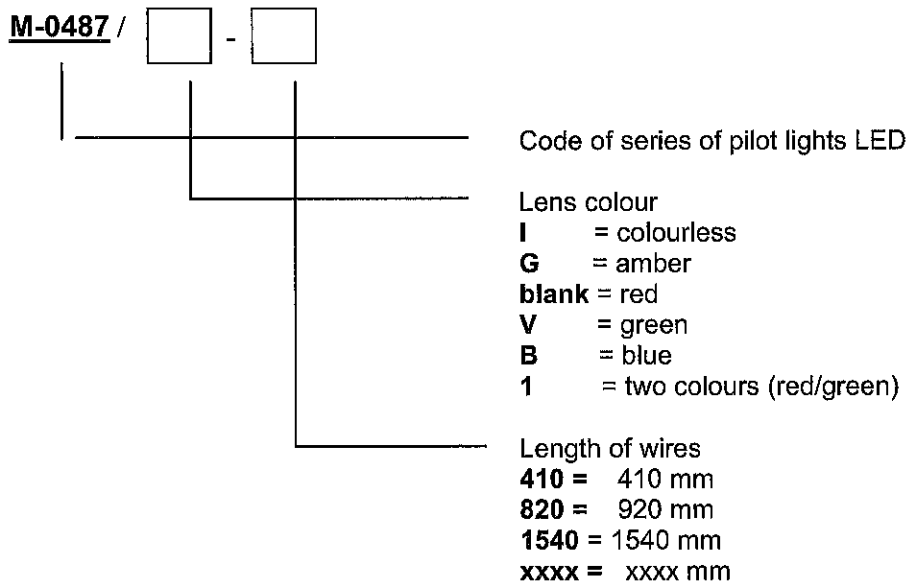
Pilot Lights, type M-0612 and M-0487

Model Identification:

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



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



Marking

Type of Pilot Lights:	M-0612 (for multi LED)	or	M-0487 (for mono LED)
Year of production:	<i>year</i>		<i>year</i>
Type of protection:	Ex db eb IIC Gb Ex tb IIIC Db IP66		Ex db IIC Gb Ex tb IIIC Db IP66
Certificate number:	IECEX CES 11.0030U		IECEX CES 11.0030U
Supply:	Vac/dc (12V up to 240V)		20 mA
Min. ambient temp.:	Tmin. -40°C		Tmin. -40°C
Manufacturer:	Cortem (*)		Cortem (*)

(*) - Cortem Spa via Aquileia, 10; 34070 Villesse (GO) ITALY



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Applicant:

CORTEM S.p.A., Via Aquileia 10,
I - 34070 Villesse (GO), Italy

Electrical Apparatus:

Pilot Lights, type M-0612 and M-0487

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
Cable section (max.)	2.5 sqmm

Pilot Light M-0487

Max. Voltage:	2.1 + 4 V
Rated current:	20 mA
Section of cables:	0.5 or 0.75sqmm
Passing through hub (only for Ex e housing):	Ø 16.5 mm Ø 32.5 mm
Threaded hub:	M32x1.5mm for pilot light M-0612 M16x1.5mm for pilot light M-0487

Service temperature:

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

Schedule of limitations

- Rated service temperature range: from -40°C to +80°C.
- The Pilot Lights must be assembled on the cover or walls of metallic and/or plastic enclosures, IECEx certified, for group II with increased safety type of protection ("Ex eb") and group III (dust, "Ex tb") with suitable degree of protection IP.
- The Pilot Lights can be mounted on:
 - "Ex eb" cover or wall of enclosure with minimum thickness 1,5mm and blocked with locknut.
 - "Ex db" cover or wall of enclosure with minimum thickness 8mm, minimum 5 threads engaged and locked with a blocking system against loosening.
- When the Pilot Lights are installed in an "Ex eb" enclosure the clearances and creepage distances according to clause 4.3, 4.4 and table 2 of the IEC 60079-7 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.