1002

CESI CERTIFICATE

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Codice fiscale e numero
iscrizione CCIAA 00793580150

Registro Imprese di Milano
Sezione Ordinaria
N. R.E.A. 429222
P.I. IT00793580150

Schema di certificazione

CESI ATEX

Il CESI è stato autorizzato dal governo italiano ad operare quale organismo di certificazione di apparecchi e sistemi destinati a essere utilizzati in atmosfera potenzialmente esplosiva con D.M. 1/3/1983, D.M. 19/6/1990, D.M. 20/7/1998 e D.M. 27/9/2000

[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 number:

CESI 03 ATEX 046

[4] Equipment: Obstruction signalling lights series XLF.

[5] Manufacturer: **COR.TEM S.p.A.**

[6] Address: Via Aquileia 10, Villesse (Gorizia – Italy)

[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] CESI, notified body n. 0722 in accordance with Article 9 of the Council Directive 94/9/EC 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 n. EX-A3/007992.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014: 1997 + A1..A2 **EN 50018: 2000 + A1** **EN 50281-1-1:1998 + A1**

[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, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process 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 EEx d IIC T6 IP 65 T85°C

Date March 6th 2003 translation issued on March 6th 2003

Prepared
Mirko Balaz

Approved
Ulisse Colombo

CESI
CENTRO ELETTROTECNICO SPERIMENTALE ITALIANO
Business Unit Certificazione
Il Responsabile

[13] **Schedule**

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 03 ATEX 046**

[15] **Description of equipment**

The obstruction signalling lamps series XLF are made by a glass globe mounted on an aluminium body. They can use xenon lamps or LED.

Electrical characteristics

Type	with xenon lamp		with LED
	XLF-1	XLF-2	XLF-3
Rated voltage	230 Vac	230 Vac	12 ÷ 260 Vac/dc
Rated power	25 W	25 W	20 W
Rated frequency	50/60 Hz	50/60 Hz	50/60 Hz
Flash energy	5 J	10 J	---

The accessories used for cable entries shall be certified according to the standards EN 50014, EN 50018 and EN 50281-1-1 and shall guarantee a degree of protection at least IP 65.

[16] **Report n. EX-A3/007992**

Routine tests

The manufacturer shall carry out the routine tests prescribed at clause 24 of the EN 50014 standard.
The routine overpressure test shall be carried out with the static method (clause 15.1.3.1 of EN 50018 standard) at the pressure of 15.6 bar.

Descriptive documents (prot. EX-A3/007995)

- n. A4-3949 Rev. 1 (2 p.)	dated 13.06.2002
- n. A1-3948 Rev. 1	dated 13.06.2002
- Safety instructions F-243 Rev. 0 (5 p.)	dated 16.05.2002
- EC declaration of conformity n. CE/0030	dated 13.06.2002

One copy of all documents is kept in CESI files.

[17] **Special conditions for safe use**

None.

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

Covered by standards.

EXTENSION n. 01/07

to EC-Type Examination Certificate CESI 03ATEX 046

Equipment: Obstruction signalling lights series XLF

Manufacturer: **COR.TEM S.p.A.**

Address: Via Aquileia 10, Villesse (GO)

Admitted variation

- Updating to new standards EN 60079-0 (2006), EN 60079-1 (2004), EN 61241-0 (2006), EN 61241-1 (2004)
- Updating of nameplate
- New electrical characteristics for Xenon lamps series XLF-1 and XLF-2
- New range of ambient temperature: Ta – 20 ÷ + 55 °C

Equipment identification

The equipment series XLF-1, XLF-2 (Xenon lamps), for ambient temperature range : Ta - 20 ÷ + 40 °C and the equipment series XLF-3 for ambient temperature range : Ta - 20 ÷ + 40 °C and Ta – 20 ÷ + 55 °C shall include the following markings:

II 2GD Ex d IIC T6 ; Ex tD A21 IP65 T .. °C

The equipment series XLF-1, XLF-2 (Xenon lamps), for ambient temperature range : Ta - 20 ÷ + 55 °C shall include the following markings:

II 2GD Ex d IIC T5 ; Ex tD A21 IP65 T ... °C

The accessories used for cable entries and for unused holes shall be subject of separate certification in compliance to the following standards: EN 60079-0 (2006); EN 60079-1 (2004); EN 61241-0 (2006); EN 61241-1 (2004) and they shall guarantee a minimum degree of protection IP 66 according to EN 60529 (1991) Standard.

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 03ATEX046.

date 11/09/2007 - translation issued the 11/09/2007

prepared Sergio Mezzetti

verified Mirko Balaz

approved Fiorenzo Bregani

CESI S.p.A.
Divisione Energia
"Area Tecnica Certificazione"
Il Responsabile

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EXTENSION n. 01/07

to EC-Type Examination Certificate CESI 03ATEX 046

Electrical characteristics

Equipment series	XLF-1	XLF-2
Rated voltage	230 V c.a.	
Rated power	25 W	
Rated frequency	50/60 Hz	
Flash energy	5 – 6 J	10 – 16 J

unchanged the electrical characteristics of the equipment series XLF-3 (led)

Class of temperature and max. surface temperature

Equipment series	Class of temperature	Max. surface Temp. (Ta –20 + 40 °C)	Max. surface Temp. (Ta –20 + 55 °C)
XLF-1	T6	72	
	T5		87
XLF-2	T6	72	
	T5		87
XLF-3	T6	63	78

Report n. EX-A7023564

Routine tests

The manufacturer shall carry out the routine tests prescribed at par. 27 of the EN 60079-0 and at par. 24 of the EN 61241-0 (2006) Standards.
The routine overpressure test shall be carried out, with the static method (par. 15.1.3.1 of EN 60079-1 Standard), at the pressure of 15.6 bar

Descriptive documents (prot. EX-A7023568)

- Technical Note A4-4957 (2 pg.)	Rev. 00	dated	19/03/2007
- Drawing n°. A4-4951	Rev. 00	dated	02/04/2007
- Drawing n°. A4-4952	Rev. 00	dated	02/04/2007
- EC Declaration of Conformity		dated	19/03/2007
- Safety Instruction mod. F-.243 (5 pg.)	Rev. 01	dated	19/03/2007

One copy of all documents is kept in CESI files.

Essential Health and Safety Requirements

The Health and Safety Requirements are assured by compliance with the following Standards:

- EN 60079-0 : 2006 — Electrical apparatus for explosive gas atmospheres. General requirements
- EN 60079-1 : 2004 — Flamoproof enclosures "d".
- EN 61241-0 : 2006 — Electrical apparatus for use in the presence of combustible dust. General requirements
- EN 61241-1 : 2004 — Protection by enclosures "tD"

EXTENSION n. 02/11

to EC-Type Examination Certificate CESI 03ATEX046

Equipment: Obstruction signalling lights series XLF

Manufacturer: **COR.TEM S.p.A.**

Address: Via Aquileia 10, Villesse (GO)

Admitted variation
- Updating to new standards EN 60079-0 (2009), EN 60079-1 (2007), EN 60079-7 (2007), EN 60079-31 (2009)
- Updating of nameplate
- New degree of protection IP 66
- New minimum ambient temperature Ta = - 50 °C
- New protection mode "Ex de"
- New signaling light model XLF-4

Equipment identification and description
The equipment series XLF..shall include the following markings:

Models XLF-1 e XLF-2 (Xenon lamps) for **Ta_max. + 55 °C**

II 2GD **Ex d IIC T5 Gb ; Ex tb IIIC T...°C Db IP66**

II 2GD **Ex de IIC T5 Gb ; Ex tb IIIC T...°C Db IP66**

Models XLF-1 e XLF-2 (Xenon lamps) for **Ta_max. + 40 °C**
and models XLF-3 e XLF-4 (LED lamps) for **Ta_max. + 55 °C**

II 2GD **Ex d IIC T6 Gb ; Ex tb IIIC T...°C Db IP66**

II 2GD **Ex de IIC T6 Gb ; Ex tb IIIC T...°C Db IP66**

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 03ATEX046

date 23/09/2011 translation issued the 23/09/2011

prepared Sergio Mezzetti

verified Mirko Balaz

approved Fiorenzo Bregani

CESI S.p.A.
Testing & Certification Division

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-101

EXTENSION n. 02/11

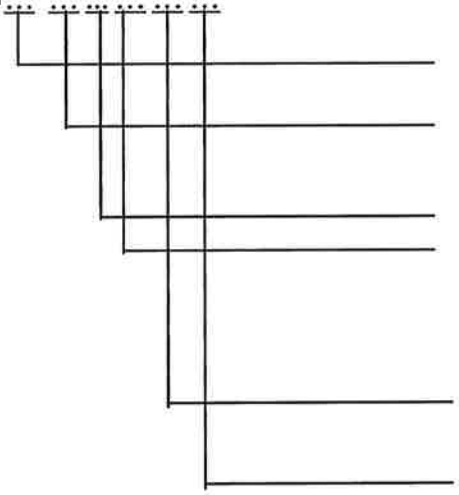
to EC-Type Examination Certificate CESI 03ATEX046

Equipment identification and description (follows)

The obstruction signalling lights series XLF.. are identified by the following codes.

Mod XLF-1, 2

XLF...



Protection mode: -- per Ex-d,
E per Ex-de

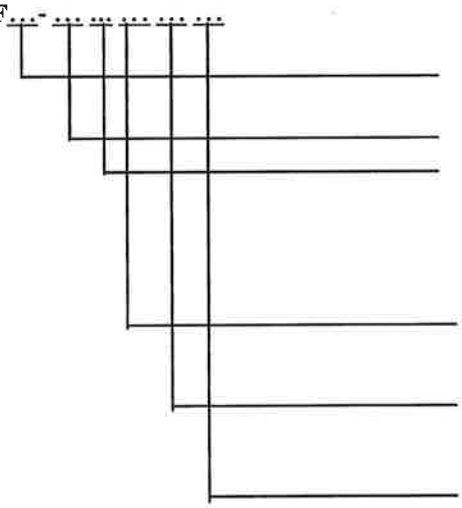
R with Fresnel
-- without Fresnel

Model: 1, 2
Light color:
B – blue
G – yellow
R – red
V – green
Supply:
230 Vac

1 – Single circuit
2 – Double circuit

Mod XLF-3

XLF...-



Protection mode: -- per Ex-d,
E per Ex-de

Model: 3
Light color:
B – blue
G – yellow
R – red
V – green
Supplì :
260Vac
12Vdc
F –Fixed
L - Flashing

1 – Single circuit
2 – Double circuit

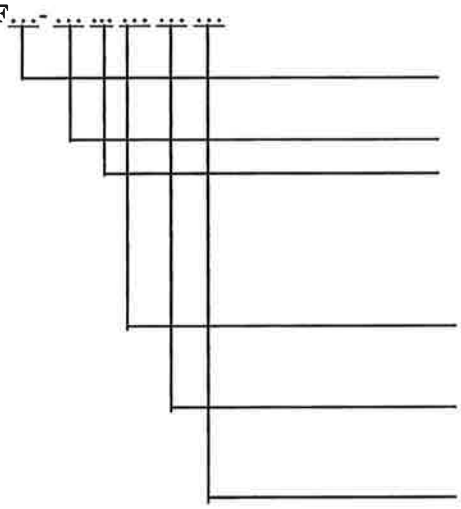
EXTENSION n. 02/11

to EC-Type Examination Certificate CESI 03ATEX046

Equipment identification and description (follows)

Mod XLF-4

XLF...- ... ...



Protection mode: – per Ex-d,
E per Ex-de

Model: 4

Light color:
B – blue
G – yellow
R – red
V – green

Supplì :
120 ÷ 277 Vac

24V dcF –Fixed
L - Flashing

1 – Single circuit
2 – Double circuit

The XLF.. series equipments can be realized with protection mode "Ex de" by means of a "Ex-e" terminal box added on the ceiling fixture of the "Ex d" lamp compartment. The cable passage between the "Ex d" and the "Ex e" compartment is made by means a special certified bushing..

.

The new model XLF-4, realized with protection modes "EX de" (XLF-4) and "Ex e" (XLFE-4) use as source of light a new generation of LED supplied by an electronic convertor.

Electrical Characteristics

Equipment	With Xenon lamp		With LED	
Model	XLF - 1	XLF - 2	XLF - 3	XLF - 4
Rated Voltage	230 Vac		260 Vac 12 Vdc	120 - 277 Vac 24 Vdc
Rated Power	25 W		20 W	10 W
Rated frequency	50-60 Hz			
Flash energy	5 – 6 J	10 - 16 J		
Ambient Temperature	- 20 ÷ 40 °C; - 20 ÷ 55 °C; - 50 ÷ 40 °C; - 50 ÷ 55 °C;			
Degree of protection	IP 66			

The accessories used for cable entries and for closing unused apertures shall be separately certified in compliance with the EN 60079-0 (2009), EN 60079-1 (2007), EN 60079-7 (2009), EN 60079-31 (2009) Standards and ensure a degree of protection IP66. Appropriate cable shall be used in accordance with EN 60079-14

EXTENSION n. 02/11

to EC-Type Examination Certificate CESI 03ATEX046

Temperature Class and max. Surface Temperature

Equipment type	temperature class		Max. Superface Temp.	Max. Superface Temp.
	(Ta + 40 °C)	(Ta + 55 °C)	(Ta + 40 °C)	(Ta + 55 °C)
XLF-1	T6	T5	72	87
XLF-2	T6	T5	72	87
XLF-3	T6	T6	63	78
XLF-4	T6	T6	52	67

Warning label

"Do not open when energized.
After de-energized delay 20 minutes before opening"

For boxes with temperature class T5
" Use cables suitable for a temperature of 100 °C"

Report n° EX- B1029376

Routine tests
The manufacturer shall carry out the routine tests prescribed at par. 27 of the EN 60079-0 Standard.
The manufacturer shall carry out the overpressure routine tests, with the static method (par. 15.1.3.1 of EN 60079-1 Standard), at the following pressure values:

for Ta ≥ - 20 °C
- 15,6 bar

for Ta ≥ - 55 °C
- 23.9 bar

The routine dielectric test shall be carried out, for "Ex e" junction box, in compliance with clause 7.2 of IEC 60079-7 standard with an applied voltage of 2U + 1000V with a minimum of 1500 V. (U = rated voltage of the lamp)

Descriptive documents (prot. EX- B1029380)

- Technical Note A4-5529 (7 pg.)	Rev. 00	dated	01/04/2011
- Drawing n° A3-5528 (5 sheets)	Rev. 00	dated	01/04/2011
- Drawing n° A3-4361	Rev. 00	dated	20/02/2003
- Safety Instruction F-243 (6 pg.)	Rev. 02	dated	01/04/2011
- CE Declaration of Conformity n° 0110		dated	01/04/2011

One copy of all documents is kept in CESI files.

Essential Health and Safety Requirements
The Health and Safety Requirements are assured by compliance with the following Standards:

- EN 60079-0 : 2009 Explosive atmospheres. Part 0: General requirements
- EN 60079-1 : 2007 Explosive atmospheres. Part 1: Flameproof enclosures "d".
- EN 60079-7: 2007 Explosive atmospheres. Part 7: Increased safety "e"
- EN 60079-31: 2009 Explosive atmospheres. Part 31: Equipment dust ignition protection by enclosure "t"