

# CESI

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Codice fiscale e numero  
iscrizione C.C.I.A.A. 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

# CERTIFICATE



## EC-TYPE EXAMINATION CERTIFICATE

- [1] **Equipment or Protective System intended for use in potentially explosive atmospheres**  
Directive 94/9/EC
- [2] EC-Type Examination Certificate number:  
**CESI 03 ATEX 098**
- [3] Equipment: **Lighting fixtures series EVF and EVFC.**
- [4] Manufacturer: **COR.TEM S.p.A.**
- [5] Address: **Via Aquileia 10, Villesse (Gorizia) - Italy**
- [6] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [7] 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-A3/016736.
- [8] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN 50014: 1997 + A1:A2    EN 50018: 2000 + A1    EN50019: 2000  
EN 50281-1-1: 1998 + A1**
- [9] 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.
- [10] 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.
- [11] The marking of the equipment or protective system shall include the following:

**II 2 GD EEx d IIC T6, T5 IP66 T 85°, T 100°  
II 2 GD EEx de IIC T6, T5 IP66 T 85°, T 100°**

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

Date 14 May 2003 - Translation issued the 14th May 2003

Prepared  
Tiziano Cola

Verified  
Mirko Balaz

Approved  
Ulisse Colombo

**CESI**

CENTRO ELETTRONTECNICO SPERIMENTALE ITALIANO  
Business Unit Certificazione  
Di Responsabile

[13]

## Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 03 ATEX 098**

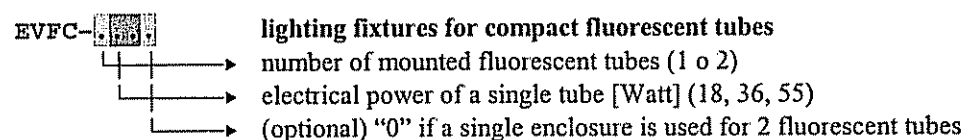
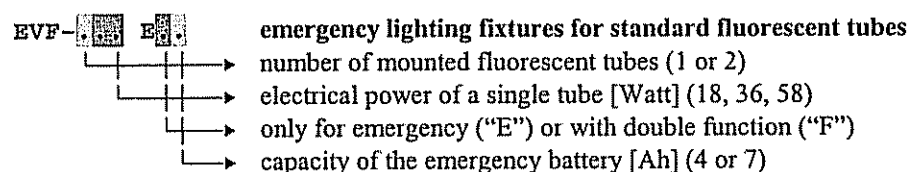
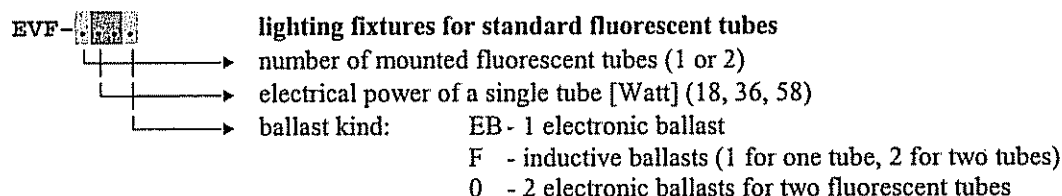
[15] **Description of equipment**

The enclosure of the lighting fixtures series EVF and EVFC are made up of three compartments joint together by means of particular cable passages which are integrant part of this certificate:

1. compartment for the ballast (electronic or inductive), execution EEx d
2. compartment for the terminals junction, execution EEx d or EEx e
3. compartment for the fluorescent tubes standard or compact, execution EEx d

For the usage as emergency lighting, the safety switch and the electronic inverter are mounted inside the ballast compartment while the rechargeable battery group, with the signalling led, are placed inside an adjacent compartment, execution EEx e.

The lighting fixtures series EVF and EVFC are defined through a code formed of the following fields (the coding is fully described on the attached drawings):



### models list

#### Lighting fixtures for standard fluorescent tubes

- With inductive ballast
  - EVF-118F, EVF-136F, EVF-158F (1 fluorescent tube)
  - EVF-218F, EVF-236F, EVF-258F (2 ballasts per 2 fluorescent tubes)
- With electronic ballast
  - EVF-118EB, EVF-136EB, EVF-158EB (1 fluorescent tube)
  - EVF-218EB, EVF-236EB, EVF-258EB (1 ballast for 2 fluorescent tubes)
  - EVF-2180, EVF-2360, EVF-2580 (2 ballasts for 2 fluorescent tubes)
- With emergency group and electronic ballast (only emergency use)
  - EVF-118EE4, EVF-136EE4, EVF-158EE4 (4 Ah batteries)
  - EVF-118EE7, EVF-136EE7, EVF-158EE7 (7 Ah batteries)
- With emergency group and electronic ballast (normal and emergency use)
  - EVF-118EF4, EVF-136EF4, EVF-158EF4 (1 fluorescent tube and 4 Ah batteries)
  - EVF-218EF4, EVF-236EF4, EVF-258EF4 (2 fluorescent tubes and 4 Ah batteries)
  - EVF-118EF7, EVF-136EF7, EVF-158EF7 (1 fluorescent tube and 7 Ah batteries)
  - EVF-218EF7, EVF-236EF7, EVF-258EF7 (2 fluorescent tubes and 7 Ah batteries)

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## Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 03 ATEX 098**

Lighting fixtures for compact fluorescent tubes (only with electronic ballast)

EVFC-118, EVFC-136, EVFC-155	(1 compact tube)
EVFC-218, EVFC-236, EVFC-255	(2 compact tubes in two enclosures)
EVFC-2180, EVFC-2360, EVFC-2550	(2 compact tubes in the same enclosure)

### Electrical characteristics

Rated voltage:	110/230 V (AC/DC)
Rated frequency:	50 ÷ 60 Hz
Rated power:	1 x 18 W (models EVF. 118 ...)
	1 x 36 W (models EVF. 136 ...)
	1 x 58 W (models EVF. 158 ...)
	2 x 18 W (models EVF. 218. ...)
	2 x 36 W (models EVF. 236. ...)
	2 x 58 W (models EVF. 258. ...)
	1 x 55 W (models EVFC 155)
	2 x 55 W (models EVFC 255.)

### Protection

IP 66 (EN 60529: 1997)	
For the models EVFC ...	
Environment temperature	-20 °C ÷ +40 °C
Category 2G - Temperature class:	T 5
Category 2D - Maximum surface temperature:	T 100°
For the models EVF ... with electronic ballast	
Environment temperature:	-20 °C ÷ +50 °C
Category 2G - Temperature class:	T 5
Category 2D - Maximum surface temperature:	T 100°
For the models EVF ... with electronic ballast	
Environment temperature:	-20 °C ÷ +50 °C
Category 2G - Temperature class:	T 6
Category 2D - Maximum surface temperature:	T 85°

### Cables entry

The accessory used for the cable entries and unused bores closing shall be object of separate certification:

- execution EEx d, in accordance to the standard EN 50014 and EN 50018, for the lighting fixtures in execution EEx d II C;
- execution EEx e, in accordance to the standard EN 50014 and EN 50019, for the lighting fixtures in execution EEx de II C;

The accessory shall be certificated in accordance to the standard EN 50281-1-1 and guarantee a minimum level of protection IP 66 in accordance to the standard EN 60529.

### Warning label

When the temperature at the cable entry point is higher than 70 °C, suitable heat resisting cables shall be used.

[16] **Report n. EX-A3/016736**

### Routine tests

The manufacturer shall carry out the routine tests prescribed at paragraph 24 of the EN 50014 standard, at paragraph 16 of the EN50018 and at paragraph 7 of EN 50019.

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## Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 03 ATEX 098**

The manufacturer is exempted from the overpressure test on the ballast compartments and terminals compartments (execution EEx d), since they overcame the test, static method, at a pressure equal to 4 times la corresponding reference pressure (34 bar, the ballast compartment, 24 bar, the terminals compartment).

For the fluorescent tube compartments, the overpressure test shall be carried out, in accordance to the paragraph 15.1.3.1 of the standard EN 50018, with static method, at a pressure of 11.5 bar.

For the lighting fixtures having the terminal compartment in execution EEx e (increased safety), the electric strength test shall be carried out at a voltage of 1500 V.

**prot. EX-A3/016741 (attached to this certificate)**

- drawing n. A1-4411 (1 sheet A1 format)	dated	20.02.2003
- drawing n. A1-4412 (1 sheet A1 format)	dated	20.02.2003
- drawing n. A1-4453 (1 sheet A1 format)	dated	20.02.2003
- drawing n. A1-4461 (1 sheet A1 format)	dated	20.02.2003
- drawing n. A3-4361 (1 sheet A3 format)	dated	20.02.2003
- drawing n. A3-4524 (1 sheet A3 format)	dated	20.02.2003
- drawing n. A3-4525 (1 sheet A3 format)	dated	20.02.2003
- drawing n. A3-4526 (1 sheet A3 format)	dated	20.02.2003
- drawing n. A4-4551 (2 sheets A4 format)	dated	20.02.2003
- drawing n. A4-4552 (1 sheet A4 format)	dated	20.02.2003
- EC declaration of conformity n° 0040 (1 sheet)	dated	20.02.2003
- Safety Instructions, use and maintenance (9 sheets)	dated	20.02.2003
- Technical note (3 sheets)	dated	20.02.2003

One copy of all the documents above mentioned is kept in CESI files.

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

None.

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

Covered by standards fulfilment.