# **CESI**

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# Schema di certificazione CHES CHES



# CERTIFICATE



EC-TYPE EXAMINATION CERTIFICATE

Equipment or Protective System intended for use in potentially explosive atmospheres

Directive 94/9/EC

[3] EC-Type Examination Certificate number:

### **CESI 12 ATEX 028**

[4] Equipment: Lighting fixtures type EXEL-V...S

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

[6] Address: Via Aquileia 10, I-34070 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-B2018026.

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

EN 60079-0: 2012 EN 60079-1: 2007 EN 60079-7: 2007 EN 60079-18: 2009 EN 60079-31: 2009

[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:

Ex H 2GD
Ex e mb HC T4 Gb
Ex tb HIC T70°C Db
HP66

II 2GD Ex de mb IIC T4 Gb Ex tb IIIC T70°C Db IP66 II 2GD
Ex de IIC T4 Gb
Ex tb IIIC T70°C Db
IP66

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Date 13.09.2013 - Translation issued the 13<sup>th</sup> September 2013

Prepared Mirko Balaz

Page 1/4

Approved
Figrenzo Bregani
S.p.A.

Testing & Certification Division
Business Area Certification

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### [14] EC-TYPE EXAMINATION CERTIFICATE n. CESI 12 ATEX 028

### [15] Description of equipment

The lighting fixtures series EXEL-V...S are assembled in one increased safety housing made in stainless steel and with a transparent part made in tempered glass hinged and locked by clips in the two long sides to the body. One silicon gasket between body and transparent part guarantees the IP66 protection degree.

The lighting fixtures containing the electrical and electronic apparatus, that are mounted on internal mounting plate made in stainless steel, on the front side there are installed lamp-holders for fluorescent tubes connection, on the rear side are installed electronic ballast, terminals, electronic inverter and battery pack (for emergency working version). All components are covered with the own component certificates.

The internal mounting plate is fixed on two points to the body of lighting fixture by two stainless steel bushing, that allows the rotation of the mounting plate for an easy access to the electrical devices. It is locked to the body by two stainless steel screw.

The lock system is made by metal clips that close the transparent glass part on the body.

The luminaires series EXEL-V...S are suitable for use of tubular fluorescent lamps with bi-pin cap G13. Each types of lighting fixtures can have following operation system:

- for normal working
- for normal + emergency working
- for emergency working only.

### Model Identification:

The luminaries series EXEL-V...S for normal service with electronic ballast are identified by a code as follows:

EXEL-V -	
	Code of the series
	Number of lamps:  1 for one fluorescent tube 2 for two fluorescent tubes mounting
	Lamp power: 18 for 18W fluorescent tube 36 for 36W fluorescent tube
	S for stainless steel material

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[13]	•	Schedule
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# [14] EC-TYPE EXAMINATION CERTIFICATE n. CESI 12 ATEX 028

The luminaries series EXEL-V...S with emergency operations are identified by a code as follows:

EXEL-V -	
	Code of the series
	Number of lamps: 1 for one fluorescent tube 2 for two fluorescent tubes mounting
	Lamp power: 18 for 18W fluorescent tube 36 for 36W fluorescent tube
•.	Type of use:  EF for normal+emergency working  EE for emergency working only
	Battery capacity: 4 for 4Ah 7 for 7Ah
	S for stainless steel material

### Electrical characteristics

Nominal wattage:

1x18W, 1x36W, 2x18W or 2x36W

Nominal voltage:

110/230/240Vac 110/230/240 Vdc 99÷264Vdc

Voltage range:

99÷264Vac

Frequency:

50/60Hz

Number of lamps:

1 or 2 fluorescent pipes T8 with socket G13

NiCd battery voltage:

6V

NiCd battery capacity:

4Ah or 7Ah

Ingress protection:

IP 66 (EN 60529)

Lighting fixture type	Ambient temperature	Temperature class	Max. surface temperature	Notes	
EXEL-VS	-40°C ÷ +50°C	T4	T70°C	None	
EXEL-VEFS EXEL-VEES	-20°C ÷ +40°C	T4	T70°C	Valid for lighting fixtures with batteries	

[13] Schedule

### [14] EC-TYPE EXAMINATION CERTIFICATE n. CESI 12 ATEX 028

### Warning label

For all lighting fixtures:

"Warning - Do not open when energized"

For lighting fixtures with emergency unit:

"Do not open when an explosive gas atmosphere may be present"

### Installation conditions

The accessories used for cable entries and for closing unused openings shall be certified according to EN 60079-0, EN 60079-7 and EN 60079-31 standards. A minimum degree of protection IP66 shall be guaranteed according to EN 60529 standard.

The coupling between the cable glands and plugs and the lighting fixture shall be provided using a gasket and locknut.

### [16] Report n. EX-B2018026

### Routine tests

On Lighting fixtures type EXEL-V...S the dielectric test with applied voltage shall be performed (according to clause 7.1 of the EN 60079-7) at 1,5 KV between the terminals and earth.

## Descriptive documents (prot. EX-B20118031)

- n. A4-5453	Technical note	(7 pages)	Rev. 0	dated	05.06.2013
- n, F-349	Safety, maintenance and mounting instructions (	9 pages)	Rev. 0	dated	05.06.2013
- n. N°0097	Example of declaration of conformity		Rev. 0	dated	05.06.2013
- n. A1-5294	Drawing - Lighting fixtures series EXEL-VS		Rev. 0	dated	05.06.2013
- n. A3-5454	Drawing - Details for lighting fixtures EXEL-V	S (4 pages)	Rev. 0	dated	05.06.2013
- n. C-134	Datasheets of materials	(42 pages)	Rev. 0	dated	05.06.2013

One copy of all documents is kept in CESI files.

### [17] Special conditions for safe use

None.

# [18] Essential Health and Safety Requirements

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

- EN 60079-0: 2012 Electrical apparatus for explosive atmospheres Part 0: general requirements.
- EN 60079-1: 2007 Explosive atmosphere Part 1: equipment protection by explosion proof "d".
- EN 60079-7:2007 Explosive atmospheres Part 7: Equipment protection by increased safety "e"
- EN 60079-18:2009 Explosive atmospheres Part 18: Equipment protection by encapsulation "m"
- EN 60079-31:2009 Explosive atmospheres Part 31: Equipment dust ignition protection by enclosure "t"

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