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Schema di certificazione

CESI-ATEX

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

[2] **Equipment or Protective System intended for use
in potentially explosive atmospheres
Directive 2014/34/EU**

[3] Supplementary EU-Type Examination Certificate number:

CESI 03 ATEX 200 /03

[4] Product: **Floodlights SLEE series**

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

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

[7] This supplementary certificate extends EC-Type Examination Certificate CESI 03 ATEX 200 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 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-B8010505.

[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] 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 EU-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 2014/34/EU. 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 Ex db eb IIB+H₂ T3 to T2 Gb
Ex tb IIIC T168°C to T209°C Db
IP66/67
or
 II 2 GD Ex db eb IIB T3 to T2 Gb
Ex tb IIIC T168°C to T209°C Db
IP66/67

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Date 2018.05.14 - Translation issued the 2018.05.14

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Schedule

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 03 ATEX 200 /03**

[15] **Description of the variation to the product**

- Updating to standards EN 60079-0 :2012+A11 :2013, EN 60079-1 :2014, EN 60079-7 :2015 and EN 60079-31 :2014.
- Additional marking for different ambient temperature +52°C and +53°C were added.
- The floodlights series SLEB-25/15, SLEB-25 and SLEE-40/25 were removed from the certificate.

Description of equipment

The floodlights **SLEE-40** series is made with the body in aluminium alloy or stainless steel and the transparent part in glass. On these floodlights different types of lamps can be mounted: mercury vapours, high pressure sodium or metal halide lamps, all with E40 socket lamp-holder type.

The floodlights **SLEE-40** series is made in two separate compartments, one flameproof housing containing lamp holder and lamp and another one containing the terminal blocks (terminal box in Ex eb execution). The two housings are connected through a certified bushing type TP16 Ex db IIC manufactured by Cortem with CESI 01 ATEX 080U certificate.

The electrical control apparatus (Ballast, ignitor, capacitor) are installed into floodlights flameproof housing side, which are fixed on the bottom of the enclosure, under the lamp reflector shield.

For floodlights suitable for 400W high pressure sodium lamps and metal halide lamps, the capacitor and the ignitor can be installed in a separate flameproof housing mounted on the bottom of the floodlight and connected through a sealed nipple. Separate Cortem enclosure type SA-59.II is CESI 03 ATEX 059U certified, the Cortem sealed nipple type NPS25I is CESI 01 ATEX 080U certified.

The accessories used for cable entries and for closing unused openings shall be certified according to the EN 60079-0, EN 60079-1, EN 60079-7 and EN 60079-31 Standards and shall guarantee an IP66/67 degree of protection.

Electrical characteristics

	Model SLEE-40		
	Mercury vapours lamps (Hg)	High pressure sodium lamps (Na)	Metal halide lamps (Ha)
Rated voltage	110 ÷ 480 VAC	110 ÷ 480 VAC	110 ÷ 480 VAC
Rated frequency	50/60 Hz	50/60 Hz	50/60 Hz
Rated power	Up to 400 W	Up to 400 W	Up to 400 W

Degree of protection (EN 60529):

IP 66 / 67.

Ambient temperature ranges (all executions):

- 20°C ÷ + 40°C ; - 25°C ÷ + 55°C.

Gas Group IIB applications only:

- 50°C ÷ + 40°C ; - 50°C ÷ + 55°C.

The temperature class and Maximum surface temperature T of the units is a function of the maximum power dissipated in the inside of the enclosure and of the maximum ambient temperature as specified in the Tables 1 and 2 below and in the manufacturer documentation.

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Cable entries

The accessories used for cable entries and plugs for not used holes shall be subject of separate certification, suitable for type of enclosure execution, according to the applicable standards.

Warning label

“Warning – Do not open when energized”.

“Wait 15 minutes before opening”.

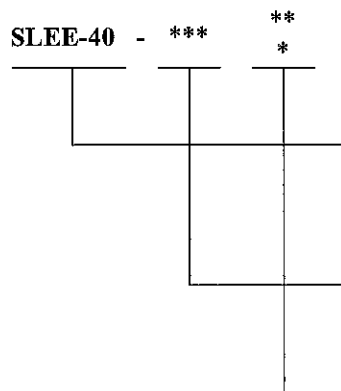
“Use cables suitable for a minimum temperature of T_c °C” where T_c has the value of:

- 85°C for models with max. ambient temperature of +40°C;

- 100°C for models with max. ambient temperature > +40°C up to +55°C.

“Use screws of quality A2-70 (or A4) R 700N/mm² UNI EN ISO 3506 (UNI 7323)”.

Identification of floodlights SLEE-40:



Code that identifies the series 40

Type of control gear

- F0, F1, F4, F5, F6 (up to 400W Hg)

- N0, N1, N4, N5, N6 (up to 400W Na)

- IM0, IM1, IM4, IM5, IM6 (up to 400W Ha)

Other suffix can be added on the code for different rated voltage, different type of thread on incoming entries on Ex e box etc.

Table 1. Temperature Class and Maximum Surface Temperature for floodlights SLEE-40 series in Ambient Temperature up to + 40 °C; + 55 °C

Model	Lamp	Temperature Class		Max. surface Temperature	
		for Ta +40°C	for Ta +55°C	for Ta +40°C	for Ta +55°C
SLEE-40	250 W Hg	T3	T3	153 °C	168 °C
	250 W Na	T3	T3	153 °C	168 °C
	250 W Ha	T3	T3	150 °C	165 °C
	400 W Hg	T3	T2	187 °C	201 °C
	400 W Na	T3	T2	187 °C	201 °C
	400 W Ha	T3	T3	176 °C	191 °C
SLEE-40 (277V)	400 W Hg	T3	T2	188 °C	203 °C
	400 W Na	T3	T2	188 °C	203 °C
	400 W Ha	T3	T2	188 °C	203 °C
SLEE-40 (480V)	400 W Hg	T3	T2	194 °C	209 °C
	400 W Na	T3	T2	194 °C	209 °C
	400 W Ha	T3	T2	194 °C	209 °C

NOTE:

Hg mercury vapours lamp;

Na high pressure sodium lamp;

Ha metal halide lamp.

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[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 03 ATEX 200 /03**

Additional marking for different Ambient temperatures and depending on mounting angulation of these floodlights SLEE-40 are admitted as below:

Table 2. Temperature Class and Maximum Surface Temperature for floodlights SLEE-40 series in Ambient Temperature up to + 52 °C; + 53 °C

Model	Max. power consumption	Temperature Class		Max. surface Temperature	
		for Ta +52°C	for Ta +53°C	for Ta +52°C	for Ta +53°C
SLEE-40	400 W	T3	T3	198 °C	199 °C
SLEE-40 (277V)	400 W	T3 (*)	T3 (*)	184 °C (*)	185 °C (*)
		T2 (**)	T2 (**)	200 °C (**)	201 °C (**)

NOTE:

(*) floodlight installed in vertical position up to 45°C angulation;

(**) floodlight installed in horizontal position and light directed to down.

For lamps from 50W up to 250W refer to temperatures of 250W lamps.

[16] **Report n. EX-B8010505.**

Routine tests

The manufacturer shall carry out the routine tests below.

The routine dielectric test on the Ex eb enclosures with applied voltage shall be performed at $2U + 1000V$ with a minimum value of 1500V (U = rated voltage of the lamp).

The routine overpressure test on the Ex db enclosures shall be carried out with the static method (Clause 15.2.3.2 of IEC 60079-1 Standard) at 15.6 bar.

[17] **Special conditions for safe use (X)**

None.

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Schedule

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 03 ATEX 200 /03**

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

Compliance with the Essential Health and Safety Requirements has been assured by compliance to the following standards:

- EN 60079-0: 2012 Explosive atmospheres – Part 0: Equipment - General requirements;
- EN 60079-0/A11: 2013 Explosive atmospheres – Part 0: Equipment - General requirements;
- EN 60079-1: 2014 Explosive atmospheres – Part 1: Equipment protection by flameproof enclosure “d”;
- EN 60079-7: 2015 Explosive atmospheres – Part 7: Equipment protection by increased safety “e”;
- EN 60079-31: 2014 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure “t”.

[19] **Descriptive documents (prot. EX- B8010513).**

- Technical note A4-5942 (5 pg.) rev.1 dated 2017.11.24
- Safety, maintenance and mounting instructions F-281 (9 pg.) rev.4 dated 2017.11.24
- EU Declaration of Conformity FACSIMILE no. 0042 (pg. 1) dated 2017.05.15
- Drawing A1-5943 (1 sheet) rev.0 dated 2017.11.24
- Datasheet of materials (7 pg.) rev.0 dated 2017.11.24

One copy of all documents is kept in CESI files.

Certificate history

Issue nr	Issue Date	Summary description of variation
03	2018.05.14	Updating to standards EN60079-0:2012+A11:2013, EN60079-1:2014, EN60079-7:2015 and EN60079-31:2014. Additional marking for different ambient temperature +52°C and +53°C were added. The floodlights series SLEE-25/15, SLEE-25 and SLEE-40/25 were removed from the certificate
02	2008.05.07	Constructional modifications. New minimum ambient temperature up to -50°C for floodlights in Ex de IIB execution. New IP 67 degree of protection. New supply voltages of 240V and 250V.
01	2006.12.18	Updating to standards EN60079-0:2006, EN60079-1:2004, EN60079-7:2006, EN61241-0:2006 and EN61241-1:2004. New ambient temperature of +55°C. New execution IIB+H ₂ . New voltage range of 277V.
00	2003.07.27	First Issue of the Certificate.

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