



IECEX Certificate 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 18.0003X Issue No: 0 Certificate history:
Issue No. 0 (2018-03-19)

Status: **Current** Page 1 of 3

Date of Issue: **2018-03-19**

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

Equipment: **Floodlights series SLEE-40.**
Optional accessory:

Type of Protection: **Flameproof enclosures 'd'; Increased safety 'e', Dust Ignition protection 't'**

Marking:
Ex db eb IIB+H2 T3 or T2 Gb
Ex db eb IIB T3 or T2 Gb
Ex tb IIIC T150°C to T209°C Db
IP66/67

Approved for issue on behalf of the IECEx
Certification Body:

Mirko Balaz

Position:

Head of IECEx CB

Signature:
(for printed version)

Date:

19-3-2018

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 Piccin)



IECEX Certificate of Conformity

Certificate No: IECEX CES 18.0003X

Issue No: 0

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Page 2 of 3

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 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/ExTR18.0003/00

Quality Assessment Report:

IT/CES/QAR06.0002/12



IECEX Certificate of Conformity

Certificate No: IECEx CES 18.0003X

Issue No: 0

Date of Issue: 2018-03-19

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The floodlights SLEE-40 series are 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 are 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 IECEx CES 10.0003U certificate.

For further information see Annex.

SPECIFIC CONDITIONS OF USE: YES as shown below:

The flamepaths are specified in the manufacturer drawings. For information regarding the dimensions of the flameproof joints the manufacturer shall be contacted.

Annex:

IECEX CES 18.0003X Issue 0 ANNEX- Floodlight SLEE-40.pdf



IECEX Certificate of Conformity



Prot: B8006083

Annex to certificate: IECEx CES 18.0003X Issue No.:0 of 2018-03-19
Applicant: CORTEM S.p.A., Via Aquileia 10,
 I - 34070 Villesse (GO), Italy
Electrical Apparatus: Floodlights, series SLEE-40

Description of the equipment:

The floodlights **SLEE-40** series are 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 are 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 IECEx CES 10.0003U 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-59.1I is certified IECEx CES 15.0012U, the Cortem sealed nipple type NPS25I is certified IECEx CES 10.0003U.

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 (IEC 60529): IP 66 / 67.

Ambient temperature ranges:

For 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.

Prot: B8006083

Annex to certificate:
Applicant:

IECEX CES 18.0003X Issue No.:0 of 2018-03-19
CORTEM S.p.A., Via Aquileia 10,
I - 34070 Villesse (GO), Italy
Electrical Apparatus: Floodlights, series SLEE-40

Identification of floodlights SLEE-40:

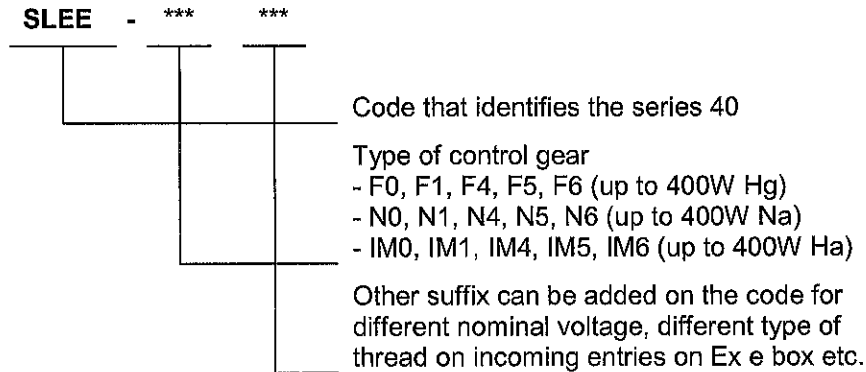


Table 1. Temperature Class and Maximum Surface Temperature for floodlights SLEE-40 in Ambient Temperature up to + 40 °C; + 55 °C

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;



IECEX Certificate of Conformity



Prot: B8006083

Annex to certificate: IECEx CES 18.0003X Issue No.:0 of 2018-03-19
Applicant: CORTEM S.p.A., Via Aquileia 10,
 I - 34070 Villesse (GO), Italy
Electrical Apparatus: Floodlights, series SLEE-40

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 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.

Lamps with control gear with lower power rating are admitted considering temperature of upper power rating indicated on the table (for example: for floodlight 100W Na see temperature of 250W Na).

Lamps without control gear like blended lamps are admitted.

Condition of installation

The condition of the installation of the lighting fixtures are included within the safety instructions. In any case, the accessories used for cable entries into enclosures shall be subject of separate certification, suitable for type of protection Ex-d or Ex-e and Ex-tb and guarantee a minimum degree of protection IP66/67 in compliance with the IEC 60529 Standard.

Warning labels

- "Warning – Do not open when energized".*
- "Wait 15 minutes before opening".*
- "Use cables suitable for a minimum temperature of Tc °C" where Tc has the value of:*
 - 85°C for models with max. ambient temperature of +40°C;
 - 100°C for models with max. ambient temperature of +52°C, +53°C, +55°C.
- "Use screws of quality A2-70 (or A4) R 700N/mm2 UNI EN ISO 3506 (UNI 7323)".*



IECEX Certificate 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 TSA 08.0011 issue No.:2

Status: **Current**

Date of Issue: **2013-05-03**

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Certificate history:
Issue No. 2 (2013-5-3)
Issue No. 1 (2010-10-22)
Issue No. 0 (2008-12-19)

Applicant: **Cortem SpA**
Via Aquileia 10
34070 Villesse (Go)
Italy

Electrical Apparatus: **Rectangular Flood Lights Series SLEE**
Optional accessory:

Type of Protection: **Ex de and Ex tD**

Marking: CORTEM or ELFIT
Rectangular Flood Light Types SLEE-40 or SLEE-40/25
Ex d e IIB + H2 T* or Ex tD A21 T* IP65/IP66*
IECEX TSA 08.0011
S/N:
* See schedule in the attached Annexe

Approved for issue on behalf of the IECEx
Certification Body:

Ujen Singh

Position:

Quality & Certification Manager

Signature:
(for printed version)

Date:

03 MAY 2013

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:

TestSafe Australia
919 Londonderry Road
Londonderry NSW 2753
Australia





IECEX Certificate of Conformity

Certificate No.: IECEx TSA 08.0011

Date of Issue: 2013-05-03

Issue No.: 2

Page 2 of 4

Manufacturer: **CORTEM or ELFIT**
Via Aquileia 10
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 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-1 : 2003 Edition: 5	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosure 'd'
IEC 60079-7 : 2006-07 Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
IEC 61241-0 : 2004 Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
IEC 61241-1 : 2004 Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"

*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:

AU/TSA/ExTR06.0070/00
AU/TSA/ExTR08.0071/01

AU/TSA/ExTR08.0028/00
AU/TSA/ExTR08.0071/02

AU/TSA/ExTR08.0071/00

Quality Assessment Report:

IT/CES/QAR06.0002/07



IECEX Certificate of Conformity

Certificate No.: IECEX TSA 08.0011

Date of Issue: 2013-05-03

Issue No.: 2

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Refer to attached Annexe for details.

CONDITIONS OF CERTIFICATION: NO



IECEX Certificate of Conformity

Certificate No.: IECEx TSA 08.0011

Date of Issue: 2013-05-03

Issue No.: 2

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

Refer to attached Annexe for details of the supplementary issues.



IECEx Certificate of Conformity Annexe

Annexe for Certificate No.:	IECEx TSA 08.0011	Issue No.:	2
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Equipment:

The floodlights series SLEE is made with the base body in aluminium alloy or stainless steel and the light transmitting part is glass cemented to the cover.

The assembly comprise of main body containing the lamp, holder and ballast, and two separate compartments, an integral increase safety (Ex e) terminal box containing the Ex e terminals and an external flameproof (Ex d) junction box containing the starter and capacitor.

A threaded potted nipple bushing is used for communication between the main enclosure and the Ex d junction box. The electrical supply is provided through the threaded entry of the integral junction box and is fed through to the main enclosure via a compression bushing.

The floodlight series SLEE may be fitted with one high pressure sodium vapour or metal halide 250 W (SLEE-40/25) or 400 W (SLEE-40) maximum tubular bulbs.

Schedule:

For 240V 50/60Hz:

- Ex de IIB + H2 T3 or Ex tD A21 T194 °C IP65/IP66 at ambient temperature +40°C
- Ex de IIB + H2 T2 or Ex tD A21 T204 °C IP65/IP66 at ambient temperature +50°C

For 230V 50/60Hz:

- Ex de IIB + H2 T3 or Ex tD A21 T188 °C IP65/IP66 at ambient temperature +40°C
- Ex de IIB + H2 T2 or Ex tD A21 T198 °C IP65/IP66 at ambient temperature +50°C

Conditions of Certification pertaining to Issue 0 of this Certificate:

1. An instruction manual shall be supplied with each Floodlight Series SLEE.

Drawing list pertaining to Issue 0 of this Certificate:

Document No.	Sheets	Document Title	Issue	Date (yyyy/mm/dd)
A1-4466	1	Floodlight Series SLEE-40 Ex de IIB + H ₂ Ex tD A21 T281 °C IP66	2	2006-09-15
A4-817	1	Sealing method for sealed bushing type CP-TP-NPS-NCS-LPS for cables BETA THERM 155 type with size conductors 0.5 mmq	0	2001-02-02
A4-3067L	1	Passaggio sigillato serie NPS per SLEE-40	1	2003-10-21
A4-4353	1	Pressacavo per EV, EW, EVF RLEE, SLEE - STAFFA -	1	2003-11-24
A3-4354	1	Pressacavo - Diaframma	5	2006-05-05
A3-4355	1	Pressacavo - Guarnizione	3	2003-07-09
A3-4361	1	Cable gland for lighting fixtures series EV..EW..EVF..RLEE..SLEE	0	2003-02-20
A4-800	10	Technical note: Sealing bushing type CP - TP - NPS - NCS - LPS on execution Ex d IIC		2001/02/02
F-281	6	Safety, Maintenance and mounting instructions for SLEE... series floodlights Ex de IIB+H2 T2 IP66	2	2006-09-15

Certificate issued by:

<p>Test Safe A U S T R A L I A</p>	<p>TestSafe Australia 919 Londonderry Road Londonderry NSW 2753 Australia</p>
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IECEx Certificate of Conformity Annexe

Annexe for Certificate No.:	IECEx TSA 08.0011	Issue No.:	2
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Schedule of Variations

Variations Permitted by Issue 1:

The nature of the variations to the equipment design is detailed below:

1. Increase the distance between the light bulb and the cover glass, from 15 mm to 50 mm.
2. Upgrade the Temperature Class of the equipment, from T2 to T3, as shown below:

For 240V 50/60Hz:

Ex de IIB + H2 T3 or Ex tD A21 T194 °C IP65/IP66 at ambient temperature +40°C
Ex de IIB + H2 T2 or Ex tD A21 T204 °C IP65/IP66 at ambient temperature +50°C

For 230V 50/60Hz:

Ex de IIB + H2 T3 or Ex tD A21 T188 °C IP65/IP66 at ambient temperature +40°C
Ex de IIB + H2 T2 or Ex tD A21 T198 °C IP65/IP66 at ambient temperature +50°C

3. Update of certification drawings to include details of the variations.

Conditions of Certification pertaining to Issue 1 of this Certificate:

Previous conditions of certification still apply.

Drawing list pertaining to Issue 1 of this Certificate:

Document No.	Sheets	Document Title	Issue	Date (yyyy/mm/dd)
A1-4466	1	Floodlight Series SLEE-40 Ex de IIB + H ₂ T3 Ex tD A21 T194 °C IP66	3	2010-07-14
F-281	6	Safety, maintenance and mounting instructions for SLEE... series floodlights Ex de IIB+H ₂ T2 or T3 IP66	3	2010-10-11

Variations pertaining to Issue 2 of this Certificate:

The nature of the variations to the equipment design is detailed below:

1. Added a new range with voltage of 480V.
2. Update of certification drawings to include details of the variations.

Certificate issued by:





IECEX Certificate of Conformity
Annexe

Annexe for Certificate No.:	IECEX TSA 08.0011	Issue No.:	2
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Conditions of Certification pertaining to Issue 2 of this Certificate:

Previous conditions of certification still apply.

Drawing list pertaining to Issue 2 of this Certificate:

Document No.	Sheets	Document Title	Issue	Date (yyyy/mm/dd)
A1-4466	1	Floodlight Series SLEE-40 Ex de IIB + H ₂ T3/T2 Gb Ex tbD A21 T194 °C IP65/IP66	4	2012-10-11
F-281	7	Safety, maintenance and mounting instructions for SLEE... series floodlights Ex de IIB+H2 T2 or T3 IP66	4	2012-10-05

Certificate issued by:

	Test Safe Australia 919 Londonderry Road Londonderry NSW 2758 Australia
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