

# CESI

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

Schema di certificazione

# ATEX CESI

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, D.M. 27/9/2000 e D.M. 02/02/2006

# CERTIFICATE



## [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 09 ATEX 001**

[4] Equipment: Floodlights series RLF/...

[5] Manufacturer: TEPEX d.o.o.

[6] Address: Medarska 69, HR-10090 Zagreb, Croatia

[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-A9001178.

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

**EN 60079-0:2004 EN 60079-1:2004 EN 60079-7 :2003 EN 61241-0:2006 EN 61241-1:2004**

[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 2G Ex de IIC T4 or T3; Ex d IIC T4 or T3**

**II 2D Ex tD A21 IP 66 T130°C or T190°C**

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

**Date** 16 January 2009 - Translation issued the 16 January 2009

**Prepared**  
Mirko Balaz

**Approved**  
Fiorenzo Bregani

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

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## Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE n. CESI 09 ATEX 001

[15] **Description of equipment**

The floodlights series RLF/... are made of one Exd "flameproof enclosure" chamber, in which are placed light source, internal reflector with lamp-holder (coupler), ballast, capacitor or ignitor (depending on lamp type). The enclosure is made of corrosion resistant grey polyurethanes painted aluminium alloy with cemented high quality borosilicate glass tube. On the floodlights different types of lamps can be mounted: high pressure sodium, mercury vapour lamp, metal halide lamps or induction lamps.

The floodlights series RLF/... are made in different execution:

- RLF/... HIT,HST,HME with type of protection Ex d IIC,
- RLF/... HIT,HST,HME with type of protection Ex de IIC with Ex de adapter ADP 03/23,
- RLF/... QL with type of protection Ex de IIC with separate Ex e chamber,
- All models with type of protection Ex tD A21 IP66.

When separate Ex-e chamber (terminal box) is added to the flameproof body then two chambers are connected through special multi-core bushing.

### Electrical characteristics

Rated voltage:	RLF/... HIT,HST,HME	230/240V (+6% / -10%); 50 Hz
	RLF/... QL	230V (200...277V); 50/60 Hz or 190-264V DC
Rated power		85 ÷ 400 W (the rated power of each type of lamp is indicated in detail in the following table 1)
Degree of protection (EN 60529)		IP 66
Ambient temperature		- 20 ÷ + 40 °C

Temperature class of the floodlights of category II 2 G: T4, T3 (see table 1).

Maximum surface temperature T of the floodlights of category II 2 D: from T 130°C to T190°C (see table 1).

### Cable entries

The accessories used for cable entries and for unused holes shall be certificate according to following standards:

- EN 60079-0 / EN 60079-7 (degree of protection IP66 at least) for floodlights II 2G Ex de IIC;
- EN 60079-0 / EN 60079-1 (degree of protection IP66 at least) for floodlights II 2G Ex d IIC;
- EN 61241-0 / EN 61241-1 (degree of protection IP66 at least) for floodlights II 2D Ex tD A21.

They shall guarantee a minimum degree of protection IP 66 according to EN 60529 Standard.

If cylindrical threads are used, the coupling between the cable entry and the enclosure shall be provided with block to prevent loosening, according to the requirements indicated in the documents annexed to this certificate.

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## Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE n. CESI 09 ATEX 001

[15] Identification and description of equipment (follows)

Table 1 – TEMPERATURE CLASS AND MAX. SURFACE TEMP. FOR LIGHTING FIXTURES IN AMBIENT TEMPERATURE UP TO +40°C

Model	Type of lamp and power in W	Temperature class (for II 2G luminaries)	Max surface temperature T in °C (for II 2D luminaries)
		+40°C	+40°C
RLF/85 QL	85W QL	T4	130°C
RLF/165 QL	165W QL	T4	130°C
RLF/250 HIT	250W HIT	T4	130°C
RLF/250 HST	250W HST	T4	130°C
RLF/250 HME	250W HME	T4	130°C
RLF/400 HIT	400W HIT	T3	190°C
RLF/400 HST	400W HST	T3	190°C
RLF/400 HME	400W HME	T3	190°C

### NOTES:

The different types of lamps are indicated with the following codes:

HIT: metal halide lamp

HST: high pressure sodium vapour lamp

HME: high pressure mercury vapour lamp

GL: induction lamp

### Warning labels

For floodlights RLF/... QL series:

“Do not open when energized.”

For floodlights RLF/... HIT,HST,HME:

“Do not open when energized. Wait 20 minutes before opening.”

“Use cables suitable for a minimum temperature of 90°C.” (for Ex d execution only)

“Mounting limitation: Only for mounting angled up to 30° from horizontal axis and up to 45° from vertical axis.”

For all floodlights category II 2D:

“Do not open when an explosive dust atmosphere may be present.”

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## Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 09 ATEX 001**

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[16] **Report n. EX-A9001178**

### **Routine tests**

The manufacturer shall carry out the routine tests prescribed at paragraph 27 of the EN 60079-0, at par. 24 of the EN 61241-0, at paragraph 16 of the EN 60079-1 and at paragraph 7 of the EN 60079-7 Standards.

The routine overpressure test on the Ex-d enclosures shall be carried out with the static method according to paragraph 15.1.3.1 of the EN 60079-1 standard at the pressure of 20,3 bar on the lamp compartment

For the floodlights having the terminal compartment in execution Ex e (increased safety) the dielectric test with applied voltage shall be performed at  $2U + 1000$  V with a minimum value of 1500 V between the supply terminals and earth ( $U$  = rated voltage of the lamp).

### **Descriptive documents (prot. EX-A9001182)**

- Technical Description (8 pg.)	dated	12.2008
- n. C 17.01.02.00-1	dated	12.2008
- n. C 17.01.02.00-2	dated	12.2008
- n. C 17.01.02.00-3	dated	12.2008
- n. C 17.01.01.00-1	dated	12.2008
- n. C 17.01.01.00-2	dated	12.2008
- n. C 17.01.01.00-3	dated	12.2008
- n. C 17.01.01.00-4	dated	12.2008
- n. C 17.01.01.00-7	dated	12.2008
- Certified Drawing Description C 17.01.02.00 (4 pg.)	dated	12.2008
- Certified Drawing Description C 17.01.01.00 (5 pg.)	dated	12.2008
- User Manual TEPEX.RS.028 (4 pg.)	dated	16.12.2008
- EC declaration of conformity	dated	02.01.2009

One copy of all documents is kept in CESI files.

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

None.

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

Assured by compliance to the Standards.