

1. **EC-TYPE EXAMINATION CERTIFICATE**
2. **Equipment or Protective System Intended for use in
Potentially explosive atmospheres
Directive 94/9/EC**
3. Reference: **VTT 09 ATEX 002X**
4. Equipment: **Portable Luminaire Assembly**
Certified type: **CentaurSlam Zero LED 3x3W**
5. Manufactured by: **Centaurea Oy**
6. Address: **Kipinätie 1
FI-60510 Hyllykallio
Finland**
7. This equipment or protective system and any acceptable variations thereto is specified in the schedule and possible supplement(s) to this Certificate and the documents therein referred to.
8. VTT, notified body number 0537, in accordance with Article 9 of the Council Directive 94/9/EC of 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 system intended for use in potentially explosive atmospheres given in Annex II to the Directive. The examination and test results are recorded in confidential report no. VTT-S-01199-09.
9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
IEC 60079-0 (2007)
EN 60079-7 (2007)
EN 60079-18 (2004)
EN 60079-26 (2007)
EN 60079-28 (2007)
EN 61241-1 (2004)
EN 61241-18 (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:

Luminaire unit:



II 1 G Ex ma op is IIC T6 Ga
II 1 D Ex t/ma IIC T65°C Da
IP 66/IP67

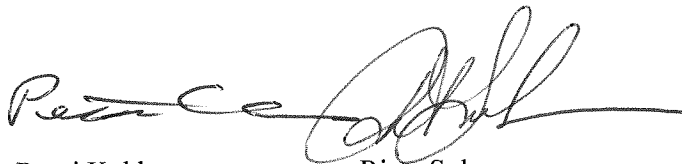
Supply unit :



II 2(1) G Ex e mb IIC T6 Gb
II 2(1) D Ex t IIC T60°C Db
IP 65 or IP 64

Espoo 3.3.2009

VTT , Technical Research Centre of Finland



Pertti Kokkonen
Research engineer

Risto Sulonen
Senior research scientist

13. **Schedule**14. **EC-TYPE EXAMINATION CERTIFICATE VTT 09 ATEX 002X**

15. Description of Equipment

Portable Luminaire Assembly: CentaurSlam Zero LED 3x3 WRated values

Luminary unit	Power	3x 3 W
	Voltage	12 V DC
Supply unit:	Voltage	24 V, 42 V, 110 V AC/DC or 230 V AC
	I_{kmax}	35 A
	Frequency	0 Hz, 50 Hz or 60 Hz

Construction

Portable luminaire assembly consisting of a luminary unit with three LEDs and a supply unit with supply and protection electronics. The LEDs and connections to them have been moulded with silicone rubber. The whole moulded luminary unit is protected with the enclosure made of polycarbonate tube with antistatic rubber endplates. The polycarbonate tube has been treated with a conductive polymer which makes the tube light green. The supply electronic is moulded with silicone rubber and it and Exe-terminals are in an Exe-enclosure, which can be installed in the cable reel with or without the trolley. The whole assembly is fitted with a screened cable for heavy industrial use.

Drawings and documents: Technical file CSZ version 1.0

16. Report No. VTT-S-01199-09.

17. Special conditions for safe use

The supply unit shall not be placed into Zone 0 hazardous area.

18. Essential Health and Safety Requirements

Met by the compliance with the standards referred in point 9.

Espoo 3.3.2009
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Research engineer

Risto Sulonen
Senior research scientist