



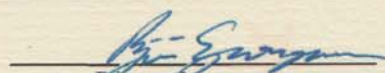
DET NORSKE VERITAS

EC-TYPE EXAMINATION CERTIFICATE

- [2] COMPONENT INTENDED FOR USE IN EQUIPMENT OR PROTECTIVE SYSTEM INTENDED FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES DIRECTIVE 94/9/EC
- [3] EC-Type Examination Certificate Number: **DNV-2008-OSL-ATEX-21658U** Rev. 3
- [4] Component: **Explosion-proof signal lamp module model CZ0202**
- [5] Applicant – Manufacturer or Authorized representative: **CZ EXPLOSION-PROOF ELECTRIC APPLIANCES Co., LTD**
- [6] Address: **No. 1 Qixing Rd, Qixing Town, Nanhu District, Jiaxing City, Zhejiang Province, Postal code: 314 002 China**
- [7] This component and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] DNV, notified body number 0575 in accordance with Article 9 of Council Directive 94/9/EC of 23 March 1994, certifies that this component 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 reports listed in section 14.
- [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 60079-11:2012 and EN 60079-26:2007**
- [10] The sign 'U' placed after the certificate number indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.
- [11] This EC-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified component. If applicable, further requirements of this Directive apply to the manufacturer and supply of this component.
- [12] The marking of the equipment or protective system shall include the following:

 II 2 G Ex d e IIC Gb or
 II 1 G Ex ia IIC Ga

Høvik, 2015-08-17
for Det Norske Veritas AS


Bjørn Spongsveen
Certification Manager



Notice: This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.

The digitally signed and electronically distributed document is the original and valid certificate. Ref.: www.dnv.com/digitalsignatures

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 300,000. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



[13]

Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE No.: DNV-2008-OSL-ATEX-21658U

Rev. 3

Certificate History

Revision	Description	Report no.	Issue date
1	Original certificate	2008-3165	2008-03-31
2	Change cemented material , Non-metallic material of some Parts and specification of voltage	2008-3165	2012-03-23
3	Update to latest standards, modify the mark rating and type etc. information, rated voltage is changed. The Type CZ0202-8 is removed. CZ0202xx0 and 3, 10-28V was added, CZ0202xx0 is certified according "Ex ia".	2008-3165	2015-08-17

[15] Description of component

The CZ0202 explosion-proof signal lamp module with combined type of protection "d", "e" can be installed in hazard area zone 1 and zone 2. Alternatively, CZ0202 with type of protection "ia" can be installed in zone 0, zone 1 and zone 2. For type of protection "d" and "e", the lamp compartment is protected by "d", and terminals are protected by "e". For type of protection "ia", the circuit is intrinsically safe when the input is connected to an ATEX certified safety barrier with specified output parameters that matches the input parameters. The installation method of CZ0202 is divided into two types: board front and board back. Type board front is used to install with rail, type board back is used to install behind panel. For type board front two connection screws for external circuit are in the same direction of the lamp and for type board back type these two screws are in the opposite direction of the lamp. The enclosure of CZ0202 explosion-proof signal lamp module is plastic.

Type Identification

CZ0202..

CZ	02	02	☐	☐	☐	Voltage of signal lamp: 0:10~28V AC/DC (Ex ia) 1:20~250V AC/DC (Ex d e) 2:250~400V AC (Ex d e) 3:10~28V AC/DC (Ex d e) Colour of signal lamp: R=red, W=white, G=green, B=blue, Y=yellow, 0=general Mounting type: 6= Board front type, 7=board back type Design number Year of product development The abbreviation code of Manufacturer name
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Ambient temperature

$-40^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$

Service temperature

$-40^{\circ}\text{C} \leq T_a \leq +90^{\circ}\text{C}$

Degrees of protection (IP Code)

IP20

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EC-TYPE EXAMINATION CERTIFICATE No.: DNV-2008-OSL-ATEX-21658U

Rev. 3

Rating

Rated service voltage, "Ex d e": 10~28V AC/DC, 20~250V AC/DC, 250~400VAC

Input safety parameters for intrinsically safe connection, Group IIC, "Ex ia": U_i : 28V AC/DC, I_i : 93mA, P_i : 0.651W, C_i : 0.01 μ F, L_i : 2.2mH.

Rated Frequency: 0~60Hz(AC/DC); 50~60Hz(AC)

[16] Project No.: PRJC-22747-2007-PRC-RGC

Descriptive Documents

Number	Title	Rev.	Date
5CZ0202.000.001	CZ0202-6□□Explosion-proof signal lamp module	AC	2013-05-16
5CZ0202.000.002	CZ0202-7□□Explosion-proof signal lamp module	AC	2013-05-16
5CZ0202.000.004	CZ0202-A7□□Explosion-proof signal lamp core Body	AC	2013-05-16
5CZ0202.000.005	CZ0202-6□0Explosion-proof signal lamp module	AC	2013-05-16
5CZ0202.000.005.1	CZ0202-□□0 structure diagram	AC	2013-05-16
5CZ0202.000.005.2	CZ0202-□□0 PCB layout	AC	2013-05-16
5CZ0202.000.006	CZ0202-7□0 explosion-proof signal lamp module	AC	2013-05-16
5CZ0202i.002.001~005	Di600.002 chip of signal lamp	AC	2013-05-16
8CZ0202.006.000	D600.003 shell	AC	2013-05-16
8CZ0202.007.001	D600.004-01 protection cover(board front type)	AC	2013-05-16
8CZ0202.011.000	D700.001 shell (board back type)	AC	2013-05-16
8CZ0202.012.004	D700.002.03 protection cover(board back type)	AC	2013-05-16
8CZ0202i.006.000	Di600.003 shell	AC	2013-05-16
8CZ0202i.007.001	Di600.004-01 protection cover(board front type)	AC	2013-05-16
8CZ0202i.011.000	Di700.001 shell(board back type)	AC	2013-05-16
8CZ0202i.012.004	Di700.002-03 protection cover(board back type)	AC	2013-05-16

Routine tests

Dielectric test is conducted according to clause 7.1 in IEC 60079-7:2006.

[17] **Schedule of Limitations**

- For type of protection "Ex d e", the CZ0202 explosion-proof signal lamp module must be installed into a suitably certified enclosure with IP54 at least. When the signal lamp modules are installed in an enclosure of the type of protection Increased Safety "e" in compliance with Standard IEC 60079-7, the clearance and creepage distances according to Section 4.3 and 4.4 and Table 1 must be fulfilled.

- For type of protection "Ex ia", the power supply must be from an appropriate safety barrier with specified output parameters that matches the input parameters. The installation of CZ0202 must be inside an appropriate housing in such a way that the clearance and creepage distances specified in IEC 60079-11 between intrinsically safe and non-intrinsically safe circuits must be complied with. Under the ambient temperature 55°C, the temperature class of CZ0202 with type of protection "Ex ia" is T4.

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

See part 9 of this certificate

END OF CERTIFICATE

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 300,000. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.