



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 12 ATEX 11182U**
- [4] Component: **Explosion-Proof Potentiometer Module CZ0203 Series**
- [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: 2009, EN 60079-1:2007 and EN60079-7:2007
- [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 de IIC Gb -55 °C ≤ Ta ≤ 60 °C**

Høvik, 2012-05-08
for Det Norske Veritas AS

for Marianne Spæren
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 12 ATEX 11182U

Certificate History

Revision	Description	Report no.	Issue date
-	Original certificate	2012-3203	2012-05-08

[15] **Description of component**

The CZ0203 series potentiometer modules are Ex component. The product consists of a cover, a shell which is made of plastic material and Ex e terminal. The cover and shell are consisted of flameproof enclosure with cemented methods; the volume of flameproof enclosure is less than 10cm³.

Type identification

CZ	02	03	<input type="checkbox"/>	<input type="checkbox"/>	Resistance code. Reference the following table
					Mounting type: 6:Board front rail type 7:Board back type A7:Board back type and not installed protection cover locking head
					Design Number
					Year number of product development
					The abbreviation code of manufacturer name

Table of resistance code:

Code	Resistance (Ω)	Code	Resistance (Ω)	Code	Resistance (Ω)	Code	Resistance (Ω)
01	100	02	200	03	500	04	1000
05	2000	06	5000	07	10000	08	20000
09	50000	10	100000	11	200000	12	500000
13	1000000	14	2000000				

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Ambient Temperature:

$-55\text{ }^{\circ}\text{C} \leq T_a \leq 60\text{ }^{\circ}\text{C}$

Parameters relating to the safety

Power Rating :0.1W

Maximum input voltage: 200VDC or power rating, whichever is smaller

End resistance: Max. 3Ω

Standard resistance range :100 Ω to 2M Ω

Degree of protection (IP Code)

IP20

[16] **Project No.:** PRJC-356426-2011-PRC-CHN

Descriptive Documents

Number	Title	Rev.	Date
5CZ0203.000.001	CZ0203-6□ Explosion-proof potentiometer module	-	2011.01.18
5CZ0203.000.002	CZ0203-7□ Explosion-proof potentiometer module	-	2011.01.18
5CZ0203.000.003	CZ0203-A7□ Explosion-proof potentiometer module	-	2011.01.18
8CZ0203.002.000	DW60.002 Flameproof cover	-	2011.01.18
8CZ0203.003.000	K60.003 Adjustment rod	-	2011.01.18
8CZ0203.005.000	DW60.005 shell	-	2011.01.18
8CZ0203.006.000	DW60.006 protection cover(board front type)	-	2011.01.18
8CZ0203.007.000	DW70.001 shell (board back type)	-	2011.01.18
8CZ0203.008.000	DW70.002 protection cover(board back type)	-	2011.01.18

Routine test

-Dielectric strength should be conducted according to clause 7.1 of EN60079-7:2007

[17] **Schedule of limitations**

-Repair of the flameproof joint must be made in compliance with the structural specification provided by the manufacturer. Repairs must not be made on the basis of values specified in tables 1 and 2 of EN/IEC 60079-1.

-The CZ0203 series explosion-proof potentiometer module shall be installed inside a suitable certified enclosure.

-The service temperature specified by the manufacturer is from $-55\text{ }^{\circ}\text{C}$ to $85\text{ }^{\circ}\text{C}$

[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.