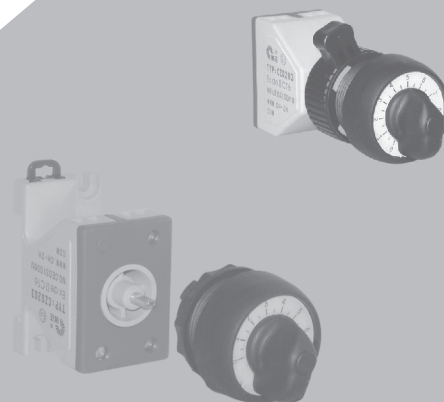




Operating instructions

CZ0203

Explosion-proof control module



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Purpose of these instructions

- Working in hazardous areas, the safety of personnel and plant depends on complying with all relevant safety regulations.
- Assembly and maintenance staff working on installations therefore have a particular responsibility. They require precise knowledge of the applicable standards and regulations.
- These instructions give a brief summary of the most important safety measures. It supplements the corresponding regulations which the staff responsible must study.



SAFETY INSTRUCTIONS

- Use the explosion-proof control module only for its intended purpose.
- Explosion-proof control module are not suitable for Zone 0 hazardous areas!
- Incorrect or impermissible use or non-compliance with these instructions invalidates our warranty provision.
- No changes to the device impairing its explosion protection are permitted.
- Use the explosion-proof control module only if they are clean and undamaged.
- Any damage can invalidate the Ex-protection.
- Observe the following during installation and operation:
 - National safety regulations;
 - National accident prevention regulations;
 - National installation regulations
 - Generally recognized technical regulations;
 - Safety guidelines in these operating instructions;
 - Characteristic values given on the explosion-proof control module.

Conformity to standards

The explosion-proof control module are designed, manufactured and tested in accordance with ISO 9001.

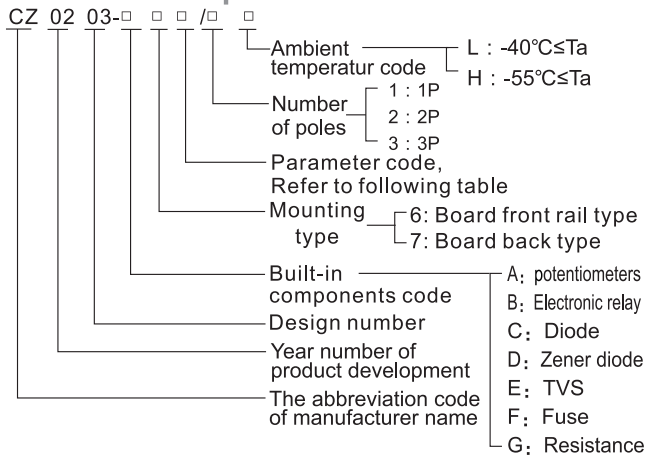
The explosion-proof control module is conformity to the directive 2014/34/EU, ATEX and the following standards:

IEC60079-0 : 2011 EN60079-0 : 2012
IEC60079-1 : 2014 EN60079-7 : 2014
IEC60079-7 : 2015 EN60079-7 : 2015

Applicable scope

The series product can be used to adjust the voltage, current, speed and control etc. in the electrical circuit of electrical equipment, which the max voltage is AC250V/DC300V or below, in the explosive gas atmosphere

Model and implication



CZ0203-A□Series Parameter code

Code	Resistance	Code	Resistance	Code	Resistance	Code	Resistance
01	100	02	200	03	500	04	1,000
05	2,000	06	5,000	07	10,000	08	20,000
09	50,000	10	100,000	11	2,000,000	12	500,000
13	1,000,000	14	2,000,000				

CZ0203-B6□Series Parameter code

Code	Coil Voltage	Code	Coil Voltage	Code	Coil Voltage
01	5V DC	02	6V DC	03	9V DC
04	12V DC	05	18V DC	06	24V DC

CZ0203-C6□Series Parameter code

Code	Max Voltage
01	250V

CZ0203-D6□Series Parameter code

Code	Regulator Voltage	Code	Regulator Voltage	Code	Regulator Voltage	Code	Regulator Voltage
01	5.1V	02	5.6V	03	6V	04	6.2V
05	6.8V	06	7.5V	07	8.2V	08	8.7V
09	9.1V	10	10V	11	11V	12	12V
13	13V	14	14V	15	15V	16	16V
17	17V	18	18V	19	19V	20	20V
21	22V	22	24V	23	25V	24	27V
25	28V	26	30V	27	33V	28	36V
29	39V	30	43V	31	47V	32	51V

CZ0203-E6□Series Parameter code

Code	Max Voltage
01	250V


CZ0203-G6□Series Parameter code

Code	Rated current	Code	Rated current	Code	Rated current	Code	Rated current
01	0.5A	02	0.63A	03	0.8A	04	1A
05	1.25A	06	1.6A	07	2A	08	2.5A
09	3.15A	10	4A	11	5A	12	6.3A
13	8A	14	10A	15	12.5A	16	16A

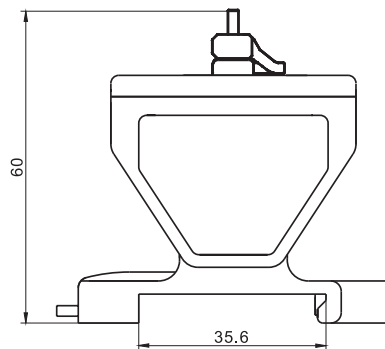
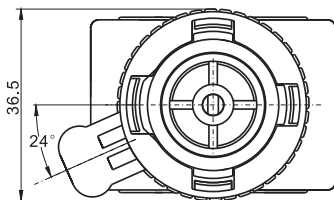
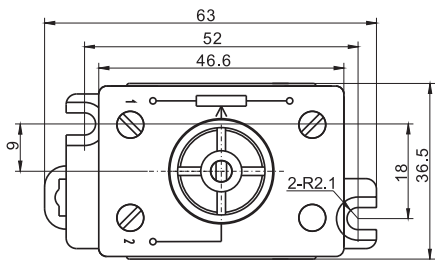
CZ0203-G6□ Series Parameter code

Code	Resistance Range、 Power
01	0.1Ω ~ 33MΩ、 1W

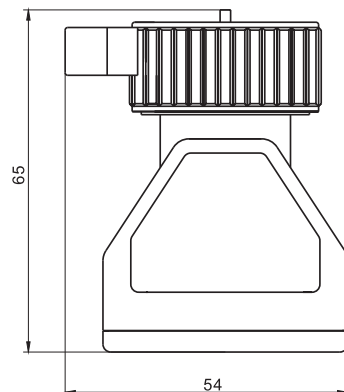
Technical data

- ◎ Ex- mark:  II 2G Ex db eb II C Gb
- ◎ Test certificate: IECEx CQM 11.0033U
Presafe 16 ATEX 9214U
- ◎ Ambient temperatur use: $-40^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$
 $55^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$
- ◎ Service temperature: $-40^{\circ}\text{C} \cdots 90^{\circ}\text{C}$
 $-55^{\circ}\text{C} \cdots 90^{\circ}\text{C}$
- ◎ Degree of protection : IP20
- ◎ Mechanical life: 10^6 switching cycles (The flameproof gap will not exceed the designed gap and its explosion protection performance will not be changed when it is to be used in its mechanical life)
- ◎ Connection type: Terminal $0.5 \sim 2.5\text{mm}^2$
- ◎ Mounting type: TS35 × 7.5 rail
- ◎ Connection type: Terminal 2.5mm^2 , Wire insulation stripping 6 ~ 8mm
- ◎ Tightening torque: 0.6 ~ 0.8Nm
- CZ0203-A□
- ◎ Rated voltage: Maximum input voltage: 200VDC or power rating, whichever is smaller
- ◎ Power Rating: 0.1W
- ◎ End resistance: Max.3Ω
- ◎ Standard resistance range: $100\Omega \sim 2\text{M}\Omega$
- ◎ Resistance tolerance: $\pm 10\%$
- ◎ Resistance law : Linear
- ◎ Adjustment travel: $240^{\circ} \pm 10$
- ◎ Mechanical tranel: $260^{\circ} \pm 10$
- ◎ Maximum rotational torque: 1.0Nm

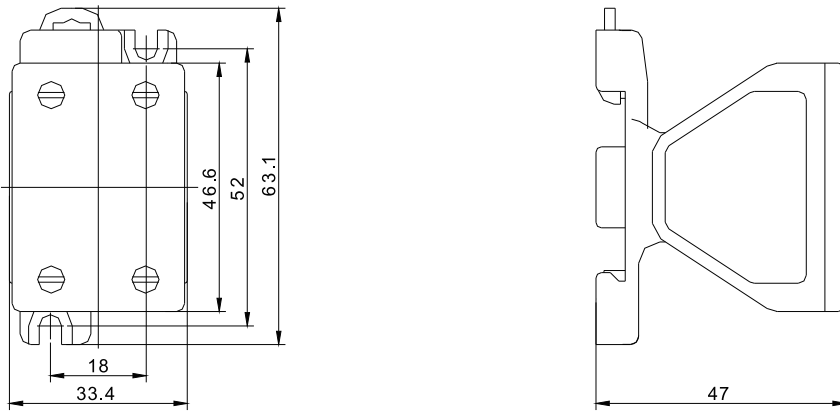
- CZ0203-B6□
 - Switch Rated voltage/current: AC250V/5A DC30V/5A
 - Coil voltage: DC 5V、DC 6V、DC 9V、DC 12V、DC 18V、DC 24V
- CZ0203-C6□
 - Rated voltage: Max250V AC/DC
 - Rated power: Max1.5W
- CZ0203-D6□-□
 - Zener voltage: 5.1V ~ 51V AC/DC
 - Dissipation power: Max 5W
- CZ0203-E6□
 - Voltage: Max 250V AC/DC
 - Dissipation power: Max 5W
- CZ0203-F6□
 - Rated voltage: AC250V/DC300V
 - Rated current: 0.5 ~ 16A
- CZ0203-G6□
 - Rated voltage: Max 250V AC/DC
 - Standard resistance range: 0.1 Ω ~ 33M Ω
 - Power Rating: Max 1W
 - Resistance tolerance: ± 10%
- Outline and installation dimensions:



CZ0203-A6



CZ0203-A7



CZ0203-B6、CZ0203-C6、CZ0203-D6、CZ0203-E6、CZ0203-F6、CZ0203-G6

Operation/installation

- ⊙ Transport and storage in original packaging only . National safety and installations regulations and the generally accepted rules of engineering practice must be observed when mounting and operating this equipment.
- ⊙ For the sake of ensuring normal operation and safety of explosion-proof control modules, user must abide by the followin gprovisions.
 - Explosion-proof control module is suitable for use in hazardous areas, zones1and 2.
 - The explosion-proof control module should be used under the following atmospheric condition :
The pressure is 80kPa(0.8bar)~110kPa(1.1bar)
The volume ratio of standard oxygen content is 21% air.
 - The product should be enclosed in explosion-proof enclosure which is fitted to the environment.
 - This series of products only can be used together with the actuator attachments manufactured by us.
 - This series of products should be installed in accordance with IEC60947-5-1.
 - Proposed tightening screw torque : 0.6 ~ 0.8Nm
 - The module mounting should be firm and reliable.
 - Virtual connection is not allowed during the wiring.
 - During wiring, the creepage distance of bare current-carrying part should be $\geq 6.3\text{mm}$ (CZ0203-A)/ 8m (CZ0203-B、CZ0203-C、CZ0203-D、CZ0203-E、CZ0203-G)/ 10mm (CZ0203-F), electric clearance should be $\geq 5\text{mm}$.

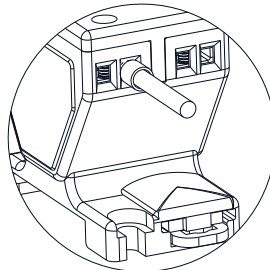


FIGURE1

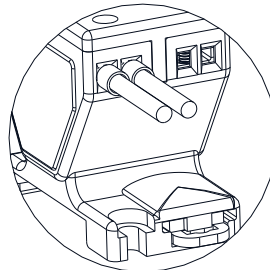


FIGURE2

- The flameproof joints are not intended to be required.
- The supply terminals are designed for the connection of $\leq 2.5\text{mm}^2$ max two brass conductors(IEC60947-7-1). If multi-or fine-ware connecting cables are used, the wire ends will have to be handled in accordance with the applicable national and international rules.
- The conductor itself shall not be damaged.
- The wire should be clamped pretreatment by the standard compression ferrule before connected to the terminals when wiring(SEE FIGURE 1). If need to connect two wires, cross-sectional area of the wire should be the same, And should be clamped pretreatment by the standard compression ferrule respectively(SEE FIGURE 2).



It will cause the explosion-proof potentiometers module damage or weaken its explosion-proof the rotary range of the operation head is exceeded the mechanical rotary range of the explosion-proof potentiometers module!

Disposal/recycling

- The respective valid national regulations for waste disposal shall be observed when disposing of apparatus!
- We are pleased to answer any special questions you may have Please contact your nearest CZ service station.

Accessories/spare parts

- Use only original spare parts as well as original accessories made by CZ Electric Co.,LTD.
- CZ Electric Co.,LTD..Provides the actuator for users to select, please refer to our latest catalogue for details.

Maintenance/repairs

- Observe the relevant national regulations for your country!
- Only parts from our company that can be used to replace or maintain, and the operation should be carried out by professional electrician!
- The following points must be checked during maintenance:
 - Compliance with permitted temperatures;
 - Cracks in the explosion-proof switch module;
- Check if the product has been fixed reliably.
- Check if the wiring is loose.
- Check if the flame-proof joint is damaged.

Disposal/recycling

- The respective valid national regulations for waste disposal shall be observed when disposing of apparatus!
- We are pleased to answer any special questions you may have Please contact your nearest CZ representative.