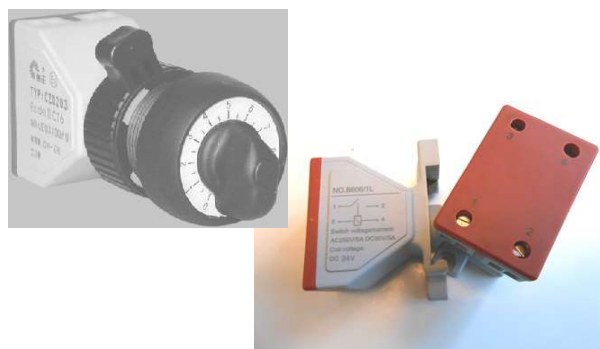




Product manual Z0503

Series 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 must study.



SAFETY INSTRUCTIONS

- Use the explosion-proof component only for its intended purpose.
- Explosion-proof components 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 components 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 (e.g. IEC 60079-14);
 - Generally recognized technical regulations;
 - Safety guidelines in these operating instructions;
 - Characteristic values given on the components.

Conformity to standards

The explosion-proof components are designed and manufactured according to standard of ISO 9001.

The explosion-proof components are conformity to the directive 94/9/EC, ATEX and the following standards:

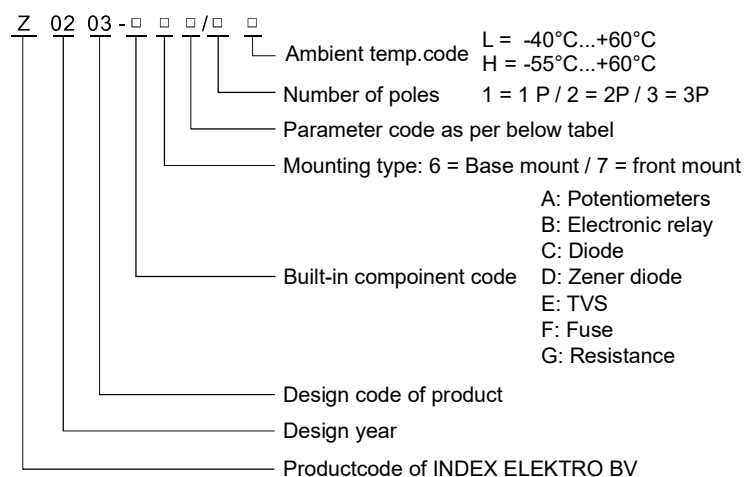
IEC60079-0 : 2011	EN60079-0 : 2012
IEC60079-1 : 2014	EN60079-1 : 2014
IEC60079-7 : 2015	EN60079-7 : 2015

Applicable scope

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



Model and implication



Z0203 - A - Parameters for Potentiometers

Code	recitance	Code	recitance	Code	recitance	Code	recitance
01	100 Ω	02	200 Ω	03	500 Ω	04	1 K Ω
05	2 K Ω	06	5 K Ω	07	10 K Ω	08	20 K Ω
09	50 K Ω	10	100 K Ω	11	200 K Ω	12	500 K Ω
13	1 M Ω	14	2 M Ω	xx	Others		

Z0203 - B6 + C6 Series Parameters

Code	Coil voltage	Code	Coil voltage	Code	Coil voltage	C6 - series	Max.voltage
01	5 VDC	02	6 VDC	03	9 VDC	Code 01	230 VAC
04	12 VDC	05	18 VDC	06	24 VDC		

Z0203 - D6 - Parameters for Potentiometers

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



Z0203 - E6 + G6 Series Parameters

	Code	Max.voltage	Resistance range / Power
E6 - series	01	230 VAC	
G6 - series	06		0.1Ω ~ 33 MΩ / 1Watt

Z0203 - F6 - Parameters

Code	Current	Code	Current	Code	Current	Code	Current
01	0.5 A	02	0,63 A	03	0.8 A	04	1.0 A
05	1,25 A	06	1,6 A	07	2.0 A	08	2.5 A
09	3,15 A	10	4.0 A	11	5.0 A	12	6.3 A
13	8 A	14	10.0 A	15	12.5 A	16	16.0 A

Technical date

- Ex mark: II 2 G Ex db eb IIC Gb
- Certificate : Presafe 16 ATEX 9214U // IECEx CQM 11.0033U
- Ambient temperature : -40°C to +60°C // -55°C to + 60°C
- Service temperature : -40°C to +90°C // -55°C to + 90°C
- Degree of protection : IP20
- Mechanical life : 10⁶ switching cycles (The flameproof gap wil not exceed the designed gap its explosion protection performance will not be changed when it is to be used in its mechanical life)
- Connection type: Terminal 0,5 ~2.5 mm², Wire insulation strippeng 6 ~ 8 mm. Tightening torque 0.6 ~ 0.8 Nm.
- Mounting type : TS35 x 7.5 rail

Z0203 - A - Potentiometers

- Maximum voltage: 200 VDC depending on power and resistance
- Power rating: 0.1 Watt
- End resistance: max. 3 Ω
- Standard resistance range: 100Ω ~ 2 MΩ - Linear
- Resistance tolerance: ± 10%
- Adjustment travel: 240° / Mechanical travel: 260° - ±10
- Maximum rotation torque: 1.0 Nm

Z0203 - B6 - Electronic relays

- Switch rated voltage / current: 250 VAC / 5A - 30VDC/5A
- Coil voltage: 5VDC, 6VDC, 9VDC, 12VDC, 18VDC, 24 VDC

Z0203 - C6 - Diode

- Rated voltage: max 250 V AC/DC
- Rated power max 1.5 Watt

Z0203 - D6 - Zener diode

- Zener voltage: 5.1V ~ 51V AC/DC
- Dissipation power max 5 Watt

Z0203 - E6 - Dubbele zener diode

- Zener voltage: 5.1V ~ 51V AC/DC
- Dissipation power max 5 Watt

Z0203 - F6 - Fuse module

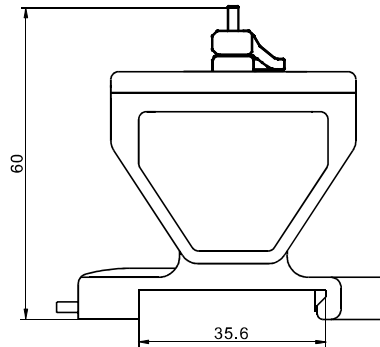
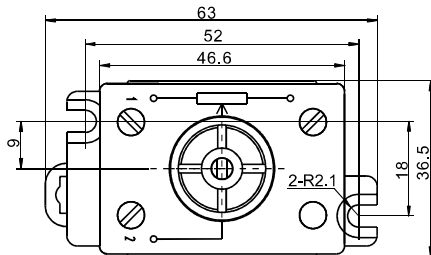
- Rated voltage: max 250 VAC / 300 VDC
- Rated current: 0,5 ~ 16A

Z0203 - G6 - Resistance module

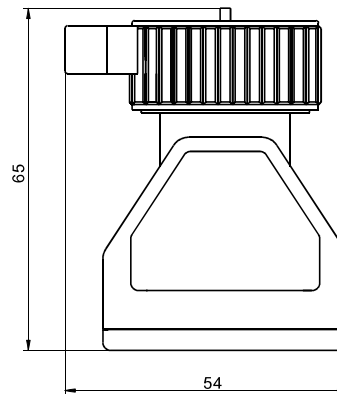
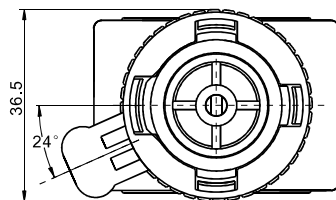
- Rated voltage: max 250 VAC / 1 Watt
- Resistance range 0,1Ω ~ 33MΩ - tolerance 10%

Z0203 - A - outline and installation dimensions potentiometers

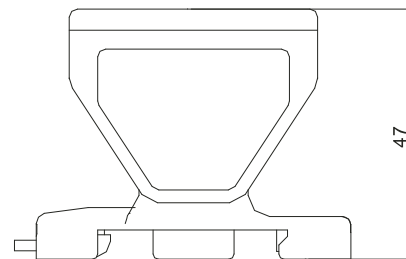
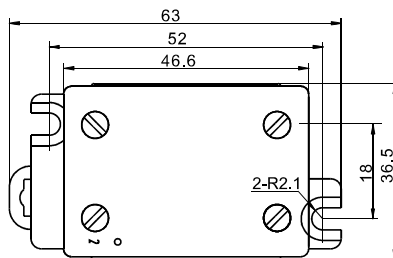
Z0203 - A6



Z0203 - A7



Z0203 - B6, C6, D6, E6 F6 and G6 - outline and installation dimensions



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 the normal operation and the safety of explosion-proof electric apparatus module, the user shall observe the following provisions:

Explosion-proof electric apparatus module is suitable for use in hazardous areas, zones 1 and 2.

The explosion-proof electric apparatus 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 series products which are Ex components can't be used separately but with the explosion-proof enclosure suitable for the environment.

This series of products only can be used together with the actuator attachments manufactures by us.

The products shall be mounted according to the standards given in IEC60947-5-1.

The module mounting should be firm and reliable.

Proposed tightening screw torque: 0.6 ~ 0.8 Nm.

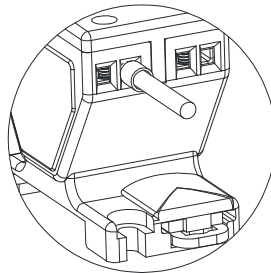


FIGURE1

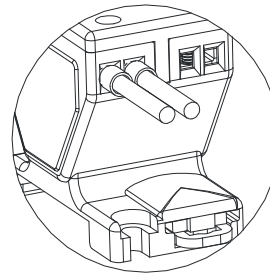


FIGURE2

The module mounting should be firm and reliable.

The supply terminals are designed for the connection of copper conductors. If multi-or fine-wire connecting cables are used, the wire ends will have to be handled in accordance with the applicable national and international rules.

The module itself shall not be damaged.

The connection must be reliable and wrong connection of conductor are not allowed.

The power terminals are designed for the connection of max. 2 pieces of 2.5 mm conductors (IEC60947-7-1). The wires must be connected using ferrules, see figures 1 and 2

The conductor itself must not be damaged

Repairs / Maintenance

- 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;
 - * Check if there is any crack in the components.
 - * Check if the component has been fixed reliably.
 - * Check if the wiring is not loose or fixed.
 - * Check if the flame-proof joints is damaged.

Recycling / Disposal

- The respective valid national regulations for waste disposal shall be observed when disposing of apparatus!
- We are pleased to answer any questions. In this case you can contact INDEX ELEKTRO BV.