



Product manual Z.1246 Explosion-proof positionswitch



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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.
- Staff working on assembly and maintenance, 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 cable gland only for its intended purpose.
- * Explosion-proof position switches 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 position switches 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;

Conformity to standards

The series explosion-proof position switches are designed, manufactured according to standard of ISO 9001s.
The series explosion-proof position switch is conformity to the directive 94/9/EC, ATEX and the following standards:

IEC60079-0	: 2011	EN 60079-0	: 2012
IEC60079-1	: 2014	EN 60079-1	: 2014
IEC60079-7	: 2015	EN 60079-7	: 2015
IEC60079-31	: 2013	EN 60079-31	: 2014

Applicable scope

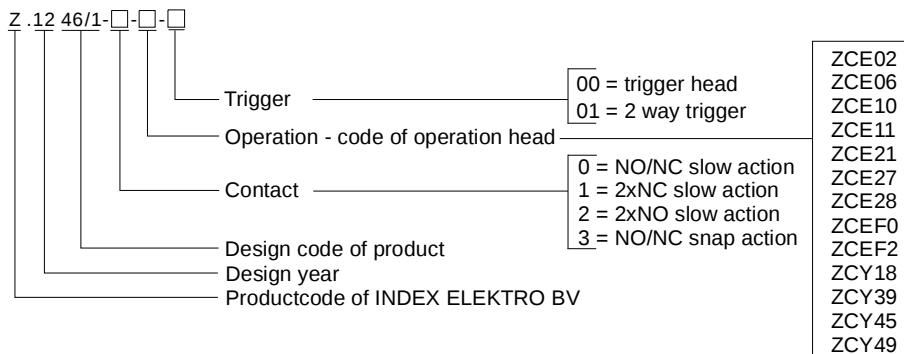
The series product can be used in zone 1, 2, 21 and zone 22.

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 using this equipment.
- Explosion-proof cable gland is suitable for use in hazardous areas, zones 1, 2, 21 and 22.
- For the sake of ensuring normal operation and safety of explosion-proof position switch, user must abide by the following provisions:
 - Explosion-proof controlbox is designed to be used under the following atmospheric conditions:
 - The pressure is 80kPa(0.8bar)~110kPa(1.1bar)
 - The volume ratio of standard oxygen content is 21% air
 - Proposed tightening screw torque: 0.6 ~0.8 Nm.
 - The mounting should be firm and reliable.
 - Only certified cable glands and stopping plugs are permitted to be used together with the position switch.
 - Cables must be connected with due care e.g.
 - Crimped joint for wires should be done (such as soldered, crimping with cable lug or bushings and so on)
 - All screws on the connection terminals, including unused ones must be fully tightened. A check must be carried out on correct installation before the devices go into service

Model and implication

Explosion-proof position switch



Main Technical Data

- Ex mark of product

II 2 G Ex db eb IIC T6
II 2 D Ex tb IIIC T80°C Db (Ie<6A, Ta<50°C)

II 2 G Ex db eb IIC T5
II 2 D Ex tb IIIC T95°C Db (6A< Ie<10A, Ta<40°C)

Ambient temperature : -20°C to +40°C (6A< Ie<10A)
-20°C to +50°C (Ie<6A)

Degree of protection : IP66
Rated voltage Ue : 320 VAC max, 250 VDC max.
Rated frequency : 50/60 Hz (AC)
Rated current : 10A. max
Connection terminals : 4 x 0.5 ~ 1.5 mm²
Terminal screw torque : 0.5 ~ 0,7 Nm.
Cover screw torque : 0.5 ~ 0,7 Nm.

Spare parts / Accessories

Use only original spare parts as well as original accessories made by INDEX ELEKTRO BV.

Repair / Maintenance

Observe the relevant national regulations for your country!

Only parts from INDEX ELEKTRO BV can be used to maintain. The operation should be carried out by professional electrician!

Repairing only by INDEX ELEKTRO BV

The following points must be checked during maintenance:

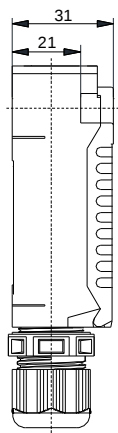
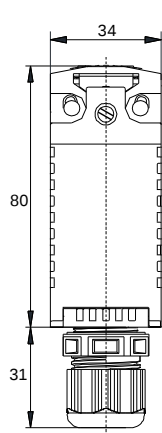
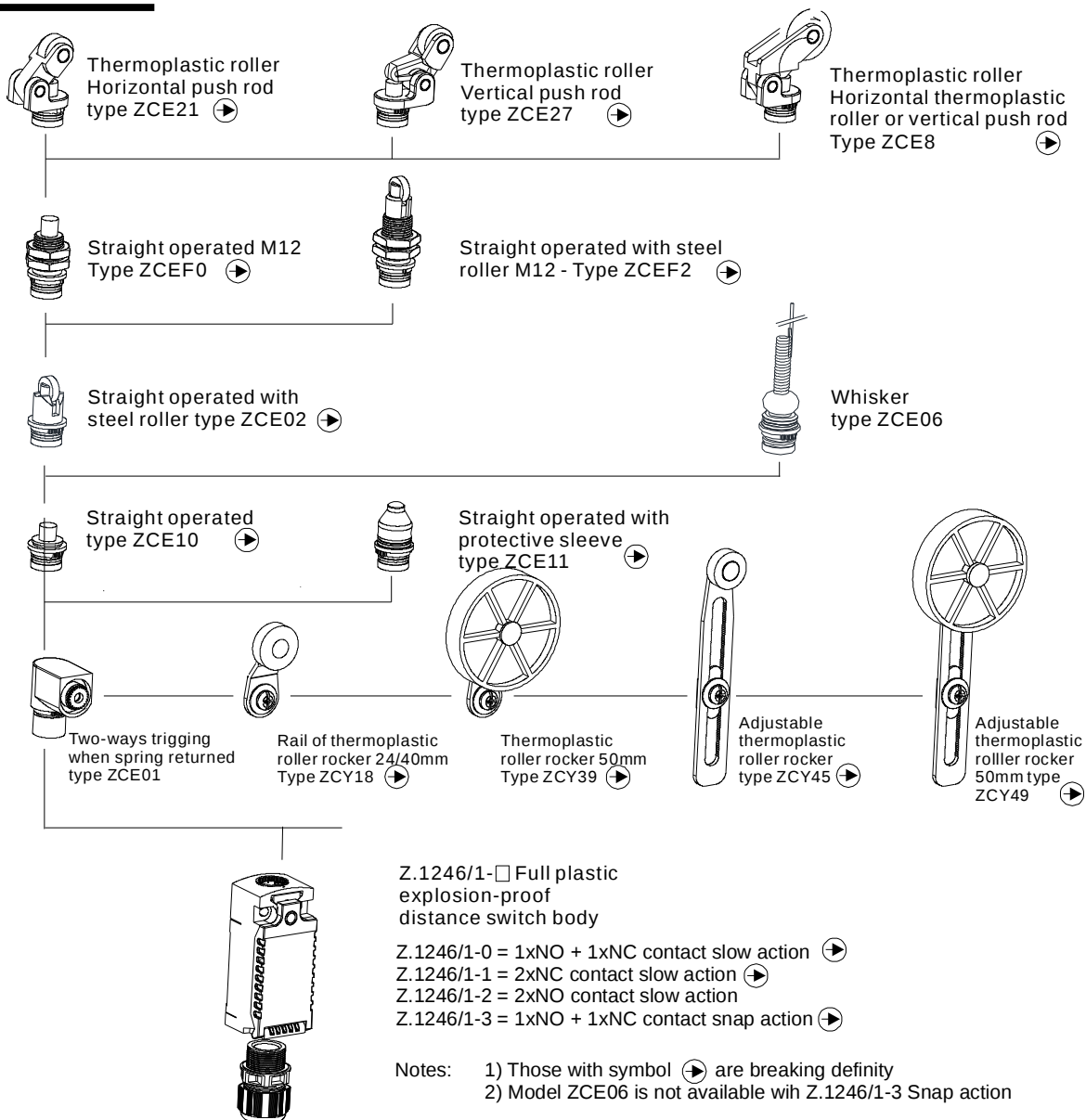
The following points must be checked during maintenance:

- * Compliance with permitted temperatures;
- * Check if there is any crack in the box or components.
- * Check if the component has been fixed reliably.
- * Check if the wiring is loose.

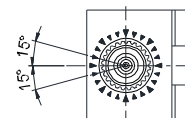
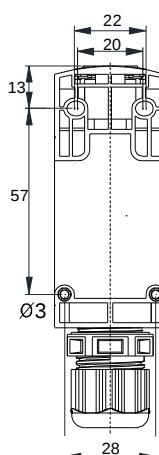
Recycling/Disposal

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 INDEX ELEKTRO BV.

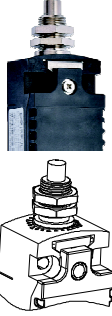
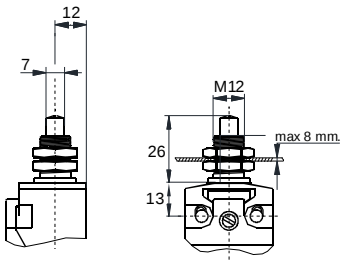
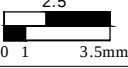
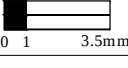
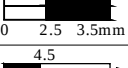
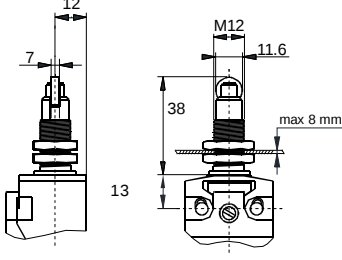
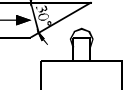
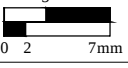
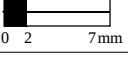
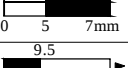
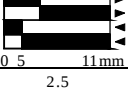
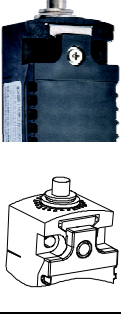
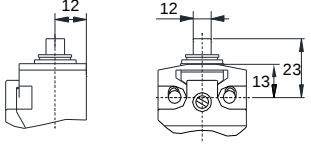
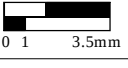
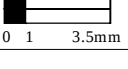
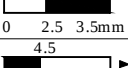
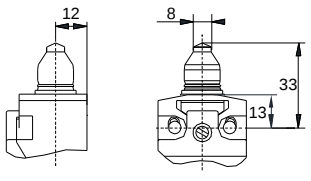
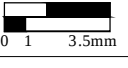
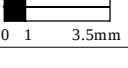
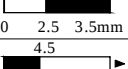
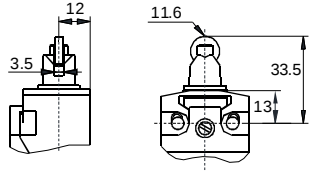
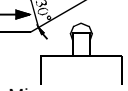
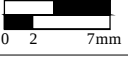
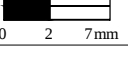
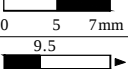
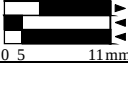


Cable gland M20



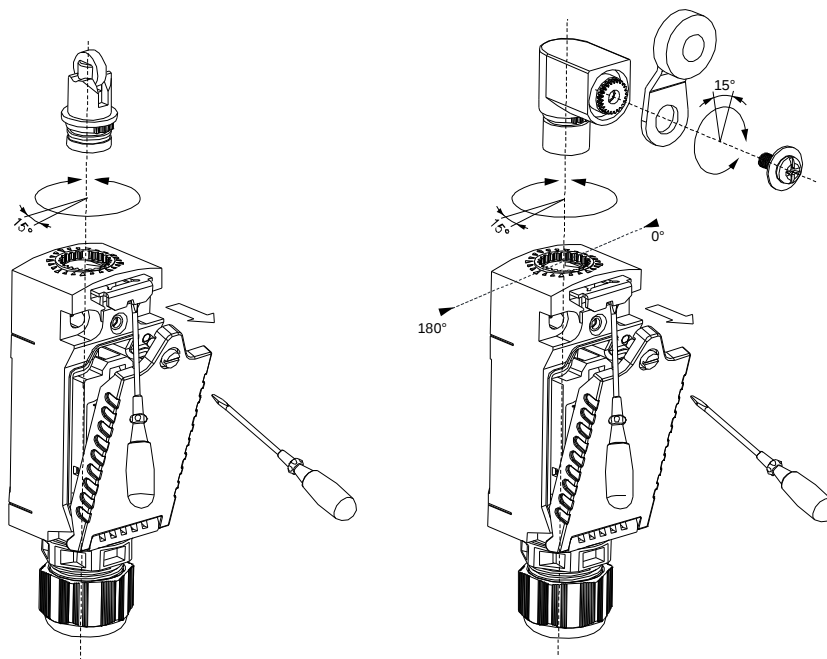
Contactblok
Switch module

Afmetingen Dimensions

Afbeelding Illustration	Afmetingen Dimensions	Bediening Operation	Contactbezetting Contacts	Type
	 Straight operated type M12	Max. snelheid Max. speed 0.5m/s  Min. power Min. druk 15N Schakelt zeker bij switch for sure 45N	NO 13-14 NC 21-22 	Z.1246/1-0-ZCEF0-00
			NC 11-12 NC 21-22 	Z.1246/1-1-ZCEF0-00
			NO 13-14 NO 23-24 	Z.1246/1-2-ZCEF0-00
			NC 11-12 NO 23-24 NC 11-12 NO 23-24 	Z.1246/1-3-ZCEF0-00
	 Straight operated with steel roller M12	Max. snelheid Max. speed 0.5m/s  Min. power Min. druk 10N Schakelt zeker bij switch for sure 36N	NO 13-14 NC 21-22 	Z.1246/1-0-ZCEF2-00
			NC 11-12 NC 21-22 	Z.1246/1-1-ZCEF2-00
			NO 13-14 NO 23-24 	Z.1246/1-2-ZCEF2-00
			NC 11-12 NO 23-24 NC 11-12 NO 23-24 	Z.1246/1-3-ZCEF2-00
	 Straight operated type	Max. snelheid Max. speed 0.5m/s  Min. power Min. druk 15N Schakelt zeker bij switch for sure 45N	NO 13-14 NC 21-22 	Z.1246/1-0-ZCE10-00
			NC 11-12 NC 21-22 	Z.1246/1-1-ZCE10-00
			NO 13-14 NO 23-24 	Z.1246/1-2-ZCE10-00
			NC 11-12 NO 23-24 NC 11-12 NO 23-24 	Z.1246/1-3-ZCE10-00
	 Straight operated type with protective sleeve	Max. snelheid Max. speed 0.5m/s  Min. power Min. druk 15N Schakelt zeker bij switch for sure 45N	NO 13-14 NC 21-22 	Z.1246/1-0-ZCE11-00
			NC 11-12 NC 21-22 	Z.1246/1-1-ZCE11-00
			NO 13-14 NO 23-24 	Z.1246/1-2-ZCE11-00
			NC 11-12 NO 23-24 NC 11-12 NO 23-24 	Z.1246/1-3-ZCE11-00
	 Straight operated with steel roller	Max. snelheid Max. speed 0.5m/s  Min. power Min. druk 12N Schakelt zeker bij switch for sure 36N	NO 13-14 NC 21-22 	Z.1246/1-0-ZCE02-00
			NC 11-12 NC 21-22 	Z.1246/1-1-ZCE02-00
			NO 13-14 NO 23-24 	Z.1246/1-2-ZCE02-00
			NC 11-12 NO 23-24 NC 11-12 NO 23-24 	Z.1246/1-3-ZCE02-00

Afbeelding Illustration	Afmetingen Dimensions	Bediening Operation	Contactbezetting Contacts	Type
		 Max. snelheid Max. speed 1 m/s Min. power Min. druk 6N Schakelt zeker bij switch for sure 18N	NO 13-14 NC 21-22 	Z.1246/1-0-ZCE21-00
			NC 11-12 NC 21-22 	Z.1246/1-1-ZCE21-00
			NO 13-14 NO 23-24 	Z.1246/1-2-ZCE21-00
			NC 11-12 NO 23-24 NC 11-12 NO 23-24 	Z.1246/1-3-ZCE21-00
		 Max. snelheid Max. speed 1 m/s Min. power Min. druk 6N Schakelt zeker bij switch for sure 18N	NO 13-14 NC 21-22 	Z.1246/1-0-ZCE27-00
			NC 11-12 NC 21-22 	Z.1246/1-1-ZCE27-00
			NO 13-14 NO 23-24 	Z.1246/1-2-ZCE27-00
			NC 11-12 NO 23-24 NC 11-12 NO 23-24 	Z.1246/1-3-ZCE27-00
		 Max. snelheid Max. speed 1 m/s Min. power Min. druk 6N Schakelt zeker bij switch for sure 18N	NO 13-14 NC 21-22 	Z.1246/1-0-ZCE28-00
			NC 11-12 NC 21-22 	Z.1246/1-1-ZCE28-00
			NO 13-14 NO 23-24 	Z.1246/1-2-ZCE28-00
			NC 11-12 NO 23-24 NC 11-12 NO 23-24 	Z.1246/1-3-ZCE28-00
		 Max. snelheid Max. speed 1.5 m/s Min. power Min. druk 6N Schakelt zeker bij switch for sure 18N	NO 13-14 NC 21-22 	Z.1246/1-0-ZCY18-01
			NC 11-12 NC 21-22 	Z.1246/1-1-ZCY18-01
			NO 13-14 NO 23-24 	Z.1246/1-2-ZCY18-01
			NC 11-12 NO 23-24 NC 11-12 NO 23-24 	Z.1246/1-3-ZCY18-01
		 Max. snelheid Max. speed 1.5 m/s Min. power Min. druk 0.1N Schakelt zeker bij switch for sure 0.25N	NO 13-14 NC 21-22 	Z.1246/1-0-ZCY45-01
			NC 11-12 NC 21-22 	Z.1246/1-1-ZCY45-01
			NO 13-14 NO 23-24 	Z.1246/1-2-ZCY45-01
			NC 11-12 NO 23-24 NC 11-12 NO 23-24 	Z.1246/1-3-ZCY45-01

Afbeelding Illustration	Afmetingen Dimensions	Bediening Operation	Contactbezetting Contacts	Type
	Thermoplastic roller rocker 50mm	Max. snelheid Max. speed 1.5 m/s Min. power Min. druk 0.1N Schakelt zeker bij switch for sure 0.25N	NO 13-14 NC 21-22	Z.1246/1-0-ZCY39-01
			NC 11-12 NC 21-22	Z.1246/1-1-ZCY39-01
			NO 13-14 NO 23-24	Z.1246/1-2-ZCY39-01
			NC 11-12 NO 23-24 NC 11-12 NO 23-24	Z.1246/1-3-ZCY39-01
	Adjustable thermoplastic roller rocker 50mm	Max. snelheid Max. speed 1.5 m/s Min. power Min. druk 0.1N Schakelt zeker bij switch for sure 0.25N	NO 13-14 NC 21-22	Z.1246/1-0-ZCY49-01
			NC 11-12 NC 21-22	Z.1246/1-1-ZCY49-01
			NO 13-14 NO 23-24	Z.1246/1-2-ZCY49-01
			NC 11-12 NO 23-24 NC 11-12 NO 23-24	Z.1246/1-3-ZCY49-01
	Whisker type		NO 13-14 NC 21-22	Z.1246/1-0-ZCE06-01
			NC 11-12 NC 21-22	Z.1246/1-1-ZCE06-01
			NO 13-14 NO 23-24	Z.1246/1-2-ZCE06-01



All operators having gear fixed point can be mounted in enclosure with 360° slot and can be adjusted every 15°
Excl. types ZCY 45 and ZCY49.

Product usage

