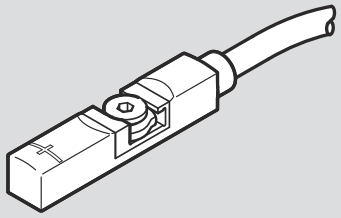
CRSMT-8M-PS-24V-K-...-EX2

Proximity switch



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Operating instruction EX

8227848
2024-11d
[8227850]

8227848

Original instructions

1 Identification EX

Identification
II 3G Ex ec IIC T4 Gc X II 3D Ex tc IIIC T120°C Dc X

Tab. 1: Identification EX

2 Applicable documents

NOTICE

Technical data for the product can have different values in other documents. For operation in an explosive atmosphere, the information in this document always have priority.

All available documents for the product ➔ www.festo.com/sp.

3 Safety

3.1 Safety instructions

- The device can be used under the stated operating conditions in zone 2, explosive gas atmospheres, and in zone 22, explosive dust atmospheres.
- The product may generate high frequency interference, which may require interference suppression measures in residential areas.
- All work must be carried out outside of explosive areas.
- Protect the device from mechanical impact and UV in the potentially explosive area with the protective cover SACC-N8-SP (not included in the scope of delivery).
- Protect the device from overheating. Mount the proximity switch in the specified metallic sensor slot of the cylinder.
- Use the device in its original status, without any unauthorised modifications.

3.2 Intended use

This product is intended for sensing the position of magnets in Festo products, e.g. the piston position.

3.3 Identification X: special conditions

- Do not disconnect when powered.
- Use an additional strain relief for the cable.
- Protect the device from mechanical impact.
- Protect the device from UV radiation.
- Ambient temperature: –40 °C ≤ T_a ≤ +85 °C.
- The device must be operated only in an environment with a minimum of pollution degree 2, as defined in IEC 60664-1.

4 Function

The CRSMT-8M-... is an electronic proximity sensor with switching status indication.

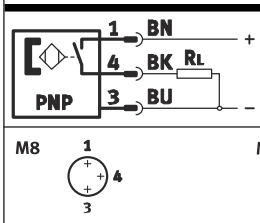
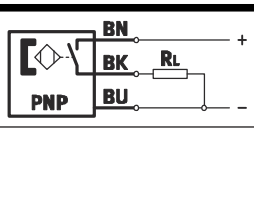
5 Installation

WARNING

Risk of injury due to electric shock.

- Use exclusively PELV circuits in accordance with IEC 60204-1/EN 60204-1 for the electrical power supply (Protective Extra-Low Voltage, PELV).
- Observe the general requirements of IEC 60204-1/EN 60204-1 for PELV circuits.
- Use exclusively voltage sources that guarantee reliable electrical isolation from mains power in accordance with IEC 60204-1/EN 60204-1.

- The device shall be supplied from an isolating transformer having a secondary listed fuse rated 1 A.

CRSMT-8M-PS-24V-...-M...	CRSMT-8M-PS-24V-...-OE
	

Tab. 2: Circuit diagram for electrical installation

6 Mounting

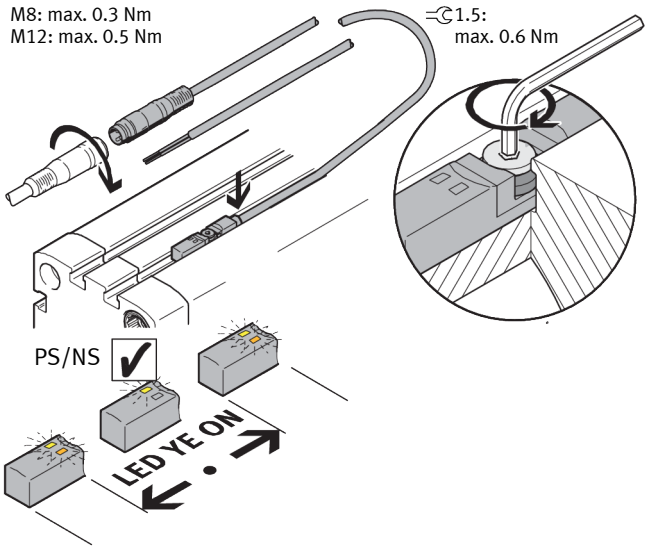


Fig. 1: Mounting of the proximity switch

Configuration

1. Unscrew the retaining screw.
2. Remove the proximity switch from the slot.

7 Commissioning

WARNING

Electrically generated sparks can ignite a potentially explosive atmosphere and cause an explosion.

- Do not disconnect when powered.
- Prevent the disconnection of the plug M8 and/or M12 with a safety clip NEAU-M8-GD and/or NEAU-M12-GD (not included in the scope of delivery).

- Connect the device outside the potentially explosive area with the connecting cable or in a type of (ignition) protection suitable for zones 2 and 22.

8 Technical data

CRSMT-8M		
Operating voltage range	[V DC]	5 ... 30
Ambient temperature	[°C]	–40 ≤ Ta ≤ +85
Ambient temperature, cables not in fixed location	[°C]	–20 ≤ Ta ≤ +85
Max. output current	[mA]	100
Max. switching capacity	[W]	2.8
Residual current	[mA]	≤ 0.05
Switch-on time	[ms]	≤ 1
Switch-off time	[ms]	≤ 1
Repetition accuracy	[mm]	0.2
Short circuit current rating		yes
Reverse polarity protection		for all electrical connections
Degree of protection		IP65, IP68, IP69K

CRSMT-8M	
Materials	
Housing	PP, high-alloy stainless steel, PA
Cable sheath	TPE-O
Insulating sheath	PP
Plug housing	PP
Union nut	Nickel-plated brass

Tab. 3: Operating conditions