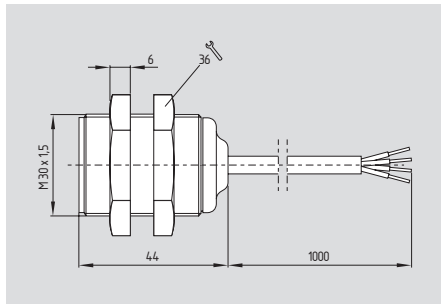
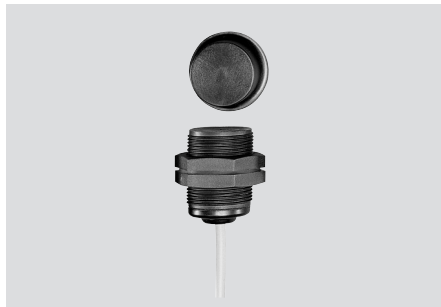


Coded magnet safety sensors

BNS 303



- Thermoplastic enclosure
- Coded
- Long life, no mechanical wear
- Protection class IP67
- Insensitive to lateral misalignment
- Insensitive to soiling
- With actuator BPS 303 SS suitable for food processing industry
- With LED available
- EX version available

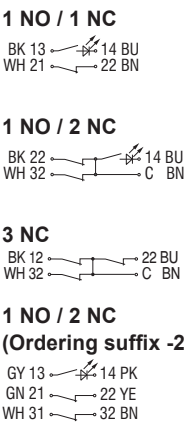
Technical data

Standards: IEC 60947-5-3; BG-GS-ET-14
 Design: cylindrical
 Enclosure: glass fiber reinforced thermoplastic, 2 nuts thermoplastic, tightening force A/F 36: max. 300 Ncm
 Protection class: IP67 to EN 60529
 Connection: Boflex cable, connector M12
 - Ordering suffix -ST:
 Cable section: 4 x 0.25 mm²
 Mode of operation: magnetic
 Actuating magnet: BPS 300, BPS 303, BPS 303 SS, coded
 S_{ao}: 5 mm
 - Ordering suffix -2211: 8 mm
 S_{ar}: 15 mm
 - Ordering suffix -2211: 18 mm
 Switching conditions indicator: LED only for ordering suffix G
 Switching voltage
 - without LED: max. 100 VAC/DC
 - with LED: max. 24 VDC
 - with connector: max. 100 VAC/DC
 Switching current
 - without LED: max. 400 mA
 - 03Z: max. 250 mA
 - with LED: max. 10 mA
 Switching capacity
 - without LED: max. 10 W
 - with LED: max. 240 mW
 Ambient temperature: -25 °C ... +70 °C
 Storage and transport temperature: -25 °C ... +70 °C
 Switching frequency: max. 5 Hz
 Resistance to shock: 30 g / 11 ms
 Resistance to vibration: 10 ... 55Hz, amplitude 1 mm

Classification:
 Standards: EN ISO 13849-1
 B_{10d} (NC/NO): 25.000.000
 for 20% contact load
 Mission time: 20 years

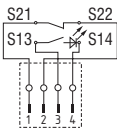
$$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}} \quad n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{cycle}}$$

Contact variants

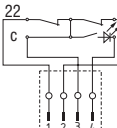


Connector

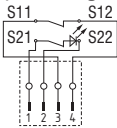
1 NO / 1 NC



1 NO / 2 NC



2 NC (Ordering suffix -2211)



Approvals

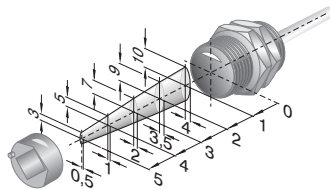


Ordering details

No.	Option	Description
①	11	1 NO / 1 NC
	12	1 NO / 2 NC
	02	2 NC
	03	3 NC
②	G	Without LED
		With LED
③		With cable
	ST	With connector M12
④	2187	Individual contact outlet
	2211	Increased switching distance

The actuating magnet must be ordered separately. Refer to page 1-110.

Note



Enabling zone
Important Note:
 Series BNS sensors are only for use in safety applications when used with an electrically compatible safety controller or safety PLC (See section 5 for appropriate safety controllers)

Note

Contact symbols shown for the closed condition of the guard device.

The contact configuration for versions with or without LED is identical.

The LED is illuminated when the guard door is closed.