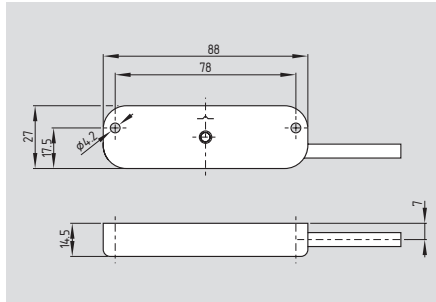


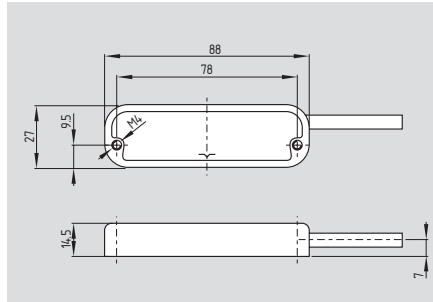
Coded magnet safety sensors

BNS 40S



- Fully encapsulated stainless steel enclosure
- Coded
- Rectangular design
- Long life, no mechanical wear
- Protection class IP69K
- Actuation only possible with BPS 40S-...
- Insensitive to lateral misalignment
- Concealed mounting possible
- Insensitive to soiling
- Suitable for food-processing industry
- Food-safe connecting cable

BNS 40S-...-C



- Concealed threaded holes on the rear-side provide for smooth cleaning

Technical data

Standards:	IEC 60947-5-3, BG-GS-ET-14
Design:	rectangular
Enclosure:	Stainless steel V4A (Material designation to DIN 1.3960)
Protection class:	IP69K to IEC/EN 60529
Connection:	cable LiYY, 1 m (suitable for the food industry)
Cable section:	6 x 0.25 mm ²
Mode of operation:	magnetic
Actuating magnet:	BPS 40S-1, BPS 40S-2, BPS 40S-1-C, BPS 40S-2-C, coded
S _{ao} :	8 mm
S _{ar} :	18 mm
Switching conditions indicator:	LED only for ordering suffix G
Max. switching voltage:	
- without LED:	max. 100 VAC/DC
- with LED:	max. 24 VDC
Max. switching current:	
- without LED:	max. 250 mA
- with LED:	max. 10 mA
Max. switching capacity:	
without LED:	max. 3 W
with LED:	max. 240 mW
Ambient temperature:	-25 °C ... +80 °C
Storage and transport temperature:	-25 °C ... +80 °C
Max. switching frequency:	max. 5 Hz
Resistance to shock:	30 g / 11 ms
Resistance to vibration:	10 ... 55 Hz, amplitude 1 mm

Classification:

Standards:	EN ISO 13849-1
B _{10d} (NC/NO):	25,000,000 for 20% contact load
Mission time:	20 years

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

Approvals

BS* cULus * under preparation



Approvals

BS* cULus * under preparation



Ordering details

BNS 40S-12Z①

No.	Option	Description
①	G	without LED with LED

The actuating magnet must be ordered separately.

Ordering details

BNS 40S-12Z①-C

No.	Option	Description
①	G	without LED with LED

The actuating magnet must be ordered separately.

Note

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)

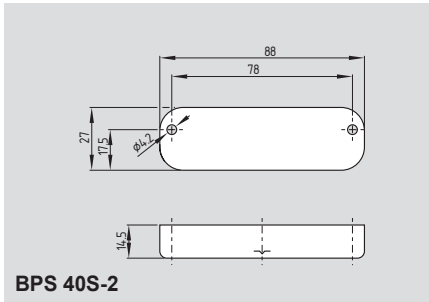
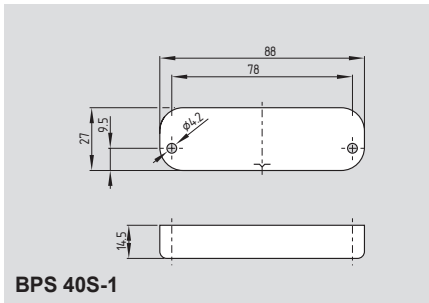
Coded magnet safety sensors

Contact variants

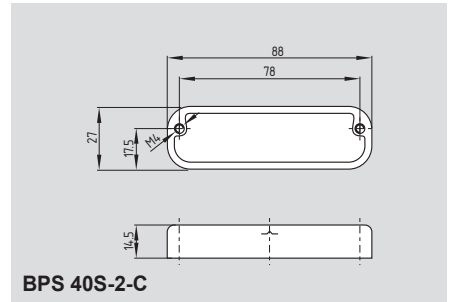
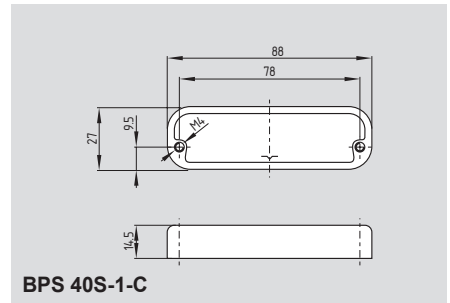
1 NO / 2 NC

GY S13 — S14 PK
GN S21 — S22 YE
WH S31 — S32 BN

System components



System components



Note

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

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

Contacts S21-S22 must be integrated in the safety circuit.

The LED is illuminated when the guard door is closed.

Ordering details

Fully encapsulated stainless steel enclosure:
Actuator and sensor mounted
on same fixing plane
Actuator for 90° fixing

BPS 40S-1
BPS 40S-2

Ordering details

Fully encapsulated stainless steel enclosure:
Actuator and sensor mounted
on same fixing plane,
rear-side threaded holes
Actuator for 90° fixing,
rear-side threaded holes

BPS 40S-1-C
BPS 40S-2-C