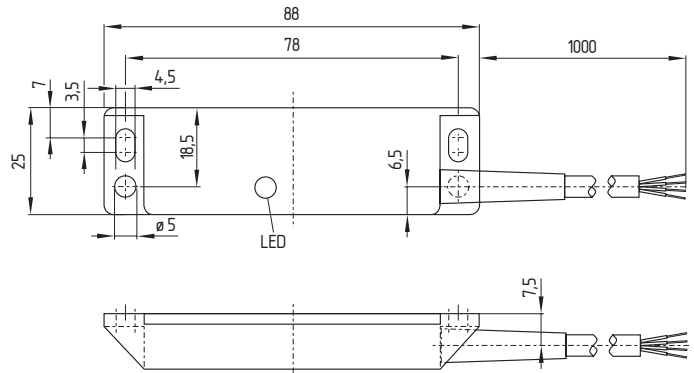


5. Magnetic safety sensors
5.1 Rectangular design
5.1.1 BNS 33 range



- Features**
- Thermoplastic enclosure
 - With coding
 - Long life, no mechanical wear
 - IP 67
 - Actuation only possible with BPS 33
 - Insensitive to transverse misalignment
 - Concealed mounting possible
 - Insensitive to soiling

Contacts	1 NO 1 NC	1 NO 2 NC	1 NO 2 NC	2 NC
With LED				
Without LED	BNS 33-11z	BNS 33-12z	BNS 33-12z-2187	BNS 33-02z-2187
Without LED	BNS 33-11z-2063	BNS 33-12z-2063	BNS 33-12zG-2187	BNS 33-02zG-2187
With LED	BNS 33-11zG	BNS 33-12zG	BNS 33-12zG-2187	BNS 33-02zG-2187
Control category	3	1	1	4
With safety monitoring modules	From AES range , which fulfill Control Category 3 (see chapter 10.2)	AES 6112, 7112, 1102 or 1112 (see chapter 10.2) Monitoring of two guard devices	AES 6112, 7112, 1102 or 1112 (see chapter 10.2) Monitoring of up to two guard devices	AES 3337, AZR 31 R2 or AZR 31 T2 (see chapter 10.2)
Actuator	BPS 33	BPS 33	BPS 33	BPS 33
Approvals				

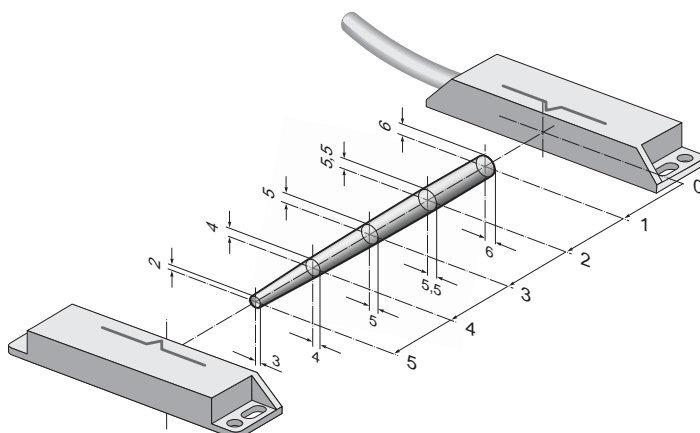
Notes Contact symbols shown for the closed condition of the guard device.
The actuator for the magnetic safety sensors must be ordered separately.

5. Magnetic safety sensors
5.1 Rectangular design
5.1.1 BNS 33 range



Axial misalignment

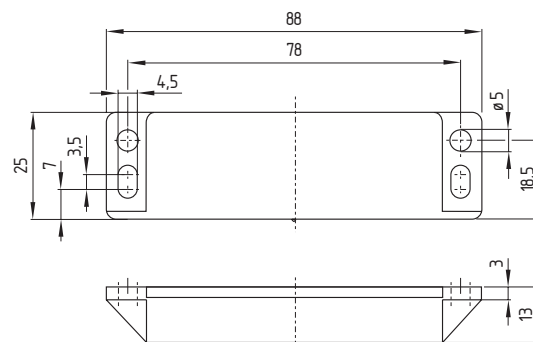
- Enabling zone



Actuator

BPS 33

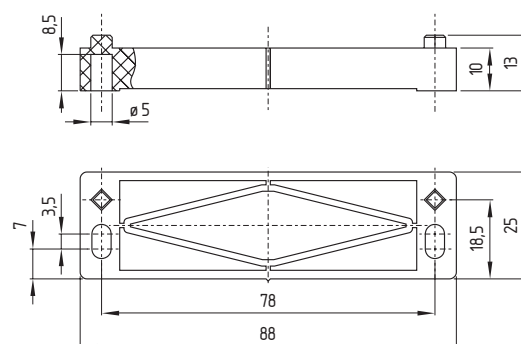
- Thermoplastic enclosure
- Actuator including two tamperproof screws



Accessories

Spacer BN 31/33

- To mount the magnetic safety sensor and actuator on ferromagnetic material



Notes

The LED is illuminated when the guard is open.
 The ordering suffix is added to the part number of the sensor required from the "Contacts" table.

- **For transverse actuation from the direction of the cable entry, special type required, ordering suffix -2237**

Ordering details

BNS 33 with one NO and one NC contact, with LED:
 BNS 33-11zG
 Actuator including two tamperproof screws:
 BPS 33

Info

- BNS 33-...-2063 is also available with one NC contact, ordering suffix -01z or one NO contact, ordering suffix -10z
- BNS 33-12zG-2187 also available with LED connected to NO contact (13-14), ordering suffix -10

To safeguard up to Control Category 4 to EN 954-1, the Safety System Kit No. 19 can be used. This comprises an AZR 31 R2 guard door monitor, a BNS 33-02z-2187, a BPS 33 and tamperproof screws.

5. Magnetic safety sensors

5.5 Technical data



	BNS 33 BNS 33-ST	BNS 250	BNS 333	BNS 120
Standards:	DIN VDE 0660-209, EN 1088, BG-GS-ET-14 (In combination with AES safety monitoring modules)		DIN VDE 0660-209, EN 954-1, EN 1088, BG-GS-ET-14	DIN VDE 0660-209, BG-GS-ET-14; EN 1088 (In combination with AES safety monitoring modules)
Design:	Rectangular			Cylindrical
Enclosure material:	Glass-fibre reinforced thermoplastic		Glass-fibre reinforced thermoplastic with Pg 13.5 cable entry	Glass-fibre reinforced thermoplastic Tightening force on hexagon 17 mm A/F max. 90 Ncm
Protection class:	IP 67 to IEC/EN 60529/DIN VDE 0470 -1		IP 65	IP 67
Termination:	Boflex cable 4 x 0.25 mm ² Suffix -ST: M 8 x 1 connector		Screw terminals for max. 2.5 mm ² cables (incl. conductor ferrules)	Boflex cable 4 x 0.25 mm ²
Mode of operation:	Magnetic			
Limiting distances:	5 mm 15 mm	4 mm 14 mm	4 mm 14 mm	20 mm 32 mm
Switching-position indicator:	LED only for ordering suffix G24		LED	-
Actuator:	Coded, BPS 33	Coded, BPS 250	Coded, BPS 300, BPS 303, BPS 303 SS	Uncoded, BP 10, BP 15 SS
Max. switching voltage:				
Without LED	100 VAC/DC	-	-	100 VAC/DC
With LED	24 VDC	24 VDC	250 VAC	-
With connector	60 VAC/DC			
Max. switching current:				
Without LED	250 mA	100 mA	-	250 mA
With LED	10 mA	10 mA	5 A	-
Output:	-	-	1 enabling circuit	-
Operating voltage:	-	-	24 VDC	-
Operating current:	-	-	max. 40 mA	-
Max. switching capacity:				
Without LED	3 VA/W	1 W	-	3 VA/W
With LED	240 mW	240 mW	1250 VA	-
Ambient temperature:	- 25 °C ... + 70 °C		- 25 °C ... + 55 °C	- 25 °C ... + 70 °C
Storage and transport temperature:	- 25 °C ... + 70 °C			
Resistance to shock:	30 g / 11 ms			
Resistance to vibration:	10 ... 55 Hz, amplitude 1 mm			

