

Datasheet - BNS 33S-12Z



Safety sensors / BNS 33 S



- Stainless steel enclosure
- Cable connection suitable for the food industry
- Concealed mounting possible
- 88 mm x 27 mm x 14,5 mm
- Long life
- no mechanical wear
- Insensitive to soiling
- Insensitive to transverse misalignment

(Minor differences between the printed image and the original product may exist!)

Ordering details

Product type description	BNS 33S-12Z
Article number	1184324
EAN code	4030661322209


Approval

Approval	 BG
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Classification

Standards	EN ISO 13849-1
B _{10d} Opener/Normally open contact (NC/NO)	25.000.000
- notice	at max. 20% contact load
Mission time	20 Years
notice	$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{zyklus}}$

Global Properties

Product name	BNS 33S
Standards	IEC 60947-5-3, BG-GS-ET-14
Compliance with the Directives (Y/N) 	Yes
Materials	
- Material of the housings	Stainless steel
- Material of the cable mantle	PVC
Weight	170 g
Coding available (Y/N)	Yes
Monitoring function of downstream devices (Y/N)	No
Prerequisite evaluation unit	Yes
Recommended safety-monitoring module	AES 1165, AES 1166, AES 1165-2250, AES 1185, AES 1235, AES 1236, AES 1265, AES 1266, AES 1337, AES 2135, AES 2136, AES 2335, AES 2336, AES 2535, AES 2536, AES 2365, AES 2366, AES 2565, AES 2566, AES 2285, AES 3075, SRB 202C., SRB 400C., AES 3075, SRB 2191T, SRB 308IT

Recommended actuator BPS 33S

Mechanical data

Design of electrical connection	Cable
Cable length	1 m
Conductors	0,25 mm ²
AWG-Number	23
mechanical installation conditions	not flush
Active area	Side
Ensured switch distance ON	8 mm
Ensured switch distance OFF	18 mm
Type of actuation	Magnet
Direction of motion	head-on with regard to the active surface
restistance to shock	30 g / 11 ms
Resistance to vibration	10 ... 55 Hz, Amplitude 1 mm

Ambient conditions

Ambient temperature	
- Min. environmental temperature	- 25°C
- Max. environmental temperature	+ 70°C
Storage and transport temperature	
- Min. Storage and transport temperature	- 25°C
- Max. Storage and transport temperature	+ 80°C
Protection class	IP69K

Electrical data

Integrated Safety monitoring module available (Y/N)	No
Cross circuit/short circuit recognition possible (Y/N)	Yes
Voltage type	VAC/DC
Switch frequency	max. 5 Hz
Switching voltage	max. 100 VAC/DC
Switching current	max. 250 mA
Switching capacity	max. 3 W

Outputs

Design of control output	Other, Reed kontakts
Number of shutters	1 piece
Number of openers	2 piece

Electrical data - Safety outputs

Number of secure semi-conductor outputs	0 piece
Number of secure outputs with contact	0 piece

Electrical data - Diagnostic output

Number of semi-conductor outputs with signaling function	0 piece
Number of outputs with signaling function that already have a contact	0 piece

LED switching conditions display

LED switching conditions display (Y/N) No

ATEX

Explosion protection categories for gases None

Explosion protected category for dusts None

Dimensions

Dimensions of the sensor

- Width of sensor	88 mm
- Height of sensor	27 mm
- Length of sensor	14.5 mm

notice

Contact symbols shown for the closed condition of the guard device.
Contact S21-S22 must be integrated in the safety circuit
The contact configuration for versions with or without LED is identical.

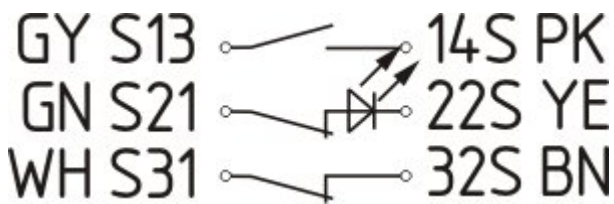
Included in delivery

Actuators must be ordered separately.






Indication legend

Enabling zone

Diagram



Note Diagram

-  positive break NC contact
-  active
-  no active
-  Normally-open contact
-  Normally-closed contact

Ordering code

BNS 33S-12Z(1)

(1)

without without LED switching conditions display

G with LED switching conditions display

Documents

Operating instructions and Declaration of conformity (de) 861 kB, 21.01.2010

http://www.schmersal.net/Bilddata/Si_senso/Pdf/bns33s/bedien/DE/mrl_bns33s_de.pdf

Operating instructions and Declaration of conformity (nl) 400 kB, 23.10.2009

http://www.schmersal.net/Bilddata/Si_senso/Pdf/bns33s/bedien/NL/mrl_bns33s_nl.pdf

Operating instructions and Declaration of conformity (en) 673 kB, 21.01.2010

http://www.schmersal.net/Bilddata/Si_senso/Pdf/bns33s/bedien/EN/mrl_bns33s_en.pdf

Operating instructions and Declaration of conformity (fr) 396 kB, 05.11.2009

http://www.schmersal.net/Bilddata/Si_senso/Pdf/bns33s/bedien/FR/mrl_bns33s_fr.pdf

Operating instructions and Declaration of conformity (jp) 533 kB, 11.11.2009

http://www.schmersal.net/Bilddata/Si_senso/Pdf/bns33s/bedien/JP/mrl_bns33s_jp.pdf

Operating instructions and Declaration of conformity (es) 396 kB, 10.11.2009

http://www.schmersal.net/Bilddata/Si_senso/Pdf/bns33s/bedien/ES/mrl_bns33s_es.pdf

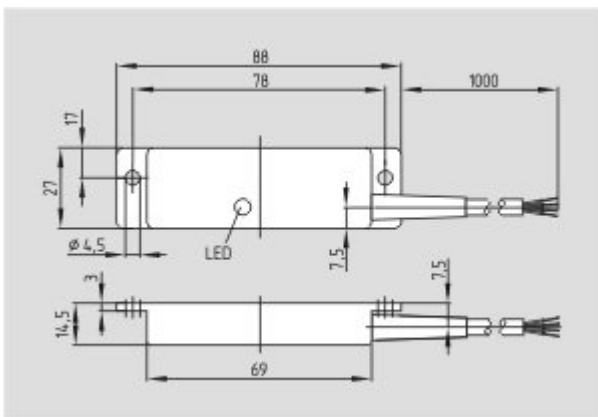
Operating instructions and Declaration of conformity (it) 393 kB, 13.11.2009

http://www.schmersal.net/Bilddata/Si_senso/Pdf/bns33s/bedien/IT/mrl_bns33s_it.pdf

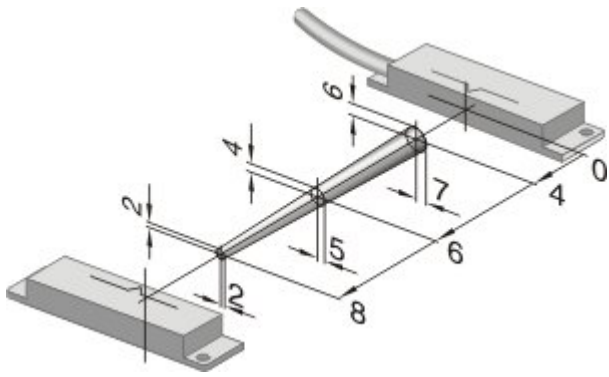
Images



Product photo



Dimensional drawing (basic component)



Characteristic curve

System components

Actuator



1184326 - BPS 33S

- Stainless steel enclosure

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The data and values have been checked thoroughly. Technical modifications and errors excepted.

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