

Datasheet - BNS 33S-12ZG

Safety sensors / BNS 33S



Preferred typ



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

- LED version
- 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

Ordering details

Product type description	BNS 33S-12ZG
Article number	101184325
EAN Code	4030661322216
eCl@ss	27-27-24-02

Approval

Approval



Classification

Standards	EN ISO 13849-1
B10d Normally-closed contact/Normally open contact (NC/NO)	25.000.000
- notice	at max. 20% contact load
Mission time	20 Years
notice	$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{op} \times h_{cp} \times 3600 \text{ s/h}}{t_{cycle}}$

Global Properties

Permanent light	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
Coding available (Y/N)	Yes
Monitoring function of downstream devices (Y/N)	No

Prerequisite evaluation unit	Yes
Recommended safety-monitoring module	AES 1135, AES 1136, 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 2565, AES 2566, AES 2285, AES 3075, SRB202C., SRB400C., AES 3075
Recommended actuator	BPS 33S

Mechanical data

Design of electrical connection	Cable
Cable length	1
Conductors	0,25
AWG-Number	23
mechanical installation conditions	not flush
Active area	Side
Ensured switch distance ON S_{ao}	8 mm
Ensured switch distance OFF S_{ar}	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	VDC
Switch frequency	max. 5 HZ
Switching voltage	max. 24 VDC
Switching current	max. 10 mA
Switching capacity	max. 240 mW

Outputs

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

Electrical data - Safety outputs

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

Electrical data - Diagnostic output

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

LED switching conditions display

LED switching conditions display (Y/N)	Yes
- The LED is illuminated when the guard is closed.	

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.

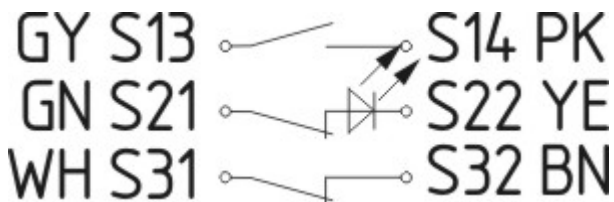
Included in delivery

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

G

without LED switching conditions display

with LED switching conditions display

Documents

Operating instructions and Declaration of conformity (it) 265 kB, 26.06.2017

Code: mrl_bns33s_it

Operating instructions and Declaration of conformity (fr) 286 kB, 04.04.2012

Code: mrl_bns33s_fr

Operating instructions and Declaration of conformity (cn) 343 kB, 27.05.2015

Code: mrl_bns33s_cn

Operating instructions and Declaration of conformity (de) 407 kB, 27.11.2012

Code: mrl_bns33s_de

Operating instructions and Declaration of conformity (de) 258 kB, 06.03.2017

Code: mrl_bns33s_de

Operating instructions and Declaration of conformity (sv) 285 kB, 16.04.2012

Code: mrl_bns33s_sv

Operating instructions and Declaration of conformity (en) 412 kB, 27.11.2012

Code: mrl_bns33s_en

Operating instructions and Declaration of conformity (en) 263 kB, 06.03.2017

Code: mrl_bns33s_en

Operating instructions and Declaration of conformity (jp) 371 kB, 14.01.2013

Code: mrl_bns33s_jp

Operating instructions and Declaration of conformity (da) 256 kB, 24.09.2015

Code: mrl_bns33s_da

Operating instructions and Declaration of conformity (pt) 269 kB, 10.05.2017

Code: mrl_bns33s_pt

Operating instructions and Declaration of conformity (es) 268 kB, 07.04.2017

Code: mrl_bns33s_es

Operating instructions and Declaration of conformity (nl) 278 kB, 04.07.2018

Code: mrl_bns33s_nl

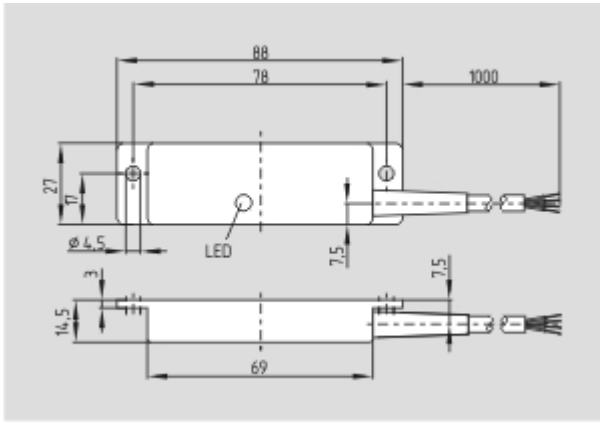
Operating instructions and Declaration of conformity (pl) 296 kB, 22.05.2017

Code: mrl_bns33s_pl

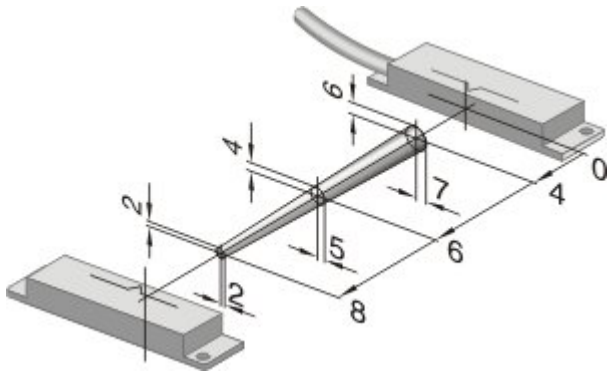
EAC certification (ru) 782 kB, 05.10.2015

Code: q_6044p17_ru

Images



Dimensional drawing (basic component)



Characteristic curve

System components

Actuator



101184326 - 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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