

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

### 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 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, SRB 202C., SRB 400C., AES 3075
Recommended actuator	BPS 33S

## Mechanical data

---

Design of electrical connection	Cable
Cable length	1 m
Conductors	0,25 mm <sup>2</sup>
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	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 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)	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.

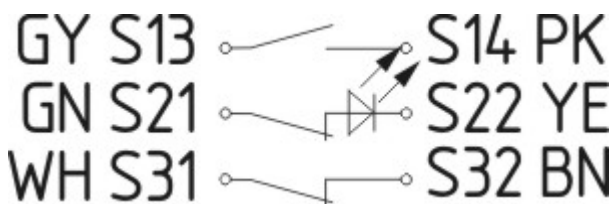
## Included in delivery

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) 263 kB, 06.03.2017

Code: mrl\_bns33s\_en

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

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) 252 kB, 20.02.2013

Code: mrl\_bns33s\_nl

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

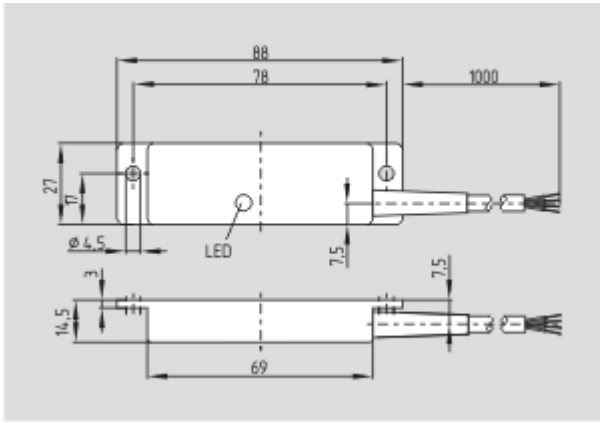
Code: mrl\_bns33s\_pl

**EAC certification** (ru) 782 kB, 05.10.2015

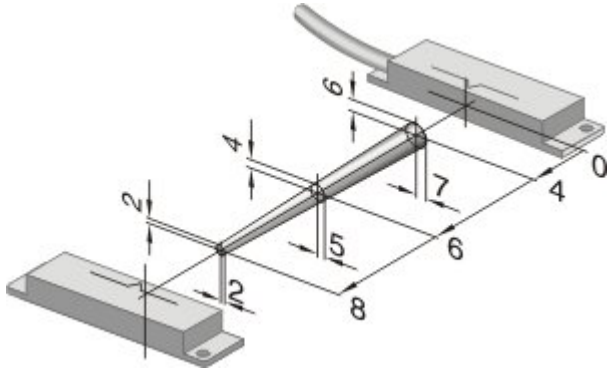
Code: q\_6044p17\_ru

## Images

---



Dimensional drawing (basic component)



Characteristic curve

## System components

### Actuator



**101184326 - BPS 33S**

- Stainless steel enclosure

K.A. Schmersal GmbH & Co. KG, Mödinghofe 30, D-42279 Wuppertal

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

Generiert am 05.10.2017 - 11:40:20h Kasbase 3.2.7.F.64I