

Datasheet - BNS 33S-12Z

Safety sensors / BNS 33S



Preferred typ



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

- 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-12Z |
| Article number | 101184324 |
| EAN Code | 4030661322209 |
| 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 | $MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{cycle}}$ |

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 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, SRB202C., SRB400C., AES 3075, SRB219IT, SRB308IT |
| 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 | 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 |
| 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) | 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.

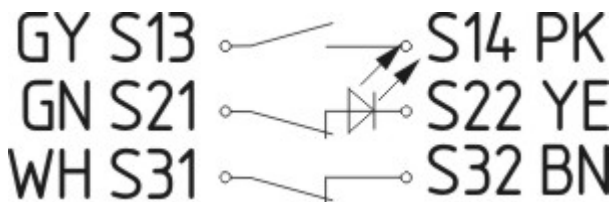
Included in delivery

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) | |
| <i>without</i> | without LED switching conditions display |
| G | 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

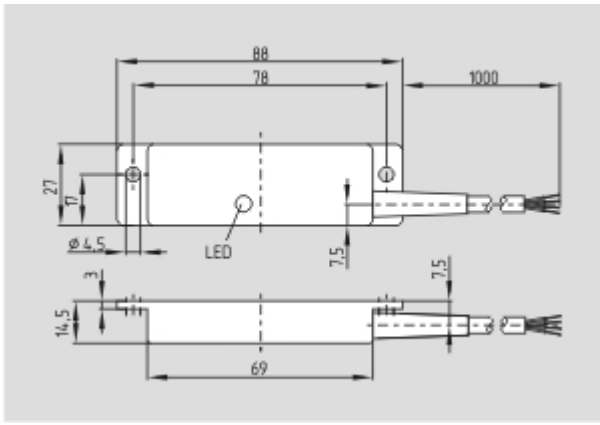
Operating instructions and Declaration of conformity (pl) 296 kB, 22.05.2017

Code: mrl_bns33s_pl

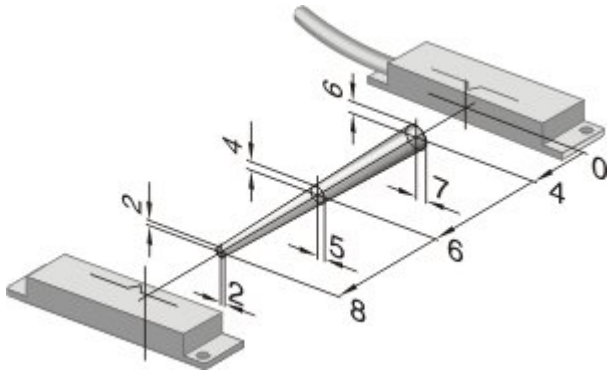
EAC certification (ru) 782 kB, 05.10.2015

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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