

Datasheet - BNS 33-11ZG-2237

Safety sensors / BNS 33



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

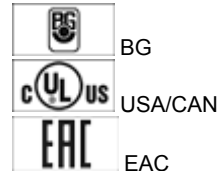
- Actuation from cable direction possible
- Thermoplastic enclosure
- LED version
- Concealed mounting possible
- Particularly suitable for sliding doors
- Insensitive to transverse misalignment
- 88 mm x 25 mm x 13 mm
- Long life
- no mechanical wear
- Insensitive to soiling
- AS-Interface Safety at Work available

Ordering details

| | |
|--------------------------|------------------|
| Product type description | BNS 33-11ZG-2237 |
| Article number | 101135576 |
| EAN Code | 4030661280288 |
| 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 33 |
| Standards | IEC 60947-5-3, BG-GS-ET-14 |
| Compliance with the Directives (Y/N) | Yes |
| Materials | |
| - Material of the housings | Plastic, glass-fibre reinforced thermoplastic |
| - Material of the cable mantle | PVC |
| Weight | 60 |

| | |
|---|---|
| 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 2366, AES 2565, AES 2566, AES 2285, AES 3075, SRB202C., SRB400C. |
| Recommended actuator | BPS 33, BPS 33-2326 |

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} | 5 mm / 8 mm |
| - BPS 33 = 5 mm Actuating magnet | |
| - BPS 33-2326 = 8 mm Actuating magnet | |
| Ensured switch distance OFF S_{ar} | 15 mm / 18 mm |
| - BPS 33-2326 = 18 mm Actuating magnet | |
| - BPS 33 = 15 mm Actuating magnet | |
| Repeat accuracy R_R | $\leq 0,1 \times S_{ao}$ |
| 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 | +70 °C |
| Protection class | IP67 |

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 | 1 |

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 door is open. | |

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 | 25 mm |
| - Length of sensor | 13 mm |

notice

Contact symbols shown for the closed condition of the guard device.
The contact configuration for versions with or without LED is identical.

Included in delivery

Actuators must be ordered separately.

Ordering code

BNS 33-(1)Z(2)-(3)-(4)

| | |
|----------------|--|
| (1) | |
| 02 | 2 Opener (NC) |
| 11 | 1 Normally open contact (NO) / 1 Opener (NC) |
| 12 | 1 Normally open contact (NO) / 2 Opener (NC) |
| (2) | |
| <i>without</i> | without LED switching conditions display |
| G | with LED switching conditions display |
| (3) | |
| <i>without</i> | with cable |
| ST | with connector M8 |
| (4) | |
| 2187 | Individual contact outlet |
| 2187-10 | Individual contact outlet, with LED |

Documents

Operating instructions and Declaration of conformity (jp) 551 kB, 18.08.2017

Code: mrl_bns33_jp

Operating instructions and Declaration of conformity (es) 298 kB, 16.09.2016

Code: mrl_bns33_es

Operating instructions and Declaration of conformity (pt) 300 kB, 03.06.2016

Code: mrl_bns33_pt

Operating instructions and Declaration of conformity (en) 299 kB, 04.03.2016

Code: mrl_bns33_en

Operating instructions and Declaration of conformity (pl) 327 kB, 29.04.2016

Code: mrl_bns33_pl

Operating instructions and Declaration of conformity (de) 300 kB, 04.03.2016

Code: mrl_bns33_de

Operating instructions and Declaration of conformity (cs) 307 kB, 08.01.2013

Code: mrl_bns33_cs

Operating instructions and Declaration of conformity (nl) 322 kB, 28.06.2018

Code: mrl_bns33_nl

Operating instructions and Declaration of conformity (da) 282 kB, 08.01.2013

Code: mrl_bns33_da

Operating instructions and Declaration of conformity (sv) 279 kB, 09.01.2013

Code: mrl_bns33_sv

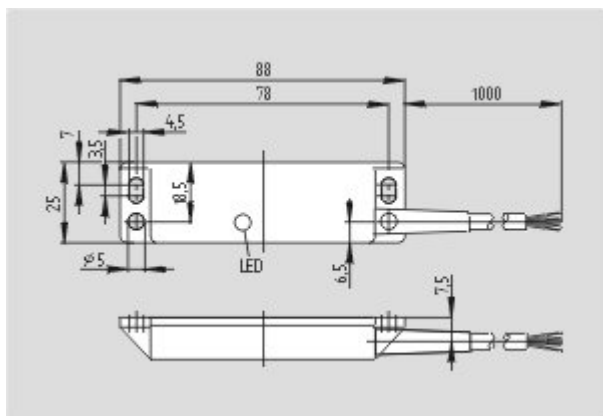
Operating instructions and Declaration of conformity (it) 294 kB, 02.09.2016

Code: mrl_bns33_it

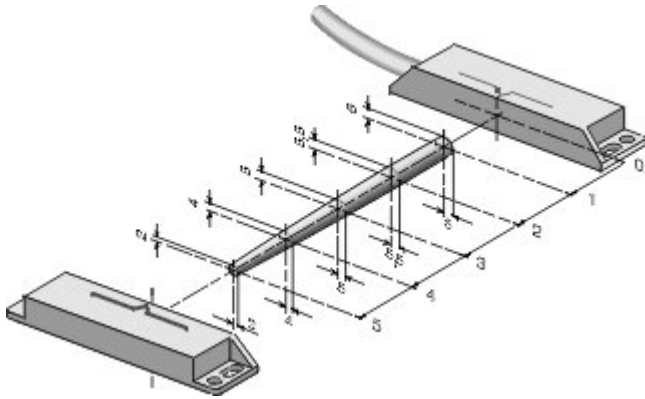
EAC certification (ru) 782 kB, 05.10.2015

Code: q_6044p17_ru

Images



Dimensional drawing (basic component)



Characteristic curve

System components

Actuator

101107771 - BPS 33



101148482 - BPS 33-2326

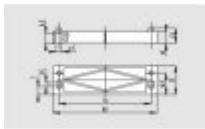
- higher switching distance S_{ao} 8 mm



Accessories

101158893 - SPACER BN 31/33

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



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

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