

Datasheet - BNS 303-11ZG

Safety sensors / BNS 303



Preferred typ



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

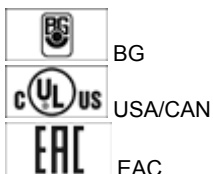
- LED version
- Thermoplastic enclosure
- Suitable for food processing industry only in combination with BPS 303 SS
- Long life
- no mechanical wear
- Ø M30
- Insensitive to transverse misalignment
- Insensitive to soiling

Ordering details

| | |
|--------------------------|---------------|
| Product type description | BNS 303-11ZG |
| Article number | 101138262 |
| EAN Code | 4030661281148 |
| 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 303 |
| 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 nuts | thermoplastic |
| - Material of the cable mantle | PVC |
| Weight | 60 |
| Coding available (Y/N) | Yes |
| Monitoring function of downstream devices (Y/N) | No |
| Prerequisite evaluation unit | |
| Recommended safety-monitoring module | AES, SRB202C., SRB400C., SRB211AN, SRB207AN |
| Recommended actuator | BPS 300 , BPS 303 , BPS 303 SS |

Mechanical data

| | |
|--------------------------------------|---|
| Design of electrical connection | Cable |
| Cable length | 1 |
| Conductors | 4 x 0,25 |
| AWG-Number | 23 |
| mechanical installation conditions | quasi-flush |
| Active area | |
| Ensured switch distance ON S_{ao} | 5 mm |
| Ensured switch distance OFF S_{ar} | 15 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 |
| Tightening torque for nuts | A/F 36 max. 300 Ncm |

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 |
| Design of output signal switching device | |

Electrical data - Safety outputs

| | |
|---|---|
| Number of secure semi-conductor outputs | 0 |
| Number of secure outputs with contact | 2 |

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 | |
| - Length of sensor | 44 mm |
| - Diameter of sensor | M30 |

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

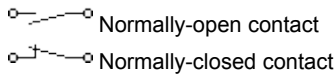
| | |
|--|---------|
| Actuators must be ordered separately. | |
| Mounting accessories - Nuts M 30 x 1,5 | 2 piece |

Diagram



Note Diagram

-  positive break NC contact
-  active
-  no active



Ordering suffix

The applicable ordering suffix is added at the end of the part number of the safety switch.

Order example: BNS 303-11ZG-2211

...-2211 higher switching distance
Sar: 8 mm
Sao: 18 mm

Ordering code

BNS 303-(1)Z(2)-(3)-(4)

| | |
|----------------|--|
| (1) | |
| 11 | 1 Normally open contact (NO) / 1 Opener (NC) |
| 12 | 1 Normally open contact (NO) / 2 Opener (NC) |
| 02 | - / 2 Opener (NC) |
| 03 | - / 3 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 M12 |
| (4) | |
| 2187 | Individual contact outlet |
| 2211 | higher switching distance |

Documents

Operating instructions and Declaration of conformity (it) 445 kB, 03.01.2018

Code: mrl_bns303_it

Operating instructions and Declaration of conformity (nl) 447 kB, 03.01.2018

Code: mrl_bns303_nl

Operating instructions and Declaration of conformity (pt) 450 kB, 03.01.2018

Code: mrl_bns303_pt

Operating instructions and Declaration of conformity (jp) 551 kB, 03.01.2018

Code: mrl_bns303_jp

Operating instructions and Declaration of conformity (fr) 451 kB, 03.01.2018

Code: mrl_bns303_fr

Operating instructions and Declaration of conformity (es) 448 kB, 03.01.2018

Code: mrl_bns303_es

Operating instructions and Declaration of conformity (de) 413 kB, 15.12.2017

Code: mrl_bns303_de



101117076 - BPS 303

- Suitable for food processing industry



101141156 - BPS 303 SS

- Suitable for food processing industry

Mounting accessories



101068520 - MOUNTING CLAMP H 30

- For a smooth fitting of the proximity switches with cylindric shape \varnothing 30 mm or thread M30

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

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