Datasheet - BNS 303-11z

Safety sensors / BNS 303









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

- thermoplastic enclosure
- · Long life
- no mechanical wear
- Ø M30
- · Suitable for food processing industry
- · Insensitive to transverse misalignment
- Insensitive to soiling

Ordering details

Product type description

Article number

EAN code

BNS 303-11Z 101115682

4030661049052



Approval



Classification

Standards

B_{10d} Opener/Normally open contact (NC/NO)

- notice

Mission time

notice

EN ISO 13849-1 25.000.000

at max. 20% contact load

20 Years

$$MTTF_d = \frac{B_{10d}}{0.1 \times n_{op}}$$

$$n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{oyole}}$$

Global Properties

Product name BNS 303

Standards IEC 60947-5-3, BG-GS-ET-14

Compliance with the Directives (Y/N) € €

Materials

- Material of the housings Plastic, glass-fibre reinforced thermoplastic

Yes

- Material of the nuts thermoplastic

- Material of the cable mantle PVC
Weight 65 g
Coding available (Y/N) Yes
Monitoring function of downstream devices (Y/N) No

Prerequisite evaluation unit

Recommended safety-monitoring module SRB 301AN, AES 1337

Recommended actuator BPS 300, BPS 303, BPS 303 SS

Mechanical data

Design of electrical connection Cable

Cable length 1 m

Conductors 4 x 0,25 mm²

AWG-Number 23

mechanical installation conditions quasi-flush

Active area

Ensured switch distance ON 5 mm

Ensured switch distance OFF 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
 Max. environmental temperature
 +70 °C

Storage and transport temperature

- Min. Storage and transport temperature $$-25\ ^{\circ}\text{C}$$ - Max. Storage and transport temperature $$+70\ ^{\circ}\text{C}$$

Protection class IP67

Electrical data

Integrated Safety monitoring module available (Y/N)

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. 400 mA
Switching capacity max. 10 W

Outputs

Design of control output Other, Reed contakts

Number of shutters 1 piece
Number of openers 1 piece

Electrical data - Safety outputs

Number of secure semi-conductor outputs 0 piece
Number of secure outputs with contact 2 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)

ATEX

Explosion protection categories for gases

Explosion protected category for dusts

None

No

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.

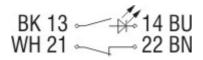
The contact configuration for versions with or without LED is identical.

Included in delivery

Actuators must be ordered separately.

Mounting accessories - Nuts M 30 x 1,5 2 piece

Diagram



Note Diagram

opositive break NC contact



no active

o-___o Normally-open contact

o----- Normally-closed contact

Ordering suffix

Order example: BNS 303-11z-2211

...-2211

higher switching distance

Sar: 8 mm Sao: 18 mm

Ordering code

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

(1)

11 Normally open contact (NO) / 1 Opener (NC)

1 Normally open contact (NO) / 2 Opener (NC)

02 - / 2 Opener (NC)

- / 3 Opener (NC)

(2)

without LED switching conditions display

with LED switching conditions display

(3)

without with cable

ST with connector M12

(4)

2187 Individual contact outlet
2211 higher switching distance

Documents

Operating instructions and Declaration of conformity (it) 886 kB, 21.06.2010

Code: mrl_bns303_it

Operating instructions and Declaration of conformity (nl) 889 kB, 21.06.2010

Code: mrl_bns303_nl

Operating instructions and Declaration of conformity (pt) 432 kB, 05.07.2012

Code: mrl_bns303_pt

Operating instructions and Declaration of conformity (jp) 880 kB, 09.08.2011

Code: mrl_bns303_jp

Operating instructions and Declaration of conformity (fr) $887\ kB$, 21.06.2010

Code: mrl_bns303_fr

Operating instructions and Declaration of conformity (es) 887 kB, 21.06.2010

Code: mrl_bns303_es

Operating instructions and Declaration of conformity (de) 411 kB, 24.02.2014

Code: mrl_bns303_de

Operating instructions and Declaration of conformity (en) 408 kB, 24.02.2014

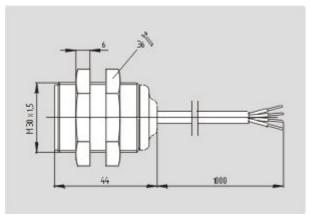
Code: mrl_bns303_en

Operating instructions and Declaration of conformity (pl) 398 kB, 12.07.2013

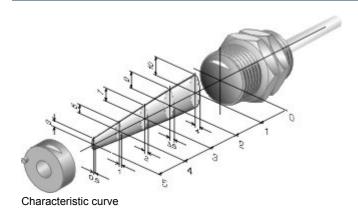
Code: mrl_bns303_pl

Code: mrl_bns303_da

Images



Dimensional drawing (basic component)



System components

Actuator



101113734 - BPS 300



101117076 - BPS 303

• Suitable for food processing industry

101141156 - BPS 303 SS

• Suitable for food processing industry



Mounting accessories



101068520 - MOUNTING CLAMP H 30

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

K.A. Schmersal GmbH & Co. KG, Möddinghofe 30, D-42279 Wuppertal The data and values have been checked throroughly. Technical modifications and errors excepted. Generiert am 10.03.2014 - 15:58:30h Kasbase 2.2.18.F DBI

