Datasheet - BNS 33-11Z-ST

Safety sensors / BNS 33

 ☒ Preferred typ





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

- Thermoplastic enclosure
- · Concealed mounting possible
- · 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
- Connector M8 x 1, 4-pole

Ordering details

Product type description

Article number

EAN code

eCl@ss

BNS 33-11Z-ST

101140997

4030661120201

27-27-24-02

Approval

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

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

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

Global Properties

Product name

Standards

Compliance with the Directives (Y/N) C €

Materials

- Material of the housings

Weight

Monitoring function of downstream devices (Y/N)

BNS 33

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

Yes

Plastic, glass-fibre reinforced thermoplastic

20 g

No

Prerequisite evaluation unit

Recommended safety-monitoring module

Recommended actuator

BPS 33, BPS 33-2326

Yes

Mechanical data

Design of electrical connection Connector M8
mechanical installation conditions not flush
Active area Side

Ensured switch distance ON 5 mm / 8 mm

- BPS 33 = 5 mm Actuating magnet

- BPS 33-2326 = 8 mm Actuating magnet

Ensured switch distance OFF 15 mm / 18 mm

- BPS 33-2326 = 18 mm Actuating magnet

- BPS 33 = 15 mm Actuating magnet

Repeat accuracy R \leq 0,1 x 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
 Max. environmental temperature
 +70 °C

Storage and transport temperature

Min. Storage and transport temperature
 Max. Storage and transport temperature
 Protection class

Electrical data

Integrated Safety monitoring module available (Y/N)

Cross circuit/short circuit recognition possible (Y/N)

Voltage type

VAC/DC

Switch frequency

max. 5 Hz

Switching voltage

max. 60 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 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)

No

ATEX

Explosion protection categories for gases

Explosion protected category for dusts

None

Dimensions

Dimensions of the sensor

- Width of sensor
- Height of sensor
- Length of sensor
13 mm

notice

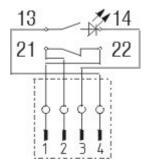
Contact symbols shown for the closed condition of the guard device.

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

Included in delivery

Actuators must be ordered separately.

Diagram



Note Diagram

opositive break NC contact

 $^{\scriptsize\textcircled{\scriptsize{1}}}$ active

no active

o----- Normally-open contact

o----- Normally-closed contact

Ordering code

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

(1)

02 2 Opener (NC)

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

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

(2)

without without LED switching conditions display

with LED switching conditions display

(3)

without with cable

ST with connector M8

(4)

2187 Individual contact outlet

2187-10 Individual contact outlet, with LED 2237 Actuation from cable direction

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 (fr) 299 kB, 29.04.2016

Code: mrl_bns33_fr

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) 281 kB, 09.01.2013

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

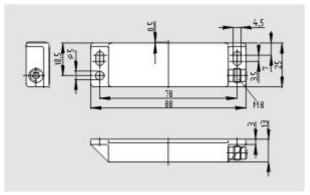
Operating instructions and Declaration of conformity (it) 294 kB, 02.09.2016

Code: mrl bns33 it

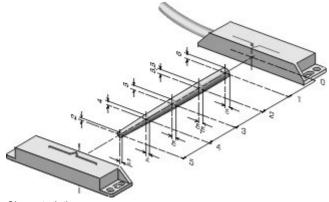
EAC certification (ru) 782 kB, 05.10.2015

Code: q_6044p17_ru

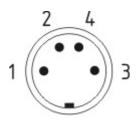
Images



Dimensional drawing (basic component)



Characteristic curve



Contact arrangement

System components

Actuator

101107771 - BPS 33

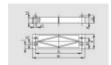


101148482 - BPS 33-2326

• higher switching distance Sao 8 mm



Accessories



101158893 - SPACER BN 31/33

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

Connector



101194059 - BNS-Y-11

- \bullet enables the interconnection and the connection of BNS safety sensors to a common safety monitoring module
- for BNS 33, BNS 36, BNS 260 (with 1 NC/1 NO)

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 30.10.2017 - 13:31:55h Kasbase 3.2.7.F.64l