

## Datasheet - BNS 33-11Z-2063

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

### Ordering details

Product type description	BNS 33-11Z-2063
Article number	101112628
EAN code	4030661024431
eCl@ss	27-27-24-02

### Approval

Approval



### Classification

Standards	EN ISO 13849-1
B <sub>10d</sub> Opener/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

Product name	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	55 g
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, SRB 202C., SRB 400C.

Recommended actuator

BPS 33, BPS 33-2326

## Mechanical data

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Design of electrical connection	Cable
Cable length	1 m
Conductors	0,25 mm <sup>2</sup>
AWG-Number	23
mechanical installation conditions	not flush
Active area	Side
Ensured switch distance ON	5 mm / 8 mm
- BPS 33-2326 = 8 mm Actuating magnet	
- BPS 33 = 5 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	≤ 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

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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

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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. 120 V
Switching current	max. 500 mA
Switching capacity	max. 10 W

## Outputs

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Design of control output	Other, Reed kontakts
Number of shutters	1 piece
Number of openers	1 piece

## Electrical data - Safety outputs

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

### Electrical data - Diagnostic output

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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

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LED switching conditions display (Y/N)	No
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### ATEX

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Explosion protection categories for gases	None
Explosion protected category for dusts	None

### Dimensions

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Dimensions of the sensor	
- Width of sensor	88 mm
- Height of sensor	25 mm
- Length of sensor	13 mm

### notice

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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

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Actuators must be ordered separately.

### Ordering code

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

<b>(1)</b>	
<b>02</b>	2 Opener (NC)
<b>11</b>	1 Normally open contact (NO) / 1 Opener (NC)
<b>12</b>	1 Normally open contact (NO) / 2 Opener (NC)
<b>(2)</b>	
<i>without</i>	without LED switching conditions display
<b>G</b>	with LED switching conditions display
<b>(3)</b>	
<i>without</i>	with cable
<b>ST</b>	with connector M8
<b>(4)</b>	
<b>2187</b>	Individual contact outlet
<b>2187-10</b>	Individual contact outlet, with LED
<b>2237</b>	Actuation from cable direction

### Documents

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**Operating instructions and Declaration of conformity (jp)** 376 kB, 15.01.2013

Code: mrl\_bns33\_jp

**Operating instructions and Declaration of conformity (es)** 289 kB, 09.03.2016

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)** 282 kB, 28.01.2016

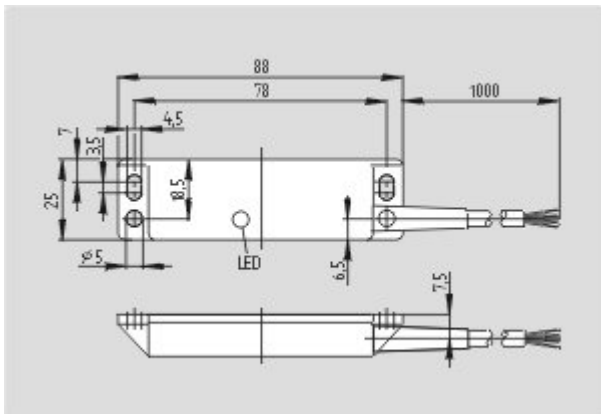
Code: mrl\_bns33\_it

**EAC certification (ru)** 782 kB, 05.10.2015

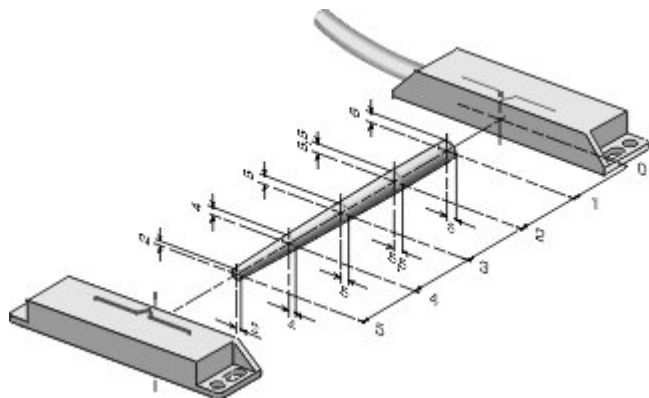
Code: q\_6044p17\_ru

## Images

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Dimensional drawing (basic component)



Characteristic curve

## System components

### Actuator

101107771 - BPS 33



101148482 - BPS 33-2326

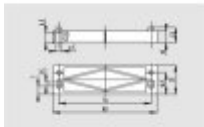
• higher switching distance  $S_{ao}$  8 mm



### Accessories

101158893 - SPACER BN 31/33

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



K.A. Schmersal GmbH & Co. KG, Möddinghofe 30, D-42279 Wuppertal

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

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