

## Datasheet - EX-BNS 33-12ZG-3G/D

Safety sensors / EX-BNS 33



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

- LED version
- Ex certified
- Thermoplastic enclosure
- Insensitive to soiling
- 88 mm x 25 mm x 13 mm
- no mechanical wear
- Long life
- Concealed mounting possible
- Insensitive to transverse misalignment

### Ordering details

Product type description	EX-BNS 33-12ZG-3G/D
Article number	EX-BNS 33-12ZG-3G/D
EAN Code	
eCl@ss	27-27-24-02


### Approval

Approval	ATEX
----------	------

### 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	EX-BNS 33
Standards	EN 60079-0, EN 60079-15, EN 60079-31, IEC 60947-5-3, EN 13463-1, EN 13463-5, 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
Housing construction form	Block
Weight	60
Monitoring function of downstream devices (Y/N)	No
Prerequisite evaluation unit	Yes
Recommended safety-monitoring module	

## Mechanical data

---

Design of electrical connection	Cable
Cable length	1
Conductors	4 x 0,25
AWG-Number	23
mechanical installation conditions	not flush
Active area	Side
Ensured switch distance ON $S_{ao}$	5 mm
Ensured switch distance OFF $S_{ar}$	15 mm
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
Impact energy	max. 2 Nm

## Ambient conditions

---

Ambient temperature	
Storage and transport temperature	
Protection class	IP67

## Electrical data

---

Integrated Safety monitoring module available (Y/N)	No
Cross circuit/short circuit recognition possible (Y/N)	No
Voltage type	VDC
Switch frequency	max. 5 HZ
Switching voltage	24 VDC max.
Switching current	10 mA max.
Switching capacity	240 mW max.

## Outputs

---

Design of control output	Other, Reed kontakts
Number of shutters	1
Number of openers	2

## 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

---

EX-marking	EX II 3D Ex tc IIIC T80°C Dc X EX II 3G Ex nC IIC T6 Gc X
Explosion protection categories for gases	3G
Explosion protection Zones for gases	2
Explosion protected category for dusts	3D
Explosion protection Zones for dusts	22

## Dimensions

---

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

## 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.

## Keywords

---






Keywords	Ex, EEx, ATEX, Ex BNS33, Ex BNS 33, BNS33 Ex, BNS33ex, BNS 33ex, ATEX BNS 33
----------	--

## Diagram

---



Note Diagram

-  positive break NC contact
-  active
-  no active
-  Normally-open contact
-  Normally-closed contact

## Documents

---

**Operating instructions and Declaration of conformity** (es) 296 kB, 10.10.2017

Code: mrl\_ex-bns33\_es

**Operating instructions and Declaration of conformity** (en) 295 kB, 04.10.2017

Code: mrl\_ex-bns33\_en

**Operating instructions and Declaration of conformity** (en) 278 kB, 12.08.2014

Code: mrl\_ex-bns33\_en

**Operating instructions and Declaration of conformity (nl)** 317 kB, 11.07.2018

Code: mrl\_ex-bns33\_nl

**Operating instructions and Declaration of conformity (de)** 293 kB, 04.10.2017

Code: mrl\_ex-bns33\_de

**Operating instructions and Declaration of conformity (fr)** 202 kB, 13.10.2017

Code: mrl\_ex-bns33\_fr

**Operating instructions and Declaration of conformity (jp)** 370 kB, 09.09.2014

Code: mrl\_ex-bns33\_jp

**Operating instructions and Declaration of conformity (pl)** 336 kB, 01.02.2018

Code: mrl\_ex-bns33\_pl

**Operating instructions and Declaration of conformity (it)** 294 kB, 10.10.2017

Code: mrl\_ex-bns33\_it

**Operating instructions and Declaration of conformity (cs)** 303 kB, 14.01.2015

Code: mrl\_ex-bns33\_cs

**Operating instructions and Declaration of conformity (pt)** 299 kB, 10.10.2017

Code: mrl\_ex-bns33\_pt

**Brochure (de)** 7 MB, 19.10.2016

Code: b\_atep01\_de

**Brochure (en)** 7 MB, 19.10.2016

Code: b\_atep01\_en

**Brochure (it)** 3 MB, 20.07.2007

Code: b\_atep05

**Brochure (es)** 5 MB, 18.08.2009

Code: b\_atep09

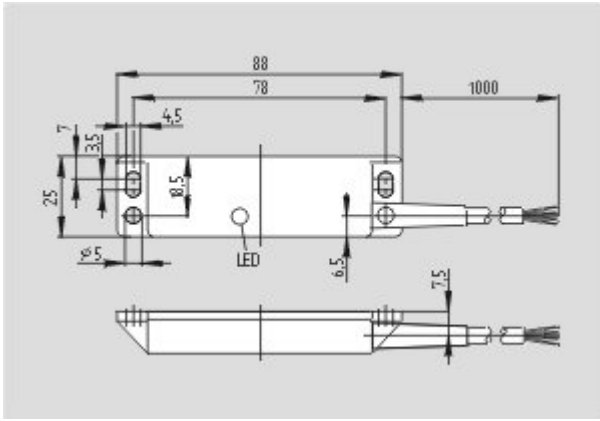
## Images

---

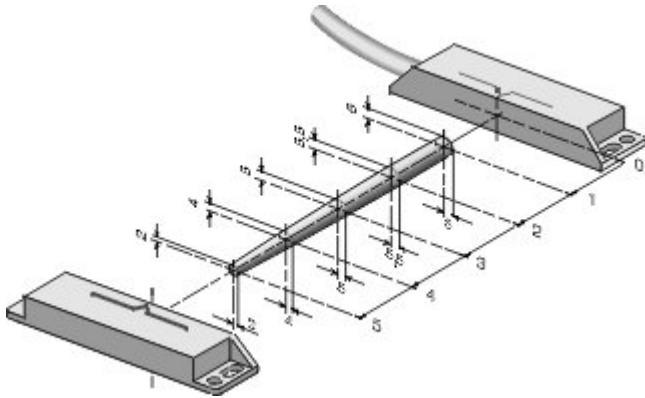


Product photo

---



Dimensional drawing (basic component)



Characteristic curve

## System components

### Actuator

101185182 - EX-BPS 33-3G/D



### Accessories

101158893 - SPACER BN 31/33

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

