

Datasheet - EX-BNS 33-12Z-3G/D

Safety sensors / EX-BNS 33



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

- 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 33-12Z-3G/D
Article number	EX-BNS 33-12Z-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	$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{op} \times h_{cp} \times 3600 \text{ s/h}}{t_{cycle}}$

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	
Monitoring function of downstream devices (Y/N)	No
Prerequisite evaluation unit	Yes
Recommended safety-monitoring module	
Recommended actuator	EX-BPS 33-3G/D

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	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 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)	No
--	----

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

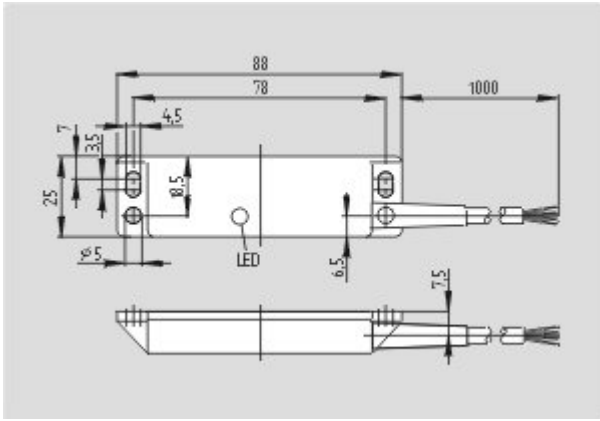
Brochure (es) 5 MB, 18.08.2009

Code: b_atep09

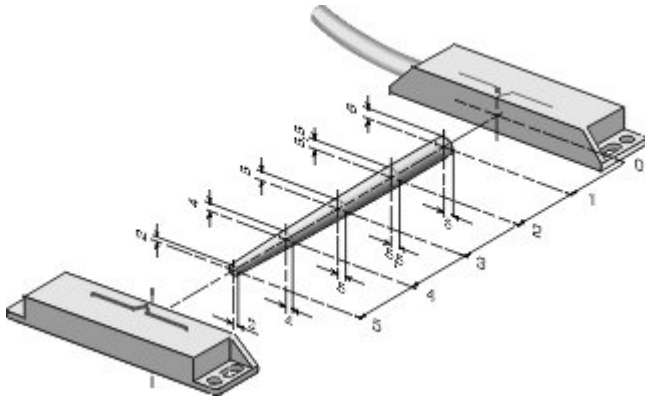
Images



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

