

Datasheet - EX-BNS 250-12Z-2187-3G/D

Safety sensors / EX-BNS 250



- Ex certified
- Thermoplastic enclosure
- Small body
- 33 mm x 25 mm x 13 mm
- Concealed mounting possible
- Long life
- no mechanical wear
- Insensitive to transverse misalignment
- Insensitive to soiling
- Individual contact outlet

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

Ordering details

Product type description	EX-BNS 250-12Z-2187-3G/D
Article number	101179980
EAN Code	4030661332604
eCl@ss	27-27-24-02

Approval

Approval	ATEX
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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 250
Standards	EN 60079-0, EN 60079-15, EN 60079-31, IEC 60947-5-3, EN 13463-1,

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	58
Coding available (Y/N)	Yes
Monitoring function of downstream devices (Y/N)	No
Prerequisite evaluation unit	Yes
Recommended safety-monitoring module	
Recommended actuator	EX-BPS 250-3G/D

Mechanical data

Design of electrical connection	Cable
Cable length	1
Conductors	6 x 0,25
AWG-Number	23
mechanical installation conditions	not flush
Active area	front side
Ensured switch distance ON S_{ao}	4 mm
Ensured switch distance OFF S_{ar}	14 mm
Type of actuation	Magnet
Direction of motion	head-on with regard to the active surface
resistance to shock	30 g / 11 ms
Resistance to vibration	10 ... 55 HZ, Amplitude 1 mm
Impact energy	max. 1 Nm

Ambient conditions

Ambient temperature	
- Min. environmental temperature	-25 °C
- Min. environmental temperature	-25
- Max. environmental temperature	+70
Storage and transport temperature	
- Min. Storage and transport temperature	-25 °C
- Min. Storage and transport temperature	-25
- Max. Storage and transport temperature	+70 °C
- Max. Storage and transport temperature	+70
Protection class	IP67

Electrical data

Integrated Safety monitoring module available (Y/N)	No
Cross circuit/short circuit recognition possible (Y/N)	Yes
Voltage type	VDC
Switch frequency	max. 5 HZ
Switching voltage	24 VDC max.
Switching current	100 mA max.
Switching capacity	1 W 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)	No
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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	33
- 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.

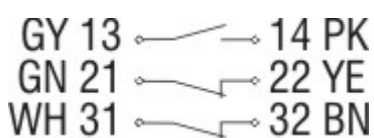
Included in delivery

Actuators must be ordered separately.

Keywords

Keywords	Ex, EEx, ATEX, Ex BNS250, Ex BNS 250, BNS250 Ex, BNS250ex, BNS 250ex, ATEX BNS 250
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Diagram



Note Diagram



positive break NC contact



active



no active



Normally-open contact



Normally-closed contact

Documents

Operating instructions and Declaration of conformity (da) 243 kB, 04.06.2013

Code: mrl_ex-bns250-2187_da

Operating instructions and Declaration of conformity (nl) 307 kB, 06.08.2018

Code: mrl_ex-bns250-2187_nl

Operating instructions and Declaration of conformity (jp) 782 kB, 27.07.2011

Code: mrl_ex-bns250-2187_jp

Operating instructions and Declaration of conformity (en) 286 kB, 17.10.2017

Code: mrl_ex-bns250-2187_en

Operating instructions and Declaration of conformity (pt) 310 kB, 12.01.2018

Code: mrl_ex-bns250-2187_pt

Operating instructions and Declaration of conformity (cs) 259 kB, 04.06.2013

Code: mrl_ex-bns250-2187_cs

Operating instructions and Declaration of conformity (pl) 321 kB, 16.02.2018

Code: mrl_ex-bns250-2187_pl

Operating instructions and Declaration of conformity (fr) 309 kB, 07.12.2017

Code: mrl_ex-bns250-2187_fr

Operating instructions and Declaration of conformity (es) 300 kB, 03.11.2017

Code: mrl_ex-bns250-2187_es

Operating instructions and Declaration of conformity (it) 342 kB, 20.10.2017

Code: mrl_ex-bns250-2187_it

Operating instructions and Declaration of conformity (de) 399 kB, 26.10.2012

Code: mrl_ex-bns250-2187_de

Brochure (de) 7 MB, 19.10.2016

Code: b_atep01_de

Brochure (en) 7 MB, 19.10.2016

Code: b_atep01_en

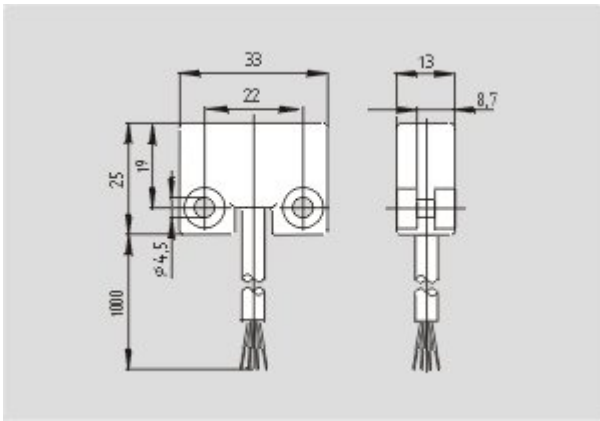
Brochure (it) 3 MB, 20.07.2007

Code: b_atep05

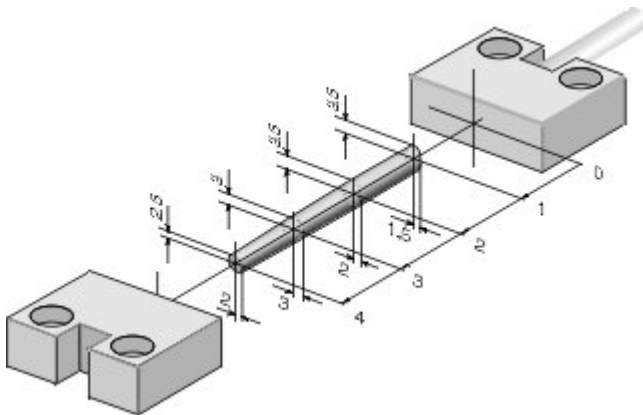
Brochure (es) 5 MB, 18.08.2009

Code: b_atep09

Images



Dimensional drawing (basic component)



Characteristic curve

System components

Actuator



101183235 - EX-BPS 250-3G/D

Accessories



101131223 - SPACER BNS 250

- to mount the magnetic safety sensor and actuator on ferromagnetic material
 - Suitable for food processing industry
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