

## Datasheet - EX-BNS 303-12Z-2187-3G/D

Safety sensors / EX-BNS 303



- Ex certified
- Thermoplastic enclosure
- Long life
- Ø M30
- no mechanical wear
- Suitable for food processing industry
- Insensitive to transverse misalignment
- Insensitive to soiling
- With coding

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

### Ordering details

Product type description	EX-BNS 303-12Z-2187-3G/D
Article number	101185026
EAN code	4030661333113
eCl@ss	27-27-24-02

### Approval

Approval	ATEX
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### Classification

Standards	EN ISO 13849-1
B10d 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	EX-BNS 303
Standards	EN 60079-0, EN 60079-15, EN 60079-31, IEC 60947-5-3, BG-GS-ET-14

Compliance with the Directives (Y/N) 

Yes

#### Materials

- Material of the housings
- Material of the nuts
- Material of the cable mantle

Plastic, glass-fibre reinforced thermoplastic  
thermoplastic  
PVC

Housing construction form

cylinder, thread

Weight

95 g

Coding available (Y/N)

Yes

Monitoring function of downstream devices (Y/N)

No

Prerequisite evaluation unit

AES 1102, AES 1112, AES 6112, AES 7112

Recommended safety-monitoring module

Recommended actuator

BPS 300 , BPS 303 , BPS 303 SS , coded

### Mechanical data

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Design of electrical connection

Cable

Cable length

1 m

Conductors

6 x 0,25 mm<sup>2</sup>

AWG-Number

23

mechanical installation conditions

quasi-flush

Active area

front side

Ensured switch distance ON S<sub>ao</sub>

5 mm

Ensured switch distance OFF S<sub>ar</sub>

15 mm

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. 4 Nm

Tightening torque for nuts

A/F 36 max. 300 Ncm

### 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. 100 VAC/DC

Switching current

max. 400 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	2 piece
Design of output signal switching device	

### 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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	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

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Dimensions of the sensor	
- Length of sensor	44 mm
- Diameter of sensor	M30

### 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.	
Mounting accessories	2 Nuts M 30 x 1,5

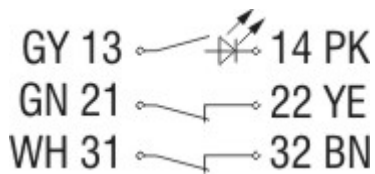
### Keywords

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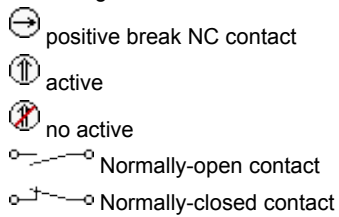
Keywords	Ex, EEx, ATEX, Ex BNS303, EX BNS 303, BNS 303 Ex, BNS303ex, BNS 303 ex, ATEX BNS 303
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### Diagram

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Note Diagram



## Documents

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**Operating instructions and Declaration of conformity (fr)** 613 kB, 09.09.2014  
Code: mrl\_ex-bns303-2187\_fr

**Operating instructions and Declaration of conformity (pl)** 134 kB, 20.08.2014  
Code: mrl\_ex-bns303-2187\_pl

**Operating instructions and Declaration of conformity (it)** 605 kB, 03.09.2014  
Code: mrl\_ex-bns303-2187\_it

**Operating instructions and Declaration of conformity (cs)** 644 kB, 22.06.2015  
Code: mrl\_ex-bns303-2187\_cs

**Operating instructions and Declaration of conformity (en)** 620 kB, 12.08.2014  
Code: mrl\_ex-bns303-2187\_en

**Operating instructions and Declaration of conformity (de)** 621 kB, 12.08.2014  
Code: mrl\_ex-bns303-2187\_de

**Operating instructions and Declaration of conformity (nl)** 607 kB, 08.10.2014  
Code: mrl\_ex-bns303-2187\_nl

**Operating instructions and Declaration of conformity (jp)** 710 kB, 09.09.2014  
Code: mrl\_ex-bns303-2187\_jp

**Operating instructions and Declaration of conformity (es)** 117 kB, 20.08.2014  
Code: mrl\_ex-bns303-2187\_es

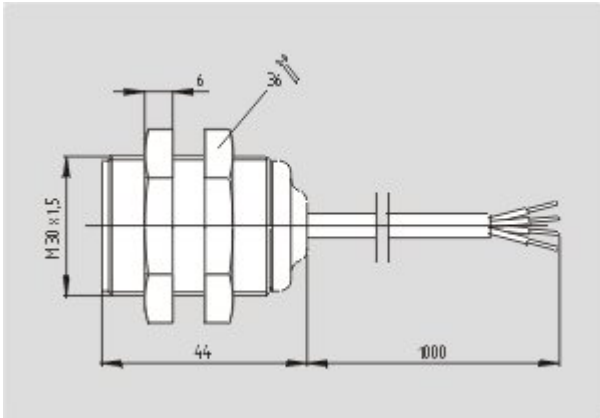
**Brochure (de)** 7 MB, 25.02.2011  
Code: b\_atep01

**Brochure (en)** 8 MB, 28.08.2012  
Code: b\_atep02

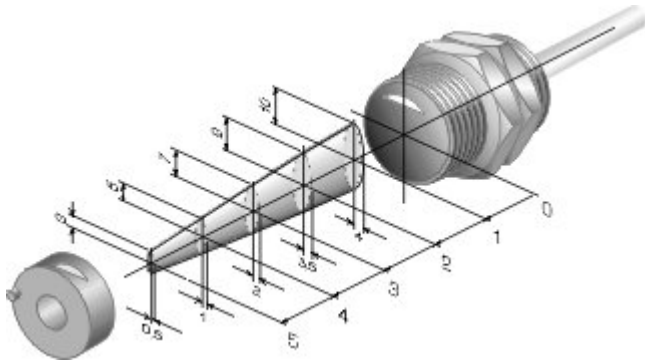
**Brochure (it)** 3 MB, 20.07.2007  
Code: b\_atep05

**Brochure (es)** 5 MB, 18.08.2009  
Code: b\_atep09

## Images



Dimensional drawing (basic component)



Characteristic curve

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

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