

Datasheet - EX-BNS 303-12z-2187-3G/D 5,0M

Safety sensors / EX-BNS 303



- Ex certified
- Thermoplastic enclosure
- Long life
- Ø M30
- no mechanical wear
- Suitable for food processing industry only in combination with BPS 303 SS
- 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 5,0M
Article number	101187774
EAN Code	4030661338477
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 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	Plastic, glass-fibre reinforced thermoplastic
- Material of the nuts	thermoplastic
- Material of the cable mantle	PVC
Housing construction form	cylinder, thread
Weight	226
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

Design of electrical connection	Cable
Cable length	5
Conductors	6 x 0,25
AWG-Number	23
mechanical installation conditions	quasi-flush
Active area	front side
Ensured switch distance ON S_{ao}	5 mm
Ensured switch distance OFF S_{ar}	15 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. 4 Nm
Tightening torque for nuts	A/F 36 max. 300 Ncm

Ambient conditions

Ambient temperature	
- Min. environmental temperature	-25
- Max. environmental temperature	+70
Storage and transport temperature	
- Min. Storage and transport temperature	-25
- 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	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 contacts
Number of shutters	1

Number of openers	2
Design of output signal switching device	

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	
- Length of sensor	44
- Diameter of sensor	M30

notice

Contact symbols shown for the closed condition of the guard device.
The contact configuration for versions with or without LED is identical.

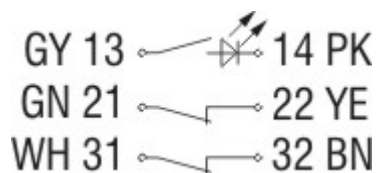
Included in delivery

Actuators must be ordered separately.	
Mounting accessories	2 Nuts M 30 x 1,5

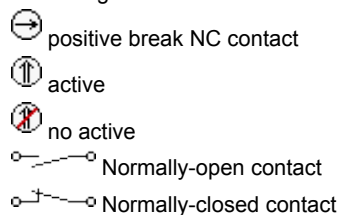
Keywords

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



Note Diagram



Documents

Operating instructions and Declaration of conformity (fr) 636 kB, 13.10.2017

Code: mrl_ex-bns303-2187_fr

Operating instructions and Declaration of conformity (pl) 672 kB, 16.01.2018

Code: mrl_ex-bns303-2187_pl

Operating instructions and Declaration of conformity (pt) 637 kB, 10.10.2017

Code: mrl_ex-bns303-2187_pt

Operating instructions and Declaration of conformity (it) 630 kB, 10.10.2017

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) 634 kB, 27.09.2017

Code: mrl_ex-bns303-2187_en

Operating instructions and Declaration of conformity (de) 630 kB, 27.09.2017

Code: mrl_ex-bns303-2187_de

Operating instructions and Declaration of conformity (nl) 683 kB, 05.07.2018

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) 615 kB, 28.09.2017

Code: mrl_ex-bns303-2187_es

Brochure (de) 7 MB, 19.10.2016

Code: b_atep01_de

Brochure (en) 7 MB, 19.10.2016

Code: b_atep01_en

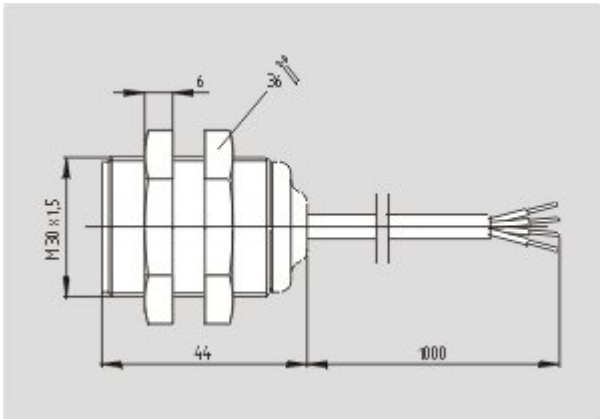
Brochure (it) 3 MB, 20.07.2007

Code: b_atep05

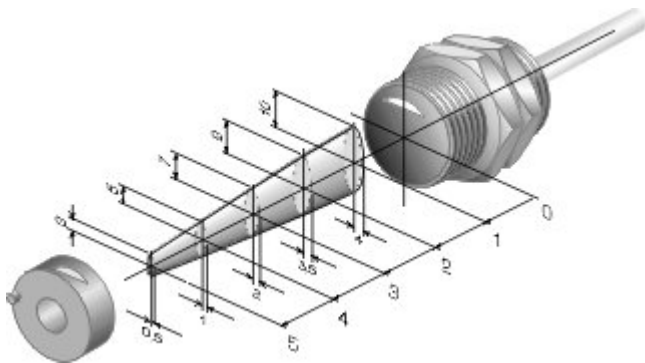
Brochure (es) 5 MB, 18.08.2009

Code: b_atep09

Images



Dimensional drawing (basic component)



Characteristic curve

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

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