

Datasheet - EX-BNS 120-02Z-3G/D

Safety sensors / EX-BNS 120



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

- Ex certified
- thermoplastic enclosure
- Suitable for food processing industry
- Ø M12
- Particularly large switching distance
- Long life
- no mechanical wear
- Insensitive to transverse misalignment
- Insensitive to soiling

Ordering details

Product type description	EX-BNS 120-02Z-3G/D
Article number	EX BNS 120-02z-3G/D
EAN code	

Approval

Approval



EX

Classification

Standards	EN ISO 13849-1
B10d Opener (NC)	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

Product name	EX-BNS 120
Standards	Ex nC IIC T6 X, Ex tD A22 IP67 T80° C X, IEC 60947-5-3, EN 61241-1, EN 60079-15, BG-GS-ET-14

Compliance with the Directives (Y/N) 

Yes

Materials

- Material of the housings
- Material of the cable mantle

Plastic, glass-fibre reinforced thermoplastic

PVC

Housing construction form

cylinder, thread

Weight

Coding available (Y/N)

No

Monitoring function of downstream devices (Y/N)

No

Prerequisite evaluation unit

Recommended safety-monitoring module

Recommended actuator

BP 6, BP 8, BP 10, BP 15 SS

Mechanical data

Design of electrical connection

Cable

Cable length

1 m

Conductors

4 x 0,25 mm²

AWG-Number

23

mechanical installation conditions

quasi-flush

Active area

front side

Ensured switch distance ON S_{ao}

10 mm / 20 mm

- Actuating magnet BP 15 SS

20 mm

- Actuating magnet BP 6

10 mm

- Actuating magnet BP 8

10 mm

- Actuating magnet BP 10

20 mm

Ensured switch distance OFF S_{ar}

22 mm / 32 mm

- Actuating magnet BP 15 SS

32 mm

- BP 6 = 22 mm Actuating magnet

- Actuating magnet BP 8

22 mm

- Actuating magnet BP 10

32 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. 2 Nm

Ambient conditions

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

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. 250 mA

Switching capacity max. 3 W

Outputs

Design of control output	
Number of shutters	0 piece
Number of openers	2 piece
Design of output signal switching device	

Electrical data - Safety outputs

Number of secure semi-conductor outputs	0 piece
Number of secure outputs with contact	2 piece

Electrical data - Diagnostic output

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

LED switching conditions display (Y/N)	No
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ATEX

Explosion protection categories for gases	ATEX gas ex-protection, Cat. 3
Explosion protection Zones for gases	2
Explosion protected category for dusts	ATEX dust ex-protection, Cat. 3
Explosion protection Zones for dusts	22

Dimensions

Dimensions of the sensor	
- Length of sensor	38.5 mm
- Diameter of sensor	M12

notice

Contact symbols shown for the closed condition of the guard device.

The safety sensor must be mounted in such a way that actuation with another magnet is impossible (concealed mounting according to EN 1088)

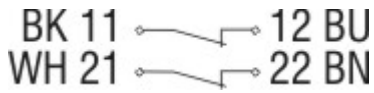
Included in delivery

Actuators must be ordered separately.






Keywords

Keywords	Ex, EEx, ATEX, Ex BNS120, Ex BNS 120, BNS120 Ex, BNS120ex, BNS 120 ex, ATEX BNS 120
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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 (fr) 824 kB, 16.03.2010

Code: mrl_ex-bns120_fr

Operating instructions and Declaration of conformity (es) 817 kB, 14.07.2010

Code: mrl_ex-bns120_es

Operating instructions and Declaration of conformity (jp) 1 MB, 27.07.2011

Code: mrl_ex-bns120_jp

Operating instructions and Declaration of conformity (it) 1 MB, 28.09.2011

Code: mrl_ex-bns120_it

Operating instructions and Declaration of conformity (nl) 1 MB, 03.11.2010

Code: mrl_ex-bns120_nl

Operating instructions and Declaration of conformity (de) 890 kB, 14.07.2010

Code: mrl_ex-bns120_de

Operating instructions and Declaration of conformity (en) 975 kB, 15.02.2010

Code: mrl_ex-bns120_en

Brochure (it) 3 MB, 20.07.2007

Code: b_atep05

Brochure (de) 7 MB, 25.02.2011

Code: b_atep01

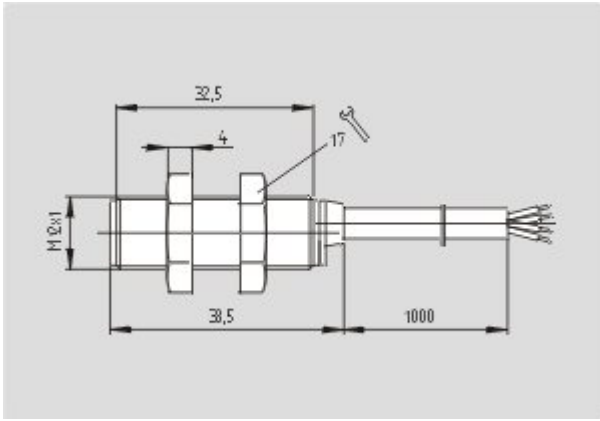
Brochure (es) 5 MB, 18.08.2009

Code: b_atep09

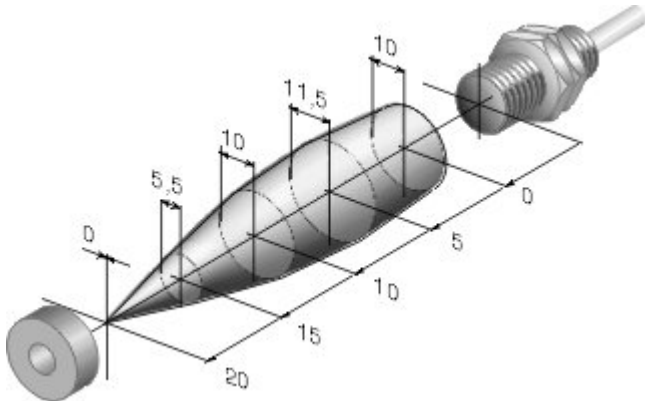
Brochure (en) 8 MB, 28.08.2012

Code: b_atep02

Images



Dimensional drawing (basic component)



Characteristic curve

K.A. Schmersal GmbH & Co. KG, Möddinghofe 30, D-42279 Wuppertal

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

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Image

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