

Datasheet - BNS 30-01zG-2230

Safety sensors / BNS 30



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

- Metal enclosure
- Long life
- no mechanical wear
- Ø M30
- Suitable for food processing industry
- Insensitive to transverse misalignment
- Insensitive to soiling
- With integral evaluation
- supplementary signalling output

Ordering details

Product type description	BNS 30-01ZG-2230
Article number	BNS 30-01zG-2230
EAN code	

Approval

Approval




BG

Classification

Standards	EN ISO 13849-1
B _{10d} Opener (NC)	20.000.000
- notice	at max. 20% contact load
Mission time	20 Years
notice	$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{ap} \times h_{op} \times 3600 \text{ s/h}}{t_{cycle}}$

Global Properties

Product name	BNS 30
Standards	IEC 60947-5-3, BG-GS-ET-14

Compliance with the Directives (Y/N) 

Yes

Materials

- Material of the housings
- Material of the cable mantle

Brass

PVC

Housing coating

nickel-plated

Coding available (Y/N)

Yes

Monitoring function of downstream devices (Y/N)

No

Prerequisite evaluation unit

Recommended safety-monitoring module

Recommended actuator

BPS 300 , BPS 303 , BPS 303 SS

Mechanical data

Design of electrical connection

Cable

Cable length

1 m

Conductors

4 x 0,75 mm²

AWG-Number

18

mechanical installation conditions

quasi-flush

Active area

Ensured switch distance ON

5 mm

Ensured switch distance OFF

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

Tightening torque for nuts

A/F 36 max. 300 Ncm

Ambient conditions

Ambient temperature

- Min. environmental temperature

-25 °C

- Max. environmental temperature

+55 °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)

Yes

Cross circuit/short circuit recognition possible (Y/N)

No

Voltage type

VDC

Switch frequency

max. 5 Hz

Switching voltage

max. 250 VAC/DC

Switching current

max. 3 A

Switching capacity

max. 750 W

Utilisation category

DC-13: 24 V / 30 mA

Outputs

Design of control output

Number of shutters

0 piece

Number of openers

1 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	1 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	1 piece

LED switching conditions display

LED switching conditions display (Y/N)	Yes
- The LED is illuminated when the guard is closed.	

ATEX

Explosion protection categories for gases	None
Explosion protected category for dusts	None

Dimensions

Dimensions of the sensor	
- Length of sensor	78 mm
- Diameter of sensor	M30

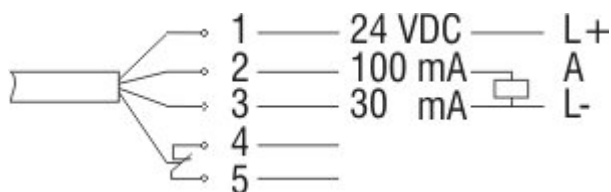
notice

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






Included in delivery

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

Diagram



Note Diagram

-  positive break NC contact
-  active
-  no active
-  Normally-open contact
-  Normally-closed contact

Ordering suffix

The applicable ordering suffix is added at the end of the part number of the safety switch.
Order example: BNS 30-01zG-2230-**2211**

...- 2211	higher switching distance
	Sar: 8 mm
	Sao: 18 mm

Ordering code

BNS 30-01Z(1)-(2)-(3)

(1)

without

G

without LED switching conditions display

with LED switching conditions display (*at Versions with cable*)

(2)

without

ST

with cable

Connector M12

(3)

2211

higher switching distance

2334

higher switching distance and supplementary signalling output

2246

U_e 42 VAC

Documents

Operating instructions and Declaration of conformity (es) 548 kB, 24.02.2011

Code: mrl_bns30_es

Operating instructions and Declaration of conformity (pl) 429 kB, 27.03.2012

Code: mrl_bns30_pl

Operating instructions and Declaration of conformity (de) 906 kB, 13.08.2010

Code: mrl_bns30_de

Operating instructions and Declaration of conformity (nl) 551 kB, 24.02.2011

Code: mrl_bns30_nl

Operating instructions and Declaration of conformity (fr) 858 kB, 14.12.2010

Code: mrl_bns30_fr

Operating instructions and Declaration of conformity (da) 419 kB, 27.08.2012

Code: mrl_bns30_da

Operating instructions and Declaration of conformity (en) 978 kB, 09.09.2010

Code: mrl_bns30_en

Operating instructions and Declaration of conformity (pt) 465 kB, 05.07.2012

Code: mrl_bns30_pt

Operating instructions and Declaration of conformity (it) 548 kB, 24.02.2011

Code: mrl_bns30_it

Operating instructions and Declaration of conformity (jp) 1 MB, 14.12.2010

Code: mrl_bns30_jp

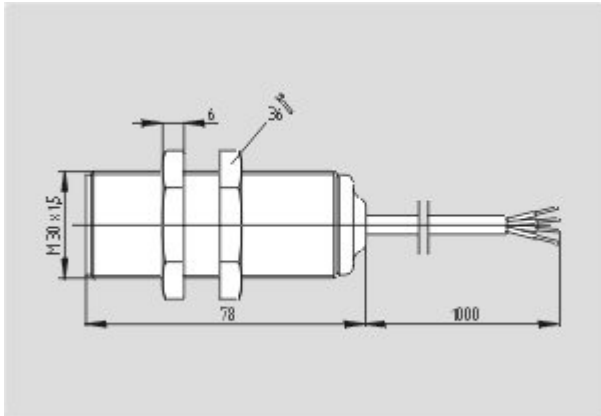
BG-test certificate (en) 559 kB, 05.01.2011

Code: z_b30p02

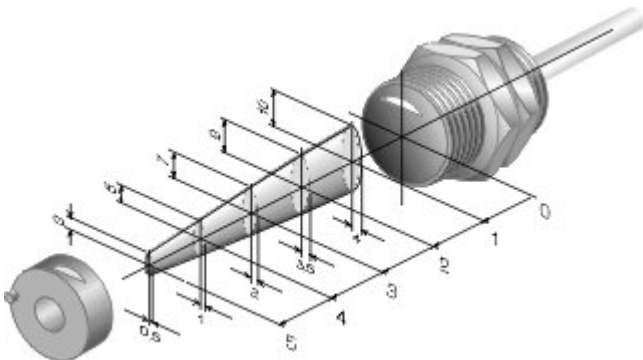
BG-test certificate (de) 571 kB, 05.01.2011

Code: z_b30p01

Images



Dimensional drawing (basic component)



Characteristic curve

System components

Actuator

101113734 - BPS 300



101117076 - BPS 303

- Suitable for food processing industry



101141156 - BPS 303 SS

- Suitable for food processing industry



Mounting accessories



101068520 - MOUNTING CLAMP H 30

- For a smooth fitting of the proximity switches with cylindric shape Ø 30 mm or thread M30

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

Generiert am 22.08.2014 - 04:45:14h Kasbase 2.2.18.F DBI

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