

## 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
- Suitable for food processing industry only in combination with BPS 303 SS
- no mechanical wear
- Ø M30
- 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	
eCl@ss	27-27-24-02

### Approval

Approval




BG

### Classification

Standards	EN ISO 13849-1
B10d Normally-closed contact (NC)	20.000.000
- notice	at max. 20% contact load
Mission time	20 Years
notice	$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{op} \times h_{cp} \times 3600 \text{ s/h}}{t_{cycle}}$

### Global Properties

Permanent light	BNS 30
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Standards	IEC 60947-5-3, BG-GS-ET-14
Compliance with the Directives (Y/N) 	Yes
Materials	
- Material of the housings	Brass
- Material of the cable mantle	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

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Design of electrical connection	Cable
Cable length	1
Conductors	4 x 0,75
AWG-Number	18
mechanical installation conditions	quasi-flush
Active area	
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
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	+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

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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 V
Switching current	max. 3 A
Switching capacity	max. 750 W
Utilisation category	DC-13: 24 V / 30 mA

## Outputs

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Design of control output	
Number of shutters	0
Number of openers	1

### Electrical data - Safety outputs

Number of secure semi-conductor outputs	0
Number of secure outputs with contact	1

### Electrical data - Diagnostic output

Number of semi-conductor outputs with signaling function	0
Number of outputs with signaling function that already have a contact	1

### 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

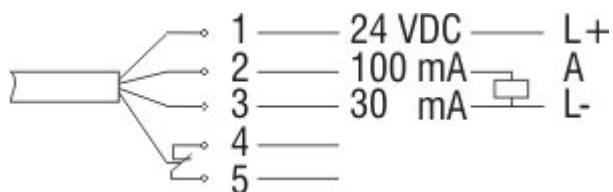
### notice

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

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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

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## Ordering code

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

(1)

without

without LED switching conditions display

G

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

(2)

without

with cable

ST

Connector M12

(3)

2211

higher switching distance

2334

higher switching distance and supplementary signalling output

2246

U<sub>e</sub> 42 VAC

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## Documents

**Operating instructions and Declaration of conformity** (es) 423 kB, 18.05.2016

Code: mrl\_bns30\_es

**Operating instructions and Declaration of conformity** (pl) 437 kB, 18.05.2016

Code: mrl\_bns30\_pl

**Operating instructions and Declaration of conformity** (de) 426 kB, 26.04.2016

Code: mrl\_bns30\_de

**Operating instructions and Declaration of conformity** (nl) 455 kB, 30.07.2018

Code: mrl\_bns30\_nl

**Operating instructions and Declaration of conformity** (fr) 425 kB, 29.04.2016

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) 422 kB, 26.04.2016

Code: mrl\_bns30\_en

**Operating instructions and Declaration of conformity** (pt) 424 kB, 08.05.2017

Code: mrl\_bns30\_pt

**Operating instructions and Declaration of conformity** (it) 421 kB, 24.06.2016

Code: mrl\_bns30\_it

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

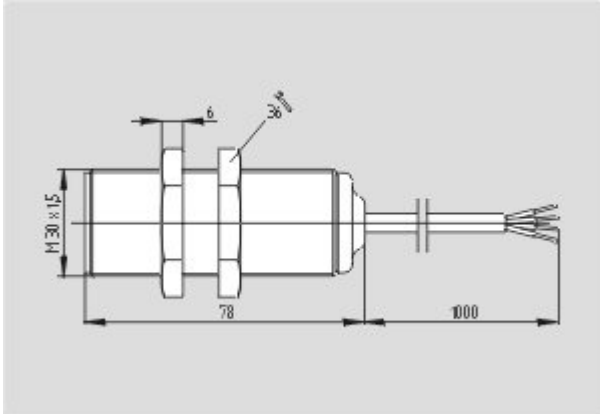
Code: mrl\_bns30\_jp

**BG-test certificate** (en) 559 kB, 05.01.2011

Code: z\_b30p02

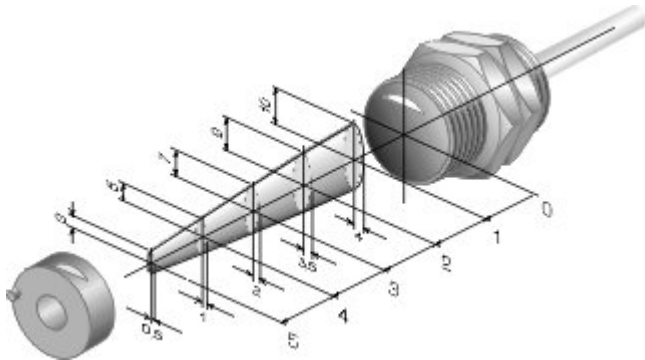
## Images

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Dimensional drawing (basic component)

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Characteristic curve

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## System components

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### Actuator

101113734 - BPS 300



101117076 - BPS 303

• Suitable for food processing industry



101141156 - BPS 303 SS

• Suitable for food processing industry

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### Mounting accessories



#### 101068520 - MOUNTING CLAMP H 30

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

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

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