

## Datasheet - BNS 303-11ZG 3,0M

Safety sensors / BNS 303

 Preferred typ

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

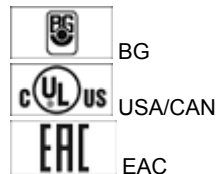
- LED version
- Thermoplastic enclosure
- Long life
- Suitable for food processing industry only in combination with BPS 303 SS
- no mechanical wear
- Ø M30
- Insensitive to transverse misalignment
- Insensitive to soiling

### Ordering details

Product type description	BNS 303-11ZG 3,0M
Article number	101139171
EAN Code	4030661282053
eCl@ss	27-27-24-02

### Approval

Approval




### Classification

Standards	EN ISO 13849-1
B10d Normally-closed contact/Normally open contact (NC/NO) - notice	25.000.000 at max. 20% contact load
Mission time notice	20 Years $MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{cycle}}$

## Global Properties

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Permanent light	BNS 303
Standards	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
Weight	130
Coding available (Y/N)	Yes
Monitoring function of downstream devices (Y/N)	No
Prerequisite evaluation unit	
Recommended safety-monitoring module	AES, SRB202C., SRB400C., SRB211AN, SRB207AN
Recommended actuator	BPS 300 , BPS 303 , BPS 303 SS

## Mechanical data

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Design of electrical connection	Cable
Cable length	3
Conductors	4 x 0,25
AWG-Number	23
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
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

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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	VDC
Switch frequency	max. 5 HZ
Switching voltage	max. 24 VDC
Switching current	max. 10 mA
Switching capacity	max. 240 mW

## Outputs

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Design of control output	Other, Reed kontakts
Number of shutters	1
Number of openers	1
Design of output signal switching device	

## Electrical data - Safety outputs

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

## Electrical data - Diagnostic output

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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

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

## ATEX

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

## 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 - Nuts M 30 x 1,5	2 piece



## Diagram

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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 303-11ZG 3,0M-**2211**

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

## Ordering code

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BNS 303-(1)Z(2)-(3)-(4)

<b>(1)</b>	
<b>11</b>	1 Normally open contact (NO) / 1 Opener (NC)
<b>12</b>	1 Normally open contact (NO) / 2 Opener (NC)
<b>02</b>	- / 2 Opener (NC)
<b>03</b>	- / 3 Opener (NC)
<b>(2)</b>	
<i>without</i>	without LED switching conditions display
<b>G</b>	with LED switching conditions display
<b>(3)</b>	
<i>without</i>	with cable
<b>ST</b>	with connector M12
<b>(4)</b>	
<b>2187</b>	Individual contact outlet
<b>2211</b>	higher switching distance

## Documents

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**Operating instructions and Declaration of conformity** (it) 445 kB, 03.01.2018

Code: mrl\_bns303\_it

**Operating instructions and Declaration of conformity** (nl) 447 kB, 03.01.2018

Code: mrl\_bns303\_nl

**Operating instructions and Declaration of conformity** (pt) 450 kB, 03.01.2018

Code: mrl\_bns303\_pt

**Operating instructions and Declaration of conformity** (jp) 551 kB, 03.01.2018

Code: mrl\_bns303\_jp

**Operating instructions and Declaration of conformity** (fr) 451 kB, 03.01.2018

Code: mrl\_bns303\_fr

**Operating instructions and Declaration of conformity** (es) 448 kB, 03.01.2018

Code: mrl\_bns303\_es

**Operating instructions and Declaration of conformity** (de) 413 kB, 15.12.2017

Code: mrl\_bns303\_de

**Operating instructions and Declaration of conformity** (en) 449 kB, 15.12.2017

Code: mrl\_bns303\_en

**Operating instructions and Declaration of conformity** (pl) 480 kB, 03.01.2018

Code: mrl\_bns303\_pl

**Operating instructions and Declaration of conformity** (da) 447 kB, 03.01.2018

Code: mrl\_bns303\_da

**Operating instructions and Declaration of conformity** (cs) 481 kB, 02.01.2018

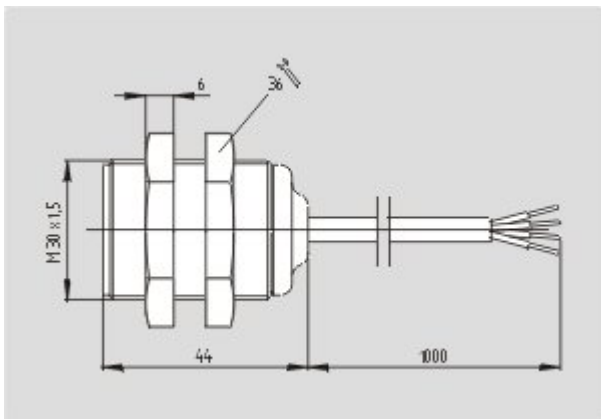
Code: mrl\_bns303\_cs

**EAC certification** (ru) 782 kB, 05.10.2015

Code: q\_6044p17\_ru

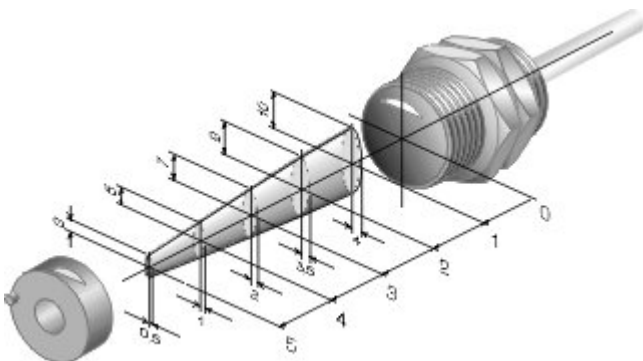
## Images

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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.

Generiert am 13.02.2019 - 14:24:55h Kasbase 3.3.0.F.64l