

## Datasheet - BNS 333-01yD

Safety sensors / BNS 333

 Preferred typ

- thermoplastic enclosure
- Long life
- no mechanical wear
- 40 mm x 112 mm x 40 mm
- Suitable for food processing industry
- Insensitive to transverse misalignment
- Insensitive to soiling
- Wiring compartment
- With integral evaluation
- 1 Cable entry M 20 x 1.5

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

### Ordering details

Product type description	BNS 333-01YD
Article number	101169806
EAN code	4030661296517

### Approval

Approval



BG

### Classification

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

### Global Properties

Product name	BNS 333
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
Weight	150 g
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	Screw connection
Cable section	
- Min. Cable section	2 x 0,75 mm <sup>2</sup>
- Max. Cable section	2 x 1.5 mm <sup>2</sup>
AWG-Number	15
mechanical installation conditions	quasi-flush
Active area	cover-side
Ensured switch distance ON	4 mm
Ensured switch distance OFF	14 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
notice	All indications about the cable section are including the conductor ferrules.

## 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	IP65

## 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	VAC/DC
Switch frequency	max. 5 Hz
Switching voltage	max. 250 V
Switching current	max. 5 A
Switching capacity	max. 1250 W

## Outputs

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Design of control output	
Number of shutters	0 piece
Number of openers	1 piece
Design of output signal switching device	

## Electrical data - Safety outputs

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

## Electrical data - Diagnostic output

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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

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LED switching conditions display (Y/N) - The LED is illuminated when the guard is closed.	Yes
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## 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	
- Width of sensor	52 mm
- Height of sensor	90 mm
- Length of sensor	39 mm

## notice

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

## Included in delivery

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Actuators must be ordered separately.

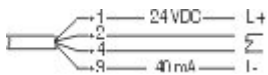
## Indication legend

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

5 different directions of actuation: cover, front and below, right and left

## Diagram

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Note Diagram

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

## Ordering code

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BNS 333-01Y(1)-M20

(1)	
V	Actuating planes front side
R	Actuating planes right-hand side
L	Actuating planes left-hand side
D	Actuating planes cover-side
U	Actuating planes bottom

## Documents

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**Operating instructions and Declaration of conformity** (pt) 327 kB, 05.07.2012

Code: mrl\_bns333\_pt

**Operating instructions and Declaration of conformity** (it) 696 kB, 02.11.2010

Code: mrl\_bns333\_it

**Operating instructions and Declaration of conformity** (nl) 701 kB, 02.11.2010

Code: mrl\_bns333\_nl

**Operating instructions and Declaration of conformity** (pl) 284 kB, 29.07.2013

Code: mrl\_bns333\_pl

**Operating instructions and Declaration of conformity** (de) 853 kB, 13.08.2010

Code: mrl\_bns333\_de

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

Code: mrl\_bns333\_jp

**Operating instructions and Declaration of conformity** (en) 774 kB, 07.09.2010

Code: mrl\_bns333\_en

**Operating instructions and Declaration of conformity** (fr) 714 kB, 02.11.2010

Code: mrl\_bns333\_fr

**Operating instructions and Declaration of conformity** (es) 904 kB, 02.11.2010

Code: mrl\_bns333\_es

**Operating instructions and Declaration of conformity** (da) 290 kB, 23.08.2012

Code: mrl\_bns333\_da

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

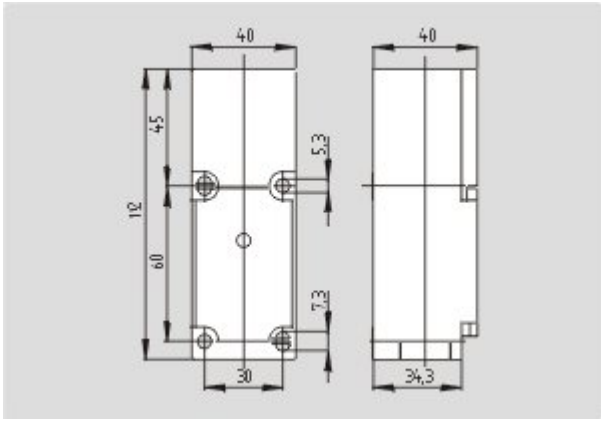
Code: z\_b30p02

**BG-test certificate** (de) 571 kB, 05.01.2011

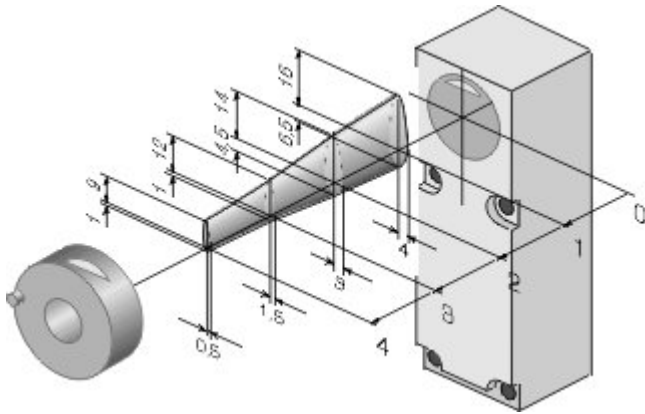
Code: z\_b30p01

## Images

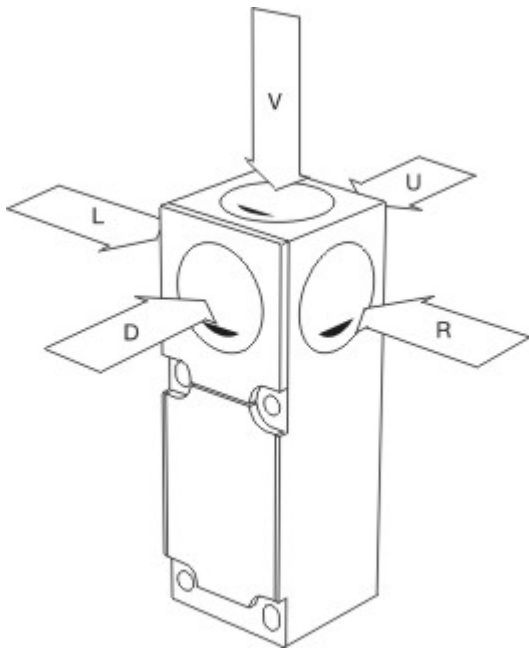
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Dimensional drawing (basic component)



Characteristic curve



Application

## System components

### Actuator

101113734 - BPS 300



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**101117076 - BPS 303**

- Suitable for food processing industry



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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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