

## Datasheet - BNS 333-01YR

Safety sensors / BNS 333



- Thermoplastic enclosure
- Long life
- Suitable for food processing industry only in combination with BPS 303
- no mechanical wear
- 40 mm x 112 mm x 40 mm
- Insensitive to transverse misalignment
- Insensitive to soiling
- 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 333-01YR
Article number	101169804
EAN Code	4030661296494
eCl@ss	27-27-24-02

### Approval


Approval



### 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	$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{cycle}}$

### Global Properties

Permanent light	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	145
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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• Wiring compartment	
Design of electrical connection	Screw connection
Cable section	
- Min. Cable section	2 x 0,75
- Max. Cable section	2 x 1.5
AWG-Number	15
mechanical installation conditions	quasi-flush
Active area	right-hand side
Ensured switch distance ON $S_{ao}$	4 mm
Ensured switch distance OFF $S_{ar}$	14 mm
notice	All indications about the cable section are including the conductor ferrules.
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

## 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

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	1

### 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 is closed.	

### 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.

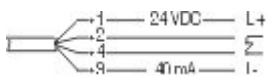
### Indication legend

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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) 325 kB, 15.06.2018

Code: mrl\_bns333\_pt

**Operating instructions and Declaration of conformity** (it) 321 kB, 15.06.2018

Code: mrl\_bns333\_it

**Operating instructions and Declaration of conformity** (nl) 322 kB, 15.06.2018

Code: mrl\_bns333\_nl

**Operating instructions and Declaration of conformity** (pl) 340 kB, 15.06.2018

Code: mrl\_bns333\_pl

**Operating instructions and Declaration of conformity** (de) 300 kB, 15.06.2018

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) 322 kB, 15.06.2018

Code: mrl\_bns333\_en

**Operating instructions and Declaration of conformity** (fr) 324 kB, 15.06.2018

Code: mrl\_bns333\_fr

**Operating instructions and Declaration of conformity** (es) 322 kB, 15.06.2018

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

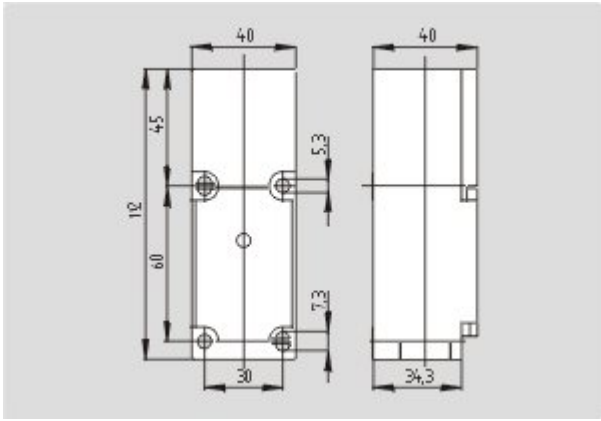
Code: z\_b30p02

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

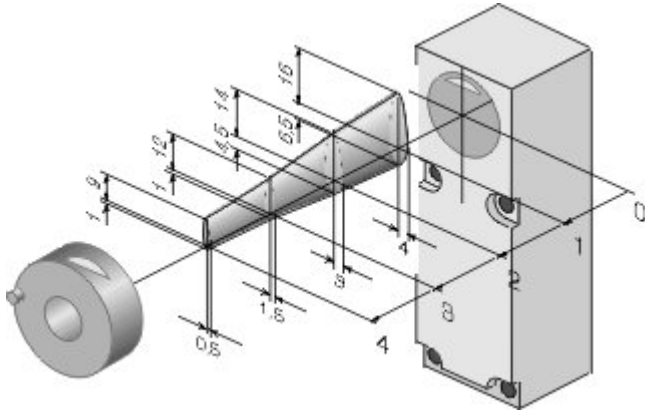
Code: q\_6044p17\_ru

## Images

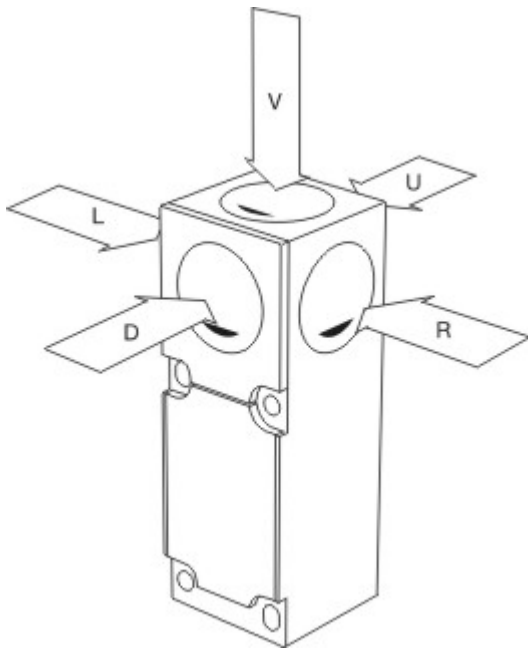
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Dimensional drawing (basic component)



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

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