

Datasheet - BNS 333-01yD

Safety sensors / BNS 333



Preferred typ



- 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 333-01YD
Article number	101169806
EAN Code	4030661296517
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	150
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

• 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	cover-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

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

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

Design of control output	
Number of shutters	0

Number of openers	1
Design of output signal switching device	

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	0

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	
- Width of sensor	52 mm
- Height of sensor	90 mm
- Length of sensor	39 mm

notice

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

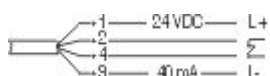
Included in delivery

Actuators must be ordered separately.






Indication legend

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

Diagram



Note Diagram

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

Ordering code

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

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

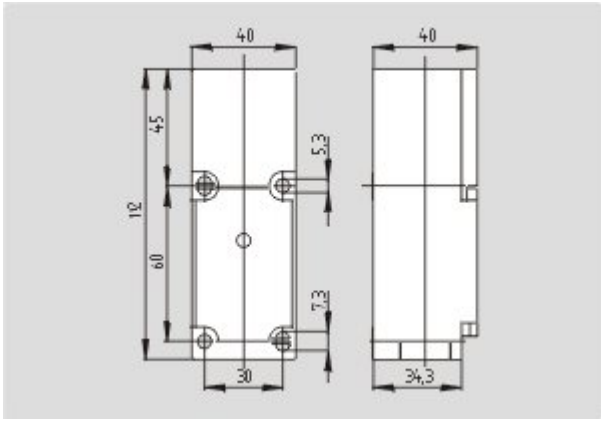
Operating instructions and Declaration of conformity (da) 290 kB, 23.08.2012

Code: mrl_bns333_da

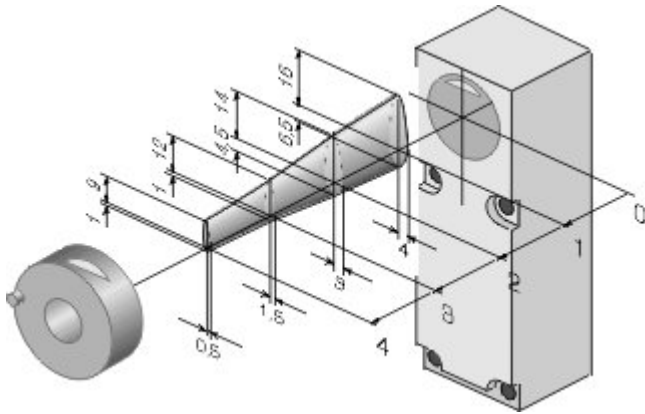
EAC certification (ru) 782 kB, 05.10.2015

Code: q_6044p17_ru

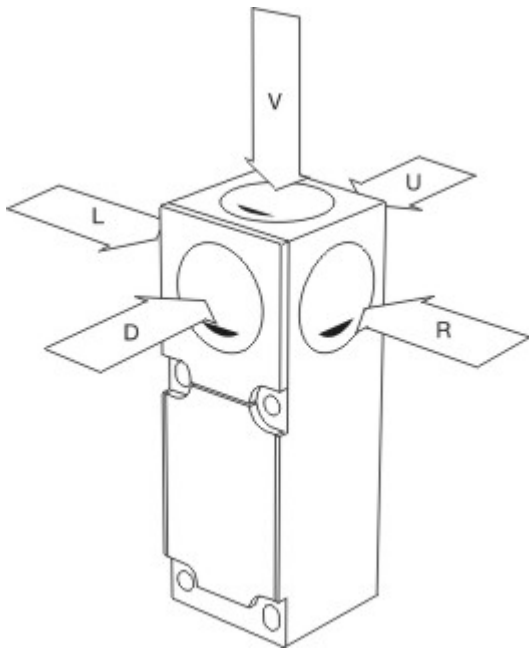
Images



Dimensional drawing (basic component)



Characteristic curve



Application

System components

Actuator

101113734 - BPS 300



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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