

Datasheet - BNS 36-02Z-ST-R

Safety sensors / BNS 36



Preferred typ



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

- Thermoplastic enclosure
- Long life
- no mechanical wear
- 88 mm x 25 mm x 13 mm
- Concealed mounting possible
- Insensitive to transverse misalignment
- Insensitive to soiling
- Connector M8, 4-pole, Latching interlocking

Ordering details

Product type description	BNS 36-02Z-ST-R
Article number	101189905
EAN code	4030661359984
eCl@ss	27-27-24-02

Approval


Approval



Classification

Standards	EN ISO 13849-1
B _{10d} Opener (NC)	25.000.000
- 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 36
Standards	IEC 60947-5-3, BG-GS-ET-14
Compliance with the Directives (Y/N) 	Yes
Category safety pursuant to EN ISO 13849-1	up 4 - Only in combination with safety monitoring module
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic
Weight	30 g
Coding available (Y/N)	Yes

Monitoring function of downstream devices (Y/N)	No
Prerequisite evaluation unit	
Recommended safety-monitoring module	
Recommended actuator	BPS 36-1, BPS 36-2

Mechanical data

Design of electrical connection	Connector M8, 4-pole, Latching interlocking
AWG-Number	
mechanical installation conditions	quasi-flush
Active area	
Ensured switch distance ON S_{ao}	7 mm
Ensured switch distance OFF S_{ar}	17 mm
notice	Axial misalignment The safety sensor and the actuator tolerate a horizontal and vertical misalignment to each other. The possible misalignment depends on the distance of the active surfaces of the sensor and the actuator. The sensor is active in the tolerance range.
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
Door hinge	right

Ambient conditions

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

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. 75 VDC
Switching current	max. 400 mA
Switching capacity	max. 10 W

Outputs

Design of control output	
Number of shutters	0 piece
Number of openers	2 piece
Design of output signal switching device	

Electrical data - Safety outputs

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

Electrical data - Diagnostic output

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

LED switching conditions display (Y/N)	No
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ATEX

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

Dimensions

Dimensions of the sensor	
- Width of sensor	88 mm
- Height of sensor	25 mm
- Length of sensor	13 mm

notice

The number in brackets indicate the PIN number of the connector.
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

Actuators must be ordered separately.

Diagram



Note Diagram

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

Ordering code

BNS 36-(1)(2)Z(3)-(4)-(5)

(1)	
11	1 Normally open contact (NO) / 1 Opener (NC)
02	2 Opener (NC)
(2)	

<i>without</i>	without Diagnostic output
/01	1 Opener (NC)
(3)	
<i>without</i>	without LED switching conditions display
G	with LED switching conditions display
(4)	
<i>without</i>	Pre-wired cable
ST	with connector
(5)	
L	Door hinge on left-hand side
R	Door hinge on right-hand side

Documents

Operating instructions and Declaration of conformity (nl) 281 kB, 03.05.2013

Code: mrl_bns36_nl

Operating instructions and Declaration of conformity (en) 298 kB, 04.03.2016

Code: mrl_bns36_en

Operating instructions and Declaration of conformity (es) 289 kB, 09.03.2016

Code: mrl_bns36_es

Operating instructions and Declaration of conformity (sv) 318 kB, 16.04.2012

Code: mrl_bns36_sv

Operating instructions and Declaration of conformity (pt) 301 kB, 03.06.2016

Code: mrl_bns36_pt

Operating instructions and Declaration of conformity (fr) 299 kB, 03.06.2016

Code: mrl_bns36_fr

Operating instructions and Declaration of conformity (de) 266 kB, 13.12.2012

Code: mrl_bns36_de

Operating instructions and Declaration of conformity (de) 300 kB, 04.03.2016

Code: mrl_bns36_de

Operating instructions and Declaration of conformity (da) 282 kB, 22.08.2013

Code: mrl_bns36_da

Operating instructions and Declaration of conformity (pl) 329 kB, 03.06.2016

Code: mrl_bns36_pl

Operating instructions and Declaration of conformity (it) 295 kB, 03.06.2016

Code: mrl_bns36_it

Operating instructions and Declaration of conformity (cs) 322 kB, 04.06.2012

Code: mrl_bns36_cs

Operating instructions and Declaration of conformity (jp) 385 kB, 31.10.2013

Code: mrl_bns36_jp

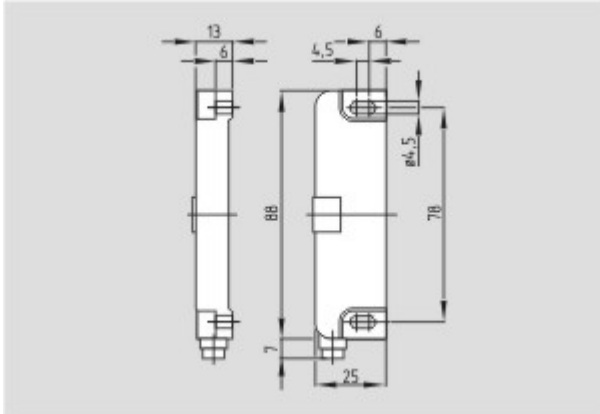
Operating instructions and Declaration of conformity (cn) 381 kB, 02.04.2015

Code: mrl_bns36_cn

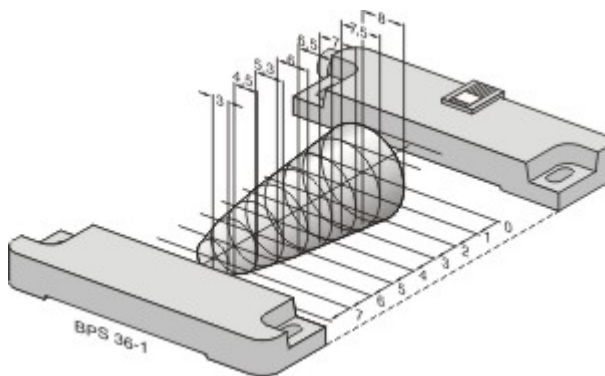
EAC certification (ru) 782 kB, 05.10.2015

Code: q_6044p17_ru

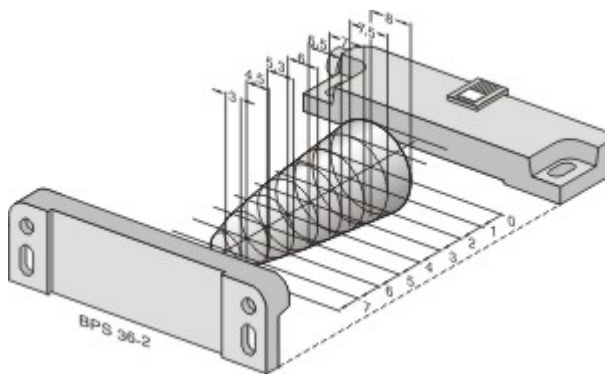
Images



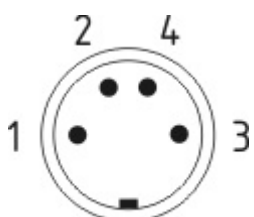
Dimensional drawing (basic component)



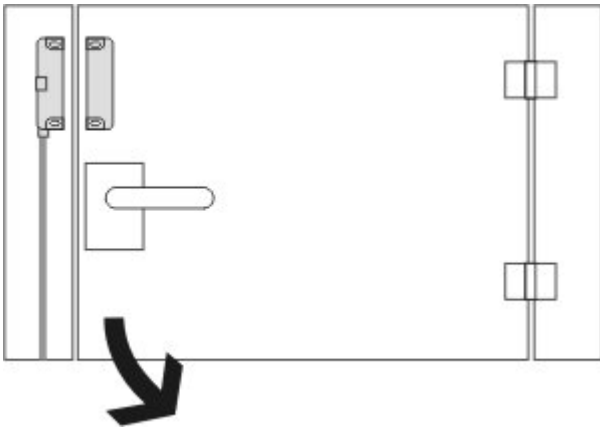
Characteristic curve



Characteristic curve



Contact arrangement



Operating principle

System components

Actuator



101190052 - BPS 36-1

- Actuator and sensor on a mounting level



101191859 - BPS 36-2

- Actuator 90° attached to the sensor

Accessories



101188624 - SPACER BNS 36

- to mount the magnetic safety sensor and actuator on ferromagnetic material

Connector



101194060 - BNS-Y-02

- enables the interconnection and the connection of BNS safety sensors to a common safety monitoring module
- for BNS 33, BNS 36, BNS 260 (with 2 NC)