

Datasheet - BNS-B20-12zG-L

Safety sensors / BNS-B20



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

- Thermoplastic enclosure
- Non-contact safety switch
- Does not protrude into the door opening
- 119,5 mm x 140 mm x 43,3 mm
- Substitutes door-handle and safety switch, no further door fittings required
- Modern and symmetric design
- Tamper-proof because of integral coded safety sensor
- Ergonomic operation
- Suitable for hinged and sliding guards
- No protruding actuator
- Simple mounting with 4 Screws
- Pre-wired cable

Ordering details

| | |
|--------------------------|----------------|
| Product type description | BNS-B20-12ZG-L |
| Article number | 101186266 |
| EAN Code | 4030661333496 |
| eCl@ss | 27-27-24-02 |

Approval

Approval



BG



USA/CAN


Classification

| | |
|--|--------------------------|
| Standards | EN ISO 13849-1 |
| B10d Normally-closed contact/Normally open contact (NC/NO) | 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

| | |
|--|---|
| Permanent light | BNS-B20 |
| 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 cable mantle | PVC |
| Weight | 143 |
| Coding available (Y/N) | Yes |
| Monitoring function of downstream devices (Y/N) | No |
| Prerequisite evaluation unit | |
| Recommended safety-monitoring module | |
| Recommended actuator | BNS-B20-B01 |

Mechanical data

| | |
|--------------------------------------|------------------------------|
| Design of electrical connection | Cable |
| Cable output | bottom |
| Cable length | 1 |
| Conductors | 6 x 0,25 |
| AWG-Number | |
| mechanical installation conditions | quasi-flush |
| Ensured switch distance ON S_{ao} | 0 mm |
| Ensured switch distance OFF S_{ar} | 22 mm |
| Type of actuation | Magnet |
| restistance to shock | 30 g / 11 ms |
| Resistance to vibration | 10 ... 55 HZ, Amplitude 1 mm |
| Latching force | 100 N |
| Door hinge | left |
| Max. door weight | |
| - sliding guard | 3 |
| - hinged guard | 5 |

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 | VAC/DC |
| Switch frequency | max. 5 HZ |
| Switching voltage | max. 100 VAC/DC |
| Switching current | max. 10 mA |
| Switching capacity | max. 240 mW |

Outputs

| | |
|--|---|
| Design of control output | |
| Number of shutters | 1 |
| Number of openers | 2 |
| Design of output signal switching device | |

Electrical data - Safety outputs

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

Electrical data - Diagnostic output

| | |
|---|---|
| Number of semi-conductor outputs with signaling function | 0 |
| Number of outputs with signaling function that already have a contact | 1 |

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 | 119.5 mm |
| - Height of sensor | 140 mm |
| - Length of sensor | 43.3 mm |

notice

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

The contact configuration for versions with or without LED is identical.

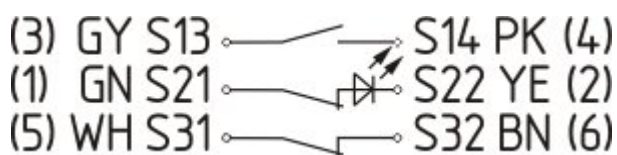
Inductive loads (e.g. contactors, relays, etc.) are to be suppressed by means of a suitable circuit.

Contact S21-S22 must be integrated in the safety circuit

Included in delivery

Actuators must be ordered separately.

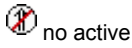
Diagram



Note Diagram

⊖ positive break NC contact

⊕ active



- Normally-open contact
- Normally-closed contact

Ordering code

BNS-B20-(1)Z(2)-(3)-(4)

(1)

12 1 Normally open contact (NO) / 2 Opener (NC)
02 2 Opener (NC)

(2)

without without LED switching conditions display
G with LED switching conditions display

(3)

without with Pre-wired cable bottom
H with Pre-wired cable rear
ST with Connector M12 bottom

(4)

L Door hinge on left-hand side (*Only for Pre-wired cable bottom or Plug-in connection*)
R Door hinge on right-hand side (*Only for Pre-wired cable bottom or Plug-in connection*)

Documents

Operating instructions and Declaration of conformity (pt) 524 kB, 16.10.2017

Code: mrl_bns-b20_pt

Operating instructions and Declaration of conformity (es) 485 kB, 28.09.2017

Code: mrl_bns-b20_es

Operating instructions and Declaration of conformity (it) 499 kB, 16.10.2017

Code: mrl_bns-b20_it

Operating instructions and Declaration of conformity (en) 484 kB, 14.09.2017

Code: mrl_bns-b20_en

Operating instructions and Declaration of conformity (pl) 554 kB, 01.03.2018

Code: mrl_bns-b20_pl

Operating instructions and Declaration of conformity (de) 488 kB, 14.09.2017

Code: mrl_bns-b20_de

Operating instructions and Declaration of conformity (jp) 663 kB, 10.11.2011

Code: mrl_bns-b20_jp

Operating instructions and Declaration of conformity (fr) 485 kB, 25.09.2017

Code: mrl_bns-b20_fr

Operating instructions and Declaration of conformity (nl) 517 kB, 28.06.2018

Code: mrl_bns-b20_nl

Operating instructions and Declaration of conformity (da) 513 kB, 23.08.2012

Code: mrl_bns-b20_da

BG-test certificate (en) 643 kB, 27.02.2007

Code: z_bnbp02

BG-test certificate (de) 648 kB, 27.02.2007

Code: z_bnbp01

Brochure (fr) 337 kB, 03.05.2005

Code: b_b20p03

Brochure (en) 290 kB, 03.05.2005

Code: b_b20p02

Brochure (de) 296 kB, 03.05.2005

Code: b_b20p01

Brochure (it) 297 kB, 03.05.2005

Code: b_b20p05

EAC certification (ru) 782 kB, 05.10.2015

Code: q_6044p17_ru

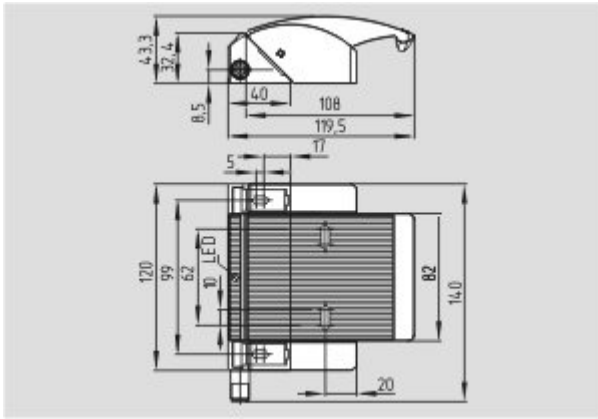
notice (de, en) 60 kB, 21.03.2006

Code: s_b20p01

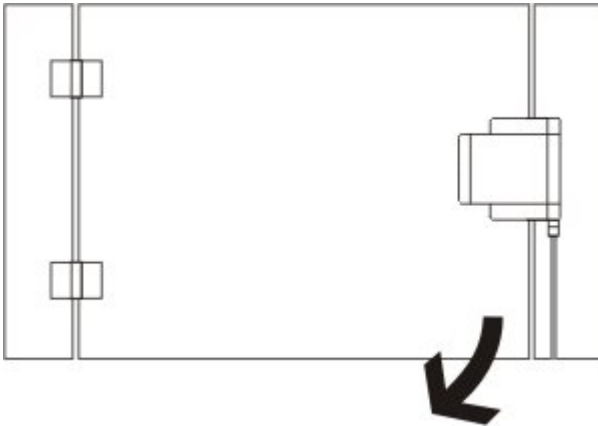
Images



Product photo



Dimensional drawing (basic component)



Clipart

System components

Actuator



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