

## Datasheet - BNS 36-02/01ZG-R

Safety sensors / BNS 36



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

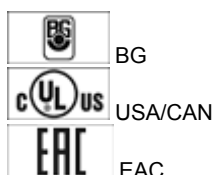
- Thermoplastic enclosure
- Long life
- no mechanical wear
- 88 mm x 25 mm x 13 mm
- Concealed mounting possible
- Insensitive to transverse misalignment
- Insensitive to soiling

### Ordering details

|                          |                  |
|--------------------------|------------------|
| Product type description | BNS 36-02/01ZG-R |
| Article number           | 101193234        |
| EAN Code                 | 4030661360003    |
| eCl@ss                   | 27-27-24-02      |

### Approval

Approval



### Classification

|                                   |  |
|-----------------------------------|--|
| Standards                         | EN ISO 13849-1   |
| B10d Normally-closed contact (NC) | 25.000.000   |
| - notice                          | at max. 20% contact load   |
| Mission time                      | 20 Years   |
| notice                            | $MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{op} \times h_{cp} \times 3600 \text{ s/h}}{t_{cycle}}$ |

### Global Properties

|  |  |
|--|--|
| Permanent light                            | 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            |
| - Material of the cable mantle             | PVC  |
| Weight                                     |  |
| 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

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|                                      |  |
|--------------------------------------|--|
| Design of electrical connection      | Cable  |
| Cable length                         | 1  |
| Conductors                           | 6 x 0,25   |
| AWG-Number                           | 30   |
| mechanical installation conditions   | quasi-flush  |
| Active area                          |  |
| Ensured switch distance ON $S_{ao}$  | 7 mm   |
| Ensured switch distance OFF $S_{ar}$ | 17 mm  |
| notice                               | <b>Axial misalignment</b><br>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  |
| resistance to shock                  | 30 g / 11 ms   |
| Resistance to vibration              | 10 ... 55 HZ, Amplitude 1 mm   |
| Door hinge                           | right  |

## Ambient conditions

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|  |        |
|--|--------|
| 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

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|  |             |
|--|-------------|
| 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. 24 VDC |
| Switching current                                      | max. 10 mA  |
| Switching capacity                                     | max. 240 mW |

## Outputs

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|  |   |
|--|---|
| Design of control output                 |   |
| Number of shutters                       | 0 |
| Number of openers                        | 3 |
| 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   | 2 |

### 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 | 1 |

### 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        | 88 mm |
| - Height of sensor       | 25 mm |
| - Length of sensor       | 13 mm |

### notice

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Contact symbols shown for the closed condition of the guard device.  
The contact configuration for versions with or without LED is identical.

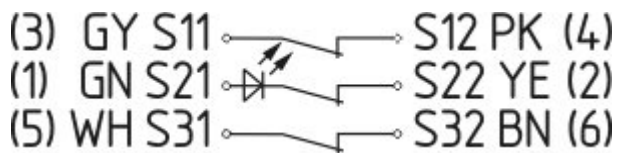
### Included in delivery

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Actuators must be ordered separately.

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

(1)

11

1 Normally open contact (NO) / 1 Opener (NC)

|                |  |  |
|----------------|--|--|
| <b>02</b>      |  | 2 Opener (NC)                            |
| <b>(2)</b>     |  |  |
| <i>without</i> |  | without Diagnostic output                |
| <b>I01</b>     |  | 1 Opener (NC)                            |
| <b>(3)</b>     |  |  |
| <i>without</i> |  | without LED switching conditions display |
| <b>G</b>       |  | with LED switching conditions display    |
| <b>(4)</b>     |  |  |
| <i>without</i> |  | Pre-wired cable                          |
| <b>ST</b>      |  | with connector                           |
| <b>(5)</b>     |  |  |
| <b>L</b>       |  | Door hinge on left-hand side             |
| <b>R</b>       |  | Door hinge on right-hand side            |

## Documents

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**Operating instructions and Declaration of conformity (nl)** 324 kB, 24.09.2018

Code: mrl\_bns36\_nl

**Operating instructions and Declaration of conformity (en)** 296 kB, 24.09.2018

Code: mrl\_bns36\_en

**Operating instructions and Declaration of conformity (es)** 294 kB, 24.09.2018

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)** 297 kB, 24.09.2018

Code: mrl\_bns36\_pt

**Operating instructions and Declaration of conformity (fr)** 295 kB, 24.09.2018

Code: mrl\_bns36\_fr

**Operating instructions and Declaration of conformity (de)** 290 kB, 24.09.2018

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)** 331 kB, 24.09.2018

Code: mrl\_bns36\_pl

**Operating instructions and Declaration of conformity (it)** 287 kB, 24.09.2018

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)** 555 kB, 24.09.2018

Code: mrl\_bns36\_jp

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

Code: mrl\_bns36\_cn

Operating instructions and Declaration of conformity (br) 289 kB, 18.12.2018

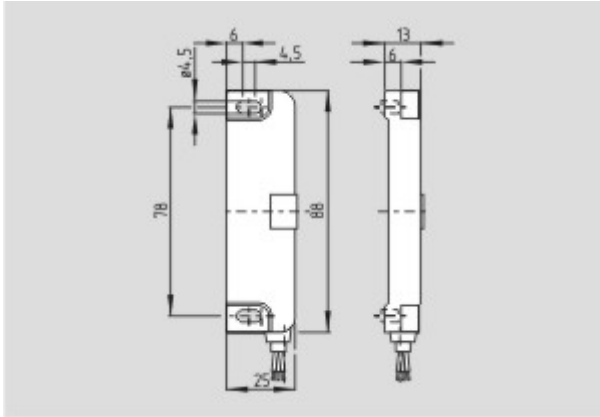
Code: mrl\_bns36\_br

EAC certification (ru) 782 kB, 05.10.2015

Code: q\_6044p17\_ru

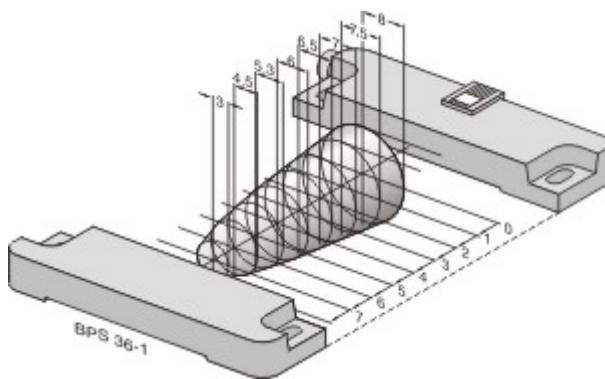
## Images

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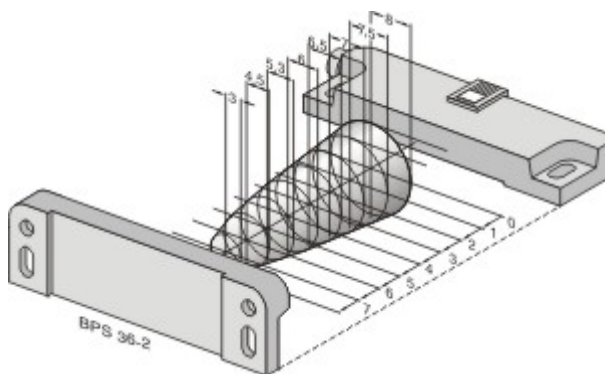
Dimensional drawing (basic component)

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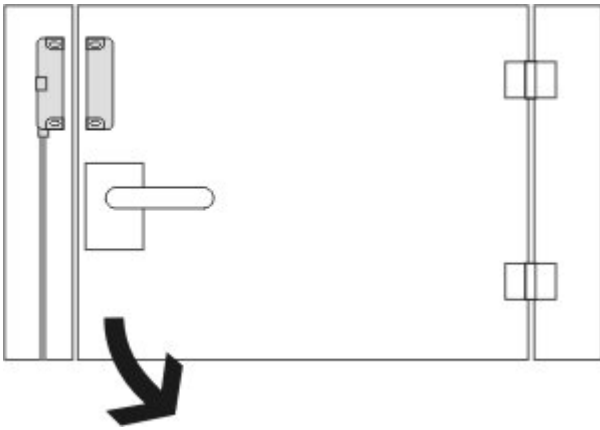
Characteristic curve

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Characteristic curve

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Operating principle

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## System components

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### Actuator



#### 101190052 - BPS 36-1

- Actuator and sensor on a mounting level
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#### 101191859 - BPS 36-2

- Actuator 90 ° attached to the sensor
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### Accessories



#### 101188624 - SPACER BNS 36

- to mount the magnetic safety sensor and actuator on ferromagnetic material
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K.A. Schmersal GmbH & Co. KG, Mödinghofe 30, D-42279 Wuppertal

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

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