



## BNS-B20-12Z-ST-R

- Connector M12 x 1, 8-pole
- 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

## Data

### Ordering data

Product type description	BNS-B20-12Z-ST-R
Article number (order number)	101186260
EAN (European Article Number)	4030661326801
eCl@ss number, version 12.0	27-27-44-01
eCl@ss number, version 11.0	27-27-24-02
eCl@ss number, version 9.0	27-27-24-02
ETIM number, version 7.0	EC002544
ETIM number, version 6.0	EC002544

### Approvals - Standards

Certificates	cULus
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## General data

Standards	BG-GS-ET-14 EN IEC 60947-5-3
Coding level according to EN ISO 14119	Low
Working principle	Magnetic drive
Installation conditions (mechanical)	quasi-flush
Housing material	Glass-fibre, reinforced thermoplastic
Gross weight	105 g

## General data - Features

Coding	Yes
Number of normally closed (NC)	2
Number of normally open (NO)	1
Number of safety contacts	2

## Safety classification

Standards	EN ISO 13849-1
Mission time	20 Year(s)

## Safety classification - Safety outputs

B <sub>10D</sub> - Value Normally-closed contact/Normally open contact (NC/NO)	25,000,000 Operations
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## Mechanical data

Actuating element	Magnet
Door hinge	Right
Latching force	100 N
Door weight, Sliding guard, maximal	3 kg
Door weight, Hinged guard, maximal	5 kg

## Mechanical data - Switching distances according EN IEC 60947-5-3

Assured switching distance "ON" $S_{ao}$	0 mm
Assured switching distance "OFF" $S_{ar}$	22 mm

## Mechanical data - Connection technique

Termination	Connector M12
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## Mechanical data - Dimensions

Length of sensor	43.3 mm
Width of sensor	119.5 mm
Height of sensor	140 mm

## Ambient conditions

Degree of protection	IP67
Ambient temperature	-25 ... +70 °C
Storage and transport temperature	-25 ... +70 °C
Resistance to vibrations	10 ... 55 Hz, amplitude 1 mm
Resistance to shock	30 g / 11 ms

## Electrical data

Switching voltage, maximum	24 VDC
Switching current, maximum	0.24 A
Switching capacity, maximum	3 W
Switching frequency, maximum	5 Hz

## Scope of delivery

Scope of delivery	Actuator must be ordered separately.
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## Accessory

Recommendation (actuator)	BNS-B20-B01
Recommended safety switchgear	SRB-E-301ST SRB-E-201LC

## Note

Note (General)	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.
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## Wiring example

Note (Wiring diagram)	Contact S21-S22 must be integrated in the safety circuit.
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## Ordering code

Product type description:  
BNS-B20-(1)Z(2)-(3)-(4)

(1)	
<b>12</b>	1 NO contact/2 NC contacts
<b>02</b>	2 NC contact
(2)	
<b>without</b>	without LED switching conditions display
<b>G</b>	with LED switching conditions display
(3)	
<b>without</b>	connecting cable bottom
<b>H</b>	connecting cable back
<b>ST</b>	M12 connector bottom
(4)	

- L** left hinged door (for bottom pre-wired cable or connector version only)
- R** right hinged door (for bottom pre-wired cable or connector version only)

## Pictures

### Product picture (catalogue individual photo)



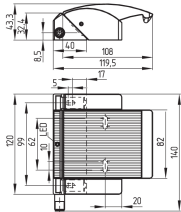
ID: kb-20f01  
 | 896.0 kB | .jpg | 352.425 x 388.408 mm - 999 x 1101 px - 72 dpi  
 | 58.8 kB | .png | 74.083 x 81.492 mm - 210 x 231 px - 72 dpi  
 | 75.8 kB | .jpg | 112.183 x 123.472 mm - 318 x 350 px - 72 dpi

### Product picture (catalogue individual photo)



ID: kb-20f15  
 | 373.7 kB | .jpg | 260.703 x 287.161 mm - 739 x 814 px - 72 dpi  
 | 46.8 kB | .png | 74.083 x 81.492 mm - 210 x 231 px - 72 dpi  
 | 56.5 kB | .jpg | 112.183 x 123.472 mm - 318 x 350 px - 72 dpi

### Dimensional drawing basic component



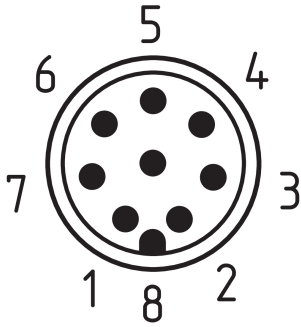
ID: 1b-20g01  
 | 93.9 kB | .cdr |  
 | 8.7 kB | .png | 74.083 x 51.506 mm - 210 x 146 px - 72 dpi  
 | 116.1 kB | .jpg | 352.778 x 245.181 mm - 1000 x 695 px - 72 dpi

### Diagram



ID: kb-20k05  
 | 17.8 kB | .cdr |  
 | 84.1 kB | .jpg | 352.778 x 85.372 mm - 1000 x 242 px - 72 dpi  
 | 3.6 kB | .png | 74.083 x 17.992 mm - 210 x 51 px - 72 dpi

## Contact arrangement

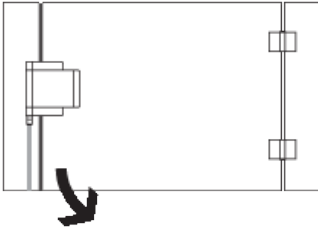


ID: km23-k8b

| 5.3 kB | .png | 73.731 x 79.728 mm - 209 x 226 px - 72 dpi

| 139.8 kB | .jpg | 352.778 x 380.647 mm - 1000 x 1079 px - 72 dpi

## Clipart



ID: kb20-c03

| 18.8 kB | .cdr |

| 1.3 kB | .png | 74.083 x 52.564 mm - 210 x 149 px - 72 dpi

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The details and data referred to have been carefully checked. Images may diverge from original. Further technical data can be found in the manual. Technical amendments and errors possible.

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