



## BNS 16-12ZR

- 3 cable entries M 20 x 1.5
- Wiring compartment
- Thermoplastic enclosure
- Suitable for food processing industry
- Concealed mounting possible
- 52 mm x 90 mm x 32 mm
- Long life
- no mechanical wear
- Insensitive to transverse misalignment
- Insensitive to soiling
- Coded reed contact safety switch

## Data

### Ordering data

Product type description	BNS 16-12ZR
Article number (order number)	101172556
EAN (European Article Number)	4030661301150
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

### 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)	not flush
Housing material	Glass-fibre, reinforced thermoplastic
Gross weight	120 g

### General data - Features

Coding	Yes
Prerequisite evaluation unit	Yes
Number of normally closed (NC)	2
Number of normally open (NO)	1

### Safety classification

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

### Safety classification - Safety outputs

$B_{10D}$ - Value Normally-closed contact/Normally open contact (NC/NO)	25,000,000 Operations
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### Mechanical data

Active area	right-hand side
Actuating element	Magnet
Direction of motion	Head-on to the active surface

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

Assured switching distance "ON" $S_{ao}$	8 mm
Assured switching distance "OFF" $S_{ar}$	18 mm

## Mechanical data - Connection technique

Termination	Screw terminals M20 x 1.5
Cable section, minimum	0.25 mm <sup>2</sup>
Cable section, maximum	1.5 mm <sup>2</sup>
Note	All indications including the conductor ferrules.

## Mechanical data - Dimensions

Length of sensor	39 mm
Width of sensor	52 mm
Height of sensor	90 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	100 VAC
Switching voltage, maximum	100 VDC
Switching current, maximum	0.4 A
Switching capacity, maximum	10 W
Switching element	1 NO contact, 2 NC contacts
Switching frequency, maximum	5 Hz

## Electrical data - Digital Output

Design of control elements	Miscellaneous, Reed contacts
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## Scope of delivery

Scope of delivery Actuator must be ordered separately.

## Accessory

Recommendation (actuator)	BPS 16
Recommended safety switchgear	SRB-E-301ST SRB-E-201LC

## Note

Note (General) Contact symbols shown for the closed condition of the guard device.

## Ordering code

Product type description:  
BNS 16-(1)Z(2)-(3)

(1)

<b>11</b>	1 NO contact / 1 NC contact (Only for connector version)
<b>12</b>	1 NO contact/2 NC contacts

(2)

<b>V</b>	Actuating planes front side
<b>R</b>	Actuating planes right-hand side
<b>L</b>	Actuating planes left-hand side
<b>D</b>	Actuating planes cover-side
<b>U</b>	Actuating planes bottom
<b>LR</b>	Actuating planes left-hand side/right-hand side

(3)

<b>ST1</b>	Connector in the middle
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ST2

Connector at the right-hand side

ST3

Connector at the left-hand side

## Pictures

### Product picture (catalogue individual photo)



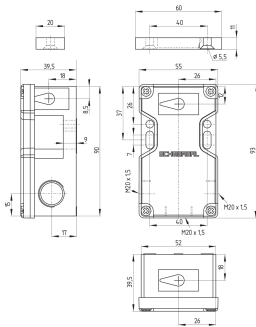
ID: kbns1f03

| 1.4 MB | .jpg | 352.778 x 563.033 mm - 1000 x 1596 px - 72 dpi

| 87.5 kB | .png | 74.083 x 118.181 mm - 210 x 335 px - 72 dpi

| 55.5 kB | .jpg | 77.258 x 123.472 mm - 219 x 350 px - 72 dpi

### Dimensional drawing basic component

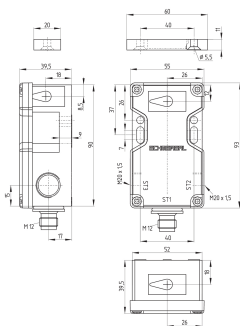


ID: kbns1g06

| 6.8 kB | .png | 74.083 x 93.839 mm - 210 x 266 px - 72 dpi

| 202.2 kB | .jpg | 352.778 x 447.322 mm - 1000 x 1268 px - 72 dpi

### Dimensional drawing basic component



ID: kbns1g07

| 99.1 kB | .ai | 420 x 297 mm - 1190 x 841 px - 72 dpi

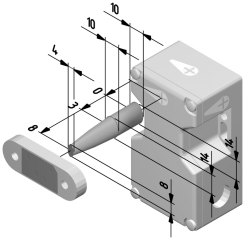
| 6.9 kB | .png | 74.083 x 99.131 mm - 210 x 281 px - 72 dpi

| 217.6 kB | .jpg | 352.778 x 473.075 mm - 1000 x 1341 px - 72 dpi

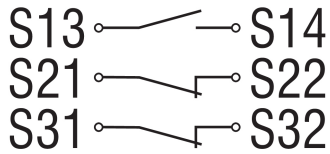
### Dimensional drawing miscellaneous

ID: kbns1a05

| 133.9 kB | .jpg | 352.778 x 352.778 mm - 1000 x 1000 px - 72 dpi



## Diagram



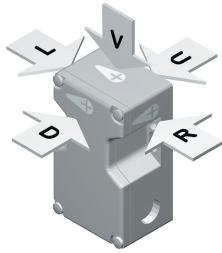
ID: k2o1sk10

| 40.1 kB | .cdr |

| 97.4 kB | .jpg | 352.778 x 157.339 mm - 1000 x 446 px - 72 dpi

| 3.2 kB | .png | 74.083 x 33.161 mm - 210 x 94 px - 72 dpi

## Operating principle



ID: kbns1a04

| 147.3 kB | .jpg | 352.778 x 352.778 mm - 1000 x 1000 px - 72 dpi

| 19.9 kB | .png | 74.083 x 74.083 mm - 210 x 210 px - 72 dpi

Schmersal India Pvt. Ltd., Plot No - G-7/1, Ranjangaon MIDC, Tal. - Shirur, Dist.- Pune 412 220

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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