



## BNS 120-02Z

- Ø M12
- Long life
- no mechanical wear
- Insensitive to soiling
- Thermoplastic enclosure
- Particularly large switching distance
- Insensitive to transverse misalignment
- Suitable for food processing industry only in combination with BP 15 SS

### Data

#### Ordering data

|                               |               |
|-------------------------------|---------------|
|                               | BNS 120-02Z   |
|                               | 101144422     |
| EAN (European Article Number) | 4030661133461 |
| eCI@ss number, Version 9.0    | 27-27-24-02   |

#### Approval - Standards

TÜV  
cULus  
EAC

#### General data

|                                         |                                       |
|-----------------------------------------|---------------------------------------|
|                                         | BNS 120                               |
|                                         | IEC 60947-5-3                         |
|                                         | BG-GS-ET-14                           |
| Installation conditions<br>(mechanical) | quasi-flush                           |
| Enclosure material                      | Glass-fibre, reinforced thermoplastic |
| Gross weight                            | 45 g                                  |

#### General data - Features

|                           |      |
|---------------------------|------|
| Coding                    | None |
| Number of openers         | 2    |
| Number of safety contacts | 2    |
| Number of cable wires     | 4    |

## Safety appraisal

ISO 13849-1

Mission Time

20 Year(s)

## Safety appraisal - Safety outputs

B10d Normally-closed contact  
(NC)

25,000,000 Operations

## Mechanical data

Actuating element

Magnet

Ensured switch distance "ON" S

20 mm

ao

Ensured switch distance "OFF" S

32 mm

ar

Actuating magnet BP 8, Sao: 10 mm

Actuating magnet BP 15 SS, Sao: 20 mm

Actuating magnet BP 10, Sao: 20 mm

Actuator switch distance

Actuating magnet BP 6, Sao: 10 mm

Actuating magnet BP 8, Sar: 22 mm

Actuating magnet BP 15 SS, Sar: 32 mm

Actuating magnet BP 6, Sar: 22 mm

Actuating magnet BP 10, Sar: 32 mm

Direction of motion

Head-on to the active surface

## Mechanical data - Connection technique

Terminal Connector

Cable

Length of cable

1 m

Wire cross-section

0.3 mm<sup>2</sup>

Wire cross-section

23 AWG

PVC

## Mechanical data - Dimensions

M12

Length of sensor

38.5 mm

## Ambient conditions

IP67

Ambient temperature, minimum -25 °C

Ambient temperature, maximum +70 °C

Storage and transport  
temperature, minimum

-25 °C

Storage and transport  
temperature, maximum

+70 °C

|                                          |                                              |
|------------------------------------------|----------------------------------------------|
| Resistance to vibrations to EN 60068-2-6 | 10 ... 55 Hz, amplitude 1 mm<br>30 g / 11 ms |
|------------------------------------------|----------------------------------------------|

#### Electrical data

|                              |                                                 |
|------------------------------|-------------------------------------------------|
| Voltage type                 | AC (alternating current)<br>DC (direct current) |
| Switching voltage, maximum   | 100 VAC                                         |
| Switching voltage, maximum   | 100 VDC                                         |
| Switching current, maximum   | 0.3 A                                           |
| Switching capacity, maximum  | 3 W                                             |
| Switching frequency, maximum | 5 Hz                                            |

#### Scope of delivery

|                      |                                       |
|----------------------|---------------------------------------|
| Included in delivery | Actuators must be ordered separately. |
|----------------------|---------------------------------------|

#### Accessory

BP 10  
BP 8  
BP 6  
BP 15 SS  
SRB-E-301ST  
SRB-E-201LC

#### Notes

|                |                                                                                                                                                                                                                   |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Note (General) | Contact symbols shown for the closed condition of the guard device.<br>The safety sensor must be mounted in such a way that actuation with another magnet is impossible (concealed mounting according to EN 1088) |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### Ordering code

Product type description:

BNS 120-(1)Z

(1)

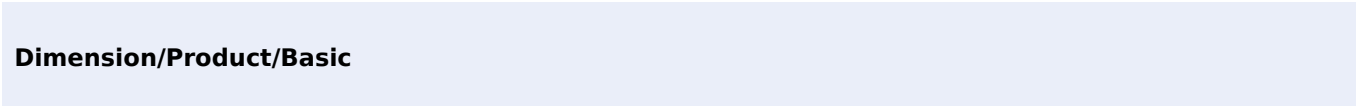
**11** 1 NO contacts/1 NC contact

**12** 1 NO contact/2 NC contacts

**02** 2 NC contact

#### Pictures

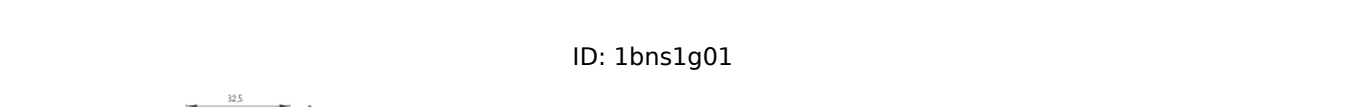
**Photo/Product/Catalogue**



| 183,5 kB | .jpg | 104.069 x 382.058 mm - 295 x 1083  
Pixel - 72 dpi

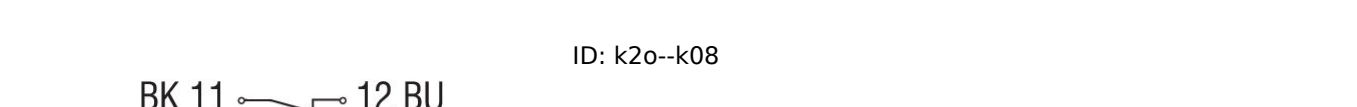
| 113,8 kB | .png | 74.083 x 271.639 mm - 210 x 770  
Pixel - 72 dpi

**Dimension/Product/Basic**



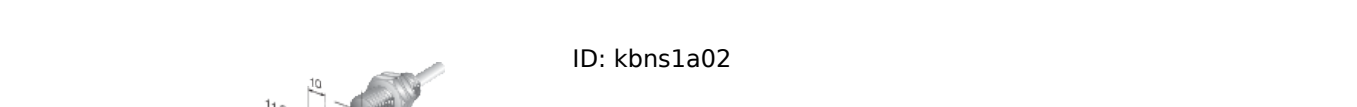
| 31,6 kB | .cdr |  
| 5,1 kB | .png | 74.083 x 51.506 mm - 210 x 146 Pixel  
- 72 dpi  
| 63,8 kB | .jpg | 352.778 x 245.886 mm - 1000 x 697  
Pixel - 72 dpi

**Graphic/Product/Contact**



| 51,9 kB | .jpg | 352.778 x 83.961 mm - 1000 x 238  
Pixel - 72 dpi  
| 17,5 kB | .cdr |

| Diagramm/Product/Curve | Diagramm                                                                            | Product  | Curve  |
|------------------------|-------------------------------------------------------------------------------------|----------|--------|
| 1                      |  | Constant | Linear |
| 2                      |  | Constant | Linear |
| 3                      |  | Constant | Linear |
| 4                      |  | Constant | Linear |
| 5                      |  | Constant | Linear |
| 6                      |  | Constant | Linear |
| 7                      |  | Constant | Linear |
| 8                      |  | Constant | Linear |
| 9                      |  | Constant | Linear |
| 10                     |  | Constant | Linear |
| 11                     |  | Constant | Linear |
| 12                     |  | Constant | Linear |
| 13                     |  | Constant | Linear |
| 14                     |  | Constant | Linear |
| 15                     |  | Constant | Linear |



| 17,7 kB | .png | 74.083 x 46.567 mm - 210 x 132  
Pixel - 72 dpi

| 133,7 kB | .jpg | 352.778 x 221.544 mm - 1000 x 628  
Pixel - 72 dpi

| 137,1 kB | .cdr |

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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+010047amSunday.31am31Europe/BerlinCET3501Europe/BerlinJanuary2021Sun, 31 Jan 2021 06:35:47
+010001am31
```