# DATASHEET



## EX-BNS 303-12Z-2187-3G/D

- Explosion protection for ATEX Zones 2 and 22
- Thermoplastic enclosure
- Ø M30
- With coding
- Insensitive to transverse misalignment
- Suitable for food processing industry only in combination with BPS 303 SS
- no mechanical wear

## Data

### Ordering data

| | |
|---|---|
| Product type description | EX-BNS 303-12Z-2187-3G/D |
| Article number (order number) | 101185026 |
| EAN (European Article Number) | 4030661333113 |
| 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 |

### Explosion protection

| | |
|---|---|
| Explosion protection: regulations | EN IEC 60079-0<br>EN IEC 60079-15<br>EN 60079-31 |
| Explosion protection zones | 2<br>22 |
| Explosion protection category | 3G<br>3D |
| Explosion protection designation | II 3G Ex nC IIC T6 Gc X<br>II 3D Ex tc IIIC T80°C Dc X |

| | |
|---|---|
| Manufacturer declaration | ATEX Zone 2 and 22 |

## General data

| | |
|---|---|
| Housing construction form | Cylinder, thread |
| Installation conditions (mechanical) | quasi-flush |
| Housing material | Glass-fibre, reinforced thermoplastic |
| Material of the nuts | Thermoplastic |
| Gross weight | 95 g |

## General data - Features

| | |
|---|---|
| Coding | Yes |
| Short circuit detection | Yes |
| Cross-circuit detection | Yes |
| Number of normally closed (NC) | 2 |
| Number of normally open (NO) | 1 |
| Number of safety contacts | 2 |
| Number of cable wires | 6 |

### 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 |

## Mechanical data

| | |
|---|---|
| Active area | front side |
| Actuating element | Magnet |

| | |
|---|---|
| Impact energy, maximum | 4 J |
| Direction of motion | Head-on to the active surface |
| Tightening torque of nuts, maximum | 3 Nm |

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

| | |
|---|---|
| Assured switching distance "ON" $S_{ao}$ | 5 mm |
| Assured switching distance "OFF" $S_{ar}$ | 15 mm |

## Mechanical data - Connection technique

| | |
|---|---|
| Length of cable | 1 m |
| Termination | Cable |
| Wire cross-section | 0.25 $mm^2$ |
| Wire cross-section | 23 AWG |
| Material of the Cable mantle | PVC |

## Mechanical data - Dimensions

| | |
|---|---|
| ISO thread of the sensor | M30 |
| width across flats | 36 BK |
| Length of sensor | 44 mm |

## Ambient conditions

| | |
|---|---|
| Degree of protection | IP67 |
| Ambient temperature | -25 ... +70 °C |
| Storage and transport temperature, minimum | -25 °C |
| Storage and transport temperature, maximum | +70 °C |
| Resistance to vibrations | 10 … 55 Hz, amplitude 1 mm |
| Restistance 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 frequency, maximum | 5 Hz |

## Electrical data - Digital Output

| | |
|---|---|
| Design of control elements | Miscellaneous, Reed contacts |

## Scope of delivery

| | |
|---|---|
| Scope of delivery | Actuator must be ordered separately. |
| Scope of delivery of mounting material | 2x nuts M30 x 1.5 |

## Accessory

| | |
|---|---|
| Recommendation (actuator) | BPS 300<br>BPS 303<br>BPS 303 SS<br>coded |
| Recommended safety switchgear | SRB-E-301ST<br>SRB-E-201LC |

## Note

| | |
|---|---|
| Note (General) | Contact symbols shown for the closed condition of the guard device.<br>The contact configuration for versions with or without LED is identical. |

## Ordering code

Product type description:
EX-BNS 303-(1)Z(2)-3G/D

| (1) | |
|---|---|
| **11** | 1 NO contact / 1 NC contact |

| | |
|---|---|
| **12** | 1 NO contact/2 NC contacts |
| **03** | 3 NC contact |

(2)

| | |
|---|---|
| **without** | without LED switching conditions display |
| **G** | with LED switching conditions display |

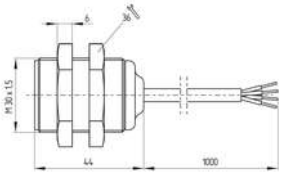
## Pictures

### Product picture (catalogue individual photo)



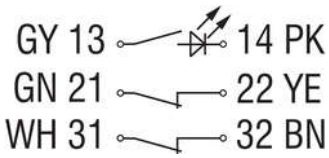
ID: kexbnf04
| 424.9 kB | .jpg | 311.856 x 468.136 mm - 884 x 1327 px - 72 dpi
| 39.4 kB | .png | 74.083 x 111.125 mm - 210 x 315 px - 72 dpi
| 32.8 kB | .jpg | 82.197 x 123.472 mm - 233 x 350 px - 72 dpi

### Dimensional drawing basic component



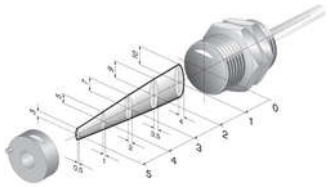
ID: 1bns3g02
| 30.4 kB | .cdr |
| 5.7 kB | .png | 74.083 x 51.506 mm - 210 x 146 px - 72 dpi
| 66.5 kB | .jpg | 352.778 x 245.886 mm - 1000 x 697 px - 72 dpi

### Diagram




ID: k2o1sk09
| 28.5 kB | .cdr |
| 92.2 kB | .jpg | 352.778 x 162.278 mm - 1000 x 460 px - 72 dpi
| 4.0 kB | .png | 74.083 x 34.219 mm - 210 x 97 px - 72 dpi

### Characteristic curve



ID: kbns3a02
| 17.7 kB | .png | 74.083 x 42.333 mm - 210 x 120 px - 72 dpi
| 148.1 kB | .jpg | 352.778 x 201.436 mm - 1000 x 571 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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