# Datasheet - EX-BNS40S-12Z-C

Safety sensors / EX-BNS40S





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

- · Stainless steel enclosure
- · Cable connection suitable for the food industry
- · Concealed mounting possible
- 88 mm x 27 mm x 14,5 mm
- · Long life
- no mechanical wear
- · Insensitive to soiling
- · Insensitive to transverse misalignment
- · Suitable for food processing industry
- Ex certified
- · especially easy to clean through concealed threaded holes at the rear

### **Ordering details**

Product type description

Article number

EAN code

eCl@ss

EX-BNS40S-12Z-C

103002174

27-27-24-02

## **Approval**

Approval

**ATEX** 

## Classification

Standards

B<sub>10d</sub> Normally-closed contact/Normally open contact (NC/NO)

- notice

Mission time

notice

EN ISO 13849-1

25.000.000

at max. 20% contact load

20 Years

$$MTTF_d = \frac{B_{10d}}{0.1 \times n_{op}}$$

$$n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{oyole}}$$

#### **Global Properties**

Product name

Standards

Compliance with the Directives (Y/N)  $\subset \epsilon$ 

Materials

- Material of the housings

- Material of the cable mantle

Housing construction form

Weight

Coding available (Y/N)

Concealed threaded holes on the back (Y/N)

EX-BNS40S

IEC 60947-5-3, BG-GS-ET-14, EN 60079-0, EN 60079-15, EN 60079-31

Yes

Stainless steel (V4A)

LiYY Block

Yes

Yes

Monitoring function of downstream devices (Y/N)

Prerequisite evaluation unit Yes

Recommended safety-monitoring module AES 1135, AES 1136, AES 1165, AES 1166, AES 1165-2250, AES 1185,

No

AES 1235, AES 1236, AES 1265, AES 1266, AES 1337, AES 2135, AES 2136, AES 2335, AES 2336, AES 2535, AES 2536, AES 2365, AES 2565, AES 2566, AES 2285, AES 3075, SRB 202C., SRB 400C., AES 3075

BPS 40S-1, BPS 40S-2, BPS 40S-1-C, BPS 40S-2-C Recommended actuator

#### **Mechanical data**

Design of electrical connection Cable Cable length 1 m

Conductors 6 x 0,25 mm<sup>2</sup>

AWG-Number

mechanical installation conditions not flush Active area Side Ensured switch distance ON Sao 8 mm Ensured switch distance OFF Sar 18 mm Type of actuation Magnet

Direction of motion head-on with regard to the active surface

restistance to shock 30 g / 11 ms

Resistance to vibration 10 ... 55 Hz, Amplitude 1 mm

max. 7 J Impact energy

#### **Ambient conditions**

Ambient temperature

- Min. environmental temperature -20 °C - Max. environmental temperature +60 °C

Storage and transport temperature

-25 °C - Min. Storage and transport temperature - Max. Storage and transport temperature +80 °C

Protection class IP65 / IP67 to IEC/EN 60529

## **Electrical data**

Integrated Safety monitoring module available (Y/N) No Cross circuit/short circuit recognition possible (Y/N) Yes Voltage type VAC/DC Switch frequency max. 5 Hz Switching voltage 24 max. VAC/DC

Switching current 250 mA max. 3 W max. Switching capacity Required rated short-circuit current 100 A

#### **Outputs**

Design of control output Other, Reed contakts

Number of shutters 1 piece Number of openers 2 piece

#### **Electrical data - Safety outputs**

Number of secure semi-conductor outputs 0 piece Number of secure outputs with contact 0 piece

### **Electrical data - Diagnostic output**

Number of semi-conductor outputs with signaling function 0 piece

Number of outputs with signaling function that already have a contact 0 piece

## LED switching conditions display

LED switching conditions display (Y/N) No

### **ATEX**

	EX II 3D Ex tc IIIC T80°C Dc EX II 3G Ex nA nC IIC T6 Gc
Explosion protection categories for gases	3G
Explosion protection Zones for gases	2
Explosion protected category for dusts	3D
Explosion protection Zones for dusts	22

#### **Dimensions**

Dimensions of the sensor

- Width of sensor
- Height of sensor
- Length of sensor
14.5 mm

### notice

Contact symbols shown for the closed condition of the guard device.

Contact S21-S22 must be integrated in the safety circuit

The contact configuration for versions with or without LED is identical.

## Included in delivery

Actuators must be ordered separately.

### **Ordering code**

EX-BNS40S-12Z(1)-(2)-3GD

LX-DNO+00-122(1)-(2)-00L

withoutwithout LED switching conditions displayGwith LED switching conditions display

(2)

(1)

without With countersunk mounting holes

C concealed threaded holes on the back

### **Documents**

Operating instructions and Declaration of conformity (de) 318 kB, 03.09.2012

Code: mrl\_ex-bns40s\_de

Operating instructions and Declaration of conformity (jp) 391 kB, 18.09.2012

Code: mrl\_ex-bns40s\_jp

Operating instructions and Declaration of conformity (da) 279 kB, 05.06.2013

Code: mrl\_ex-bns40s\_da

Operating instructions and Declaration of conformity (pt) 282 kB, 05.06.2013

Code: mrl\_ex-bns40s\_pt

Operating instructions and Declaration of conformity (it) 309 kB, 18.09.2012

Code: mrl\_ex-bns40s\_it

Operating instructions and Declaration of conformity (nl) 311 kB, 08.11.2012

Code: mrl\_ex-bns40s\_nl

Operating instructions and Declaration of conformity (es) 311 kB, 18.09.2012

Code: mrl\_ex-bns40s\_es

Operating instructions and Declaration of conformity (pl) 302 kB, 23.09.2014

Code: mrl\_ex-bns40s\_pl

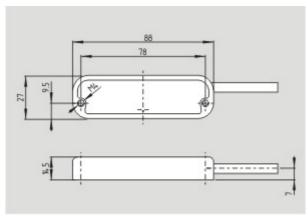
Operating instructions and Declaration of conformity (en) 314 kB, 03.09.2012

Code: mrl\_ex-bns40s\_en

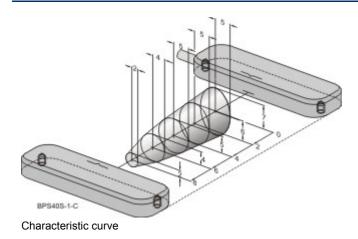
Operating instructions and Declaration of conformity (cs) 279 kB, 04.06.2013

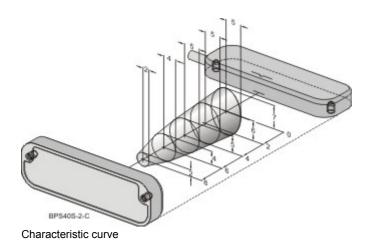
Code: mrl\_ex-bns40s\_cs

## **Images**



Dimensional drawing (basic component)





GY S13 S14 PK GN S21 S22 YE WH S31 S32 BN

K.A. Schmersal GmbH & Co. KG, Möddinghofe 30, D-42279 Wuppertal The data and values have been checked throroughly. Technical modifications and errors excepted. Generiert am 08.04.2015 - 16:39:43h Kasbase 3.1.2.F.64I