

## Datasheet - BNS 40S-12Z

Safety sensors / BNS 40S



(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

### Ordering details

Product type description	BNS 40S-12Z
Article number	101215517
EAN Code	
eCl@ss	27-27-24-02

### Approval

Approval



### Classification

Standards	EN ISO 13849-1
B10d Normally-closed contact/Normally open contact (NC/NO)	25.000.000
- notice	at max. 20% contact load
Mission time	20 Years
notice	$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{cycle}}$

### Global Properties

Permanent light	BNS 40S
Standards	IEC 60947-5-3, BG-GS-ET-14
Compliance with the Directives (Y/N)	Yes
Materials	
- Material of the housings	Stainless steel (V4A)
- Material of the cable mantle	LiYY
Weight	
Coding available (Y/N)	Yes
Concealed threaded holes on the back (Y/N)	No
Monitoring function of downstream devices (Y/N)	No

Prerequisite evaluation unit	Yes
Recommended safety-monitoring module	AES 1135, AES 1136, AES 1165, AES 1166, AES 1165-2250, AES 1185, 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, SRB202C., SRB400C., AES 3075
Recommended actuator	BPS 40S-1, BPS 40S-2, BPS 40S-1-C, BPS 40S-2-C

## Mechanical data

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Design of electrical connection	Cable
Cable length	1
Conductors	6 x 0,25
AWG-Number	23
mechanical installation conditions	not flush
Active area	Side
Ensured switch distance ON $S_{ao}$	8 mm
Ensured switch distance OFF $S_{ar}$	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

## Ambient conditions

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Ambient temperature	
- Min. environmental temperature	-25
- Max. environmental temperature	+80
Storage and transport temperature	
- Min. Storage and transport temperature	-25
- Max. Storage and transport temperature	+80
Protection class	IP69K

## Electrical data

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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	100 max. VAC/DC
Switching current	250 mA max.
Switching capacity	3 W max.

## Outputs

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Design of control output	Other, Reed kontakts
Number of shutters	1
Number of openers	2

## Electrical data - Safety outputs

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

## Electrical data - Diagnostic output

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Number of semi-conductor outputs with signaling function	0
Number of outputs with signaling function that already have a contact	0

### LED switching conditions display

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LED switching conditions display (Y/N)	No
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### ATEX

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Explosion protection categories for gases	None
Explosion protected category for dusts	None

### Dimensions

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Dimensions of the sensor	
- Width of sensor	88
- Height of sensor	27
- Length of sensor	14.5

### notice

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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

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Actuators must be ordered separately.

### Ordering code

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BNS 40S-12Z(1)-(2)

(1)  
*without* without LED switching conditions display  
**G** with LED switching conditions display

(2)  
*without* With countersunk mounting holes Ø 4.2 mm  
**C** M4

### Documents

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**Operating instructions and Declaration of conformity (da)** 285 kB, 08.08.2012  
Code: mrl\_bns40s\_da

**Operating instructions and Declaration of conformity (de)** 286 kB, 04.10.2017  
Code: mrl\_bns40s\_de

**Operating instructions and Declaration of conformity (sv)** 282 kB, 16.04.2012  
Code: mrl\_bns40s\_sv

**Operating instructions and Declaration of conformity (fr)** 290 kB, 27.03.2017

Code: mrl\_bns40s\_fr

**Operating instructions and Declaration of conformity (jp)** 408 kB, 03.01.2018

Code: mrl\_bns40s\_jp

**Operating instructions and Declaration of conformity (pl)** 318 kB, 22.05.2017

Code: mrl\_bns40s\_pl

**Operating instructions and Declaration of conformity (pt)** 292 kB, 10.05.2017

Code: mrl\_bns40s\_pt

**Operating instructions and Declaration of conformity (it)** 286 kB, 26.06.2017

Code: mrl\_bns40s\_it

**Operating instructions and Declaration of conformity (nl)** 302 kB, 03.07.2018

Code: mrl\_bns40s\_nl

**Operating instructions and Declaration of conformity (es)** 290 kB, 07.04.2017

Code: mrl\_bns40s\_es

**Operating instructions and Declaration of conformity (en)** 289 kB, 04.10.2017

Code: mrl\_bns40s\_en

**ECOLAB certification (en)** 382 kB, 25.04.2012

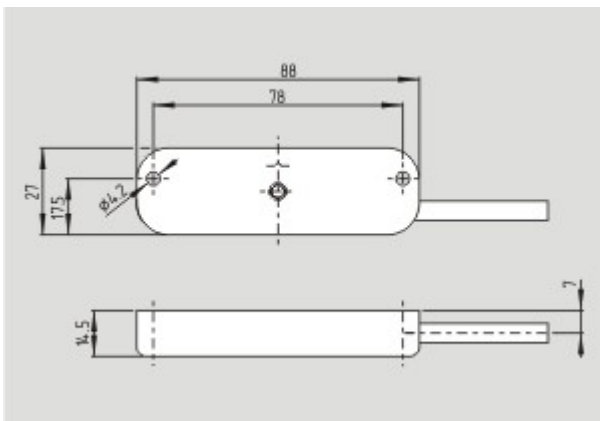
Code: q\_bnsp02

**ECOLAB certification (de)** 383 kB, 25.04.2012

Code: q\_bnsp01

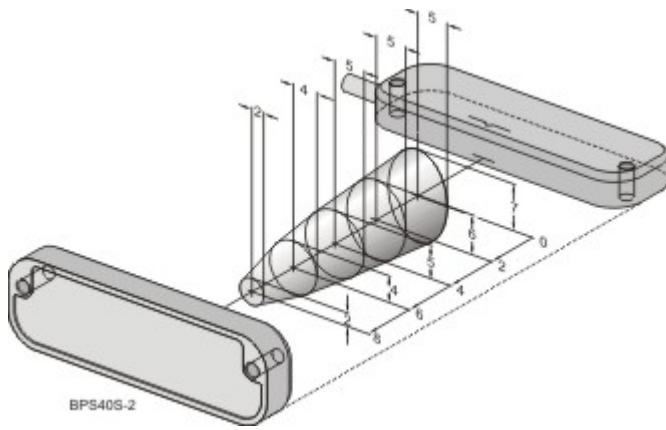
## Images

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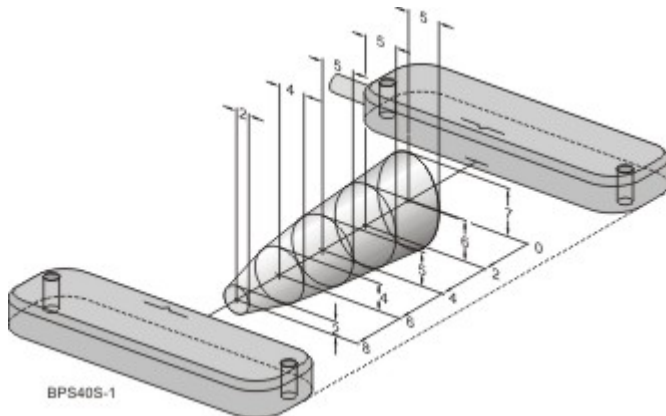
Dimensional drawing (basic component)

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Characteristic curve

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Characteristic curve

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## System components

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### Product



#### 103004897 - RM40S-C

- Door stop with magnetic latching
  - combinable from all sides
  - Latching force mounting-dependent
  - Stainless steel enclosure
  - Insensitive to soiling
  - Suitable for food processing industry
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#### 103004893 - RM40S-1C

- Door stop with magnetic latching
  - combinable from all sides
  - Latching force mounting-dependent
  - Stainless steel enclosure
  - Insensitive to soiling
  - Suitable for food processing industry
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#### 103004896 - RM40S

- Door stop with magnetic latching
  - combinable from all sides
  - Latching force mounting-dependent
  - Stainless steel enclosure
  - Insensitive to soiling
  - Suitable for food processing industry
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## Actuator



#### 101215267 - BPS 40S-2-C

- Stainless steel enclosure
- Actuator 90 ° attached to the sensor



#### 101215266 - BPS 40S-1-C

- Stainless steel enclosure
- Actuator and sensor on a mounting level



#### 101215269 - BPS 40S-2

- Stainless steel enclosure
- Actuator 90 ° attached to the sensor



#### 101215268 - BPS 40S-1

- Stainless steel enclosure
- Actuator and sensor on a mounting level

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The data and values have been checked thoroughly. Technical modifications and errors excepted.

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