01.02.2016

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Datasheet - BNS 40S-12Z

Safety sensors / BNS 40S



SCHMERSRL Image: Schwerzal GebH C (Schwerzal GebH C (Sch	 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	BG USA/CAN
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	$MTTF_{d} = \frac{B_{10d}}{0.1 \times n_{op}}$

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

Global Properties

Product name Standards	BNS 40S IEC 60947-5-3, BG-GS-ET-14
Compliance with the Directives (Y/N) CE	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

Recommended actuator

Mechanical data

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 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

Design of electrical connection	Cable
Cable length	1 m
Conductors	6 x 0,25 mm²
AWG-Number	23
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

Yes

Ambient conditions

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

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

Outputs

Design of control output	Other, Reed contakts	
Number of shutters	1 piece	
Number of openers	2 piece	
Electrical data - Safety outputs		

0 piece

0 piece

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

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)	Νο
ATEX	
Explosion protection categories for gases	None
Explosion protected category for dusts	None
Dimensions	
Dimensions of the sensor	
- Width of sensor	88 mm
- Height of sensor	27 mm
- 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

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
с	M4

Documents

Operating instructions and Declaration of conformity (da) 285 kB, 08.08.2012 Code: mrl_bns40s_da

Operating instructions and Declaration of conformity (de) 291 kB, 15.07.2015 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) 284 kB, 01.09.2015

Code: mrl_bns40s_fr

Operating instructions and Declaration of conformity (jp) 361 kB, 24.05.2012 Code: mrl_bns40s_jp

Operating instructions and Declaration of conformity (pl) 290 kB, 03.02.2015 Code: mrl_bns40s_pl

Operating instructions and Declaration of conformity (pt) 286 kB, 16.04.2012 Code: mrl_bns40s_pt

Operating instructions and Declaration of conformity (it) 282 kB, 16.04.2012 Code: mrl_bns40s_it

Operating instructions and Declaration of conformity (nl) 280 kB, 08.11.2012 Code: mrl_bns40s_nl

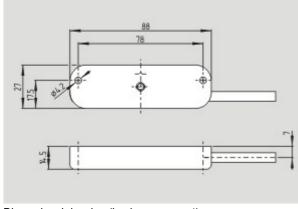
Operating instructions and Declaration of conformity (es) 283 kB, 28.07.2015 Code: mrl_bns40s_es

Operating instructions and Declaration of conformity (en) 287 kB, 15.07.2015 Code: mrl_bns40s_en

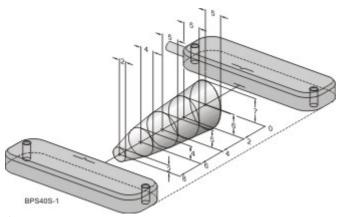
ECOLAB certification (en) 382 kB, 25.04.2012 Code: q_bnsp02

ECOLAB certification (de) 383 kB, 25.04.2012 Code: q_bnsp01

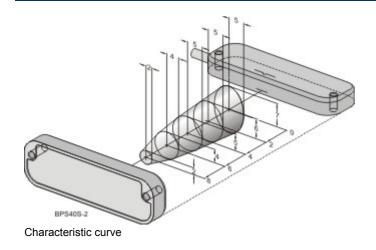
Images



Dimensional drawing (basic component)



Characteristic curve



System components

Product



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103004897 - RM40S-C

- Door stop with magnetic latching
- Stainless steel enclosure
- Insensitive to soiling
- Suitable for food processing industry

103004893 - RM40S-1C

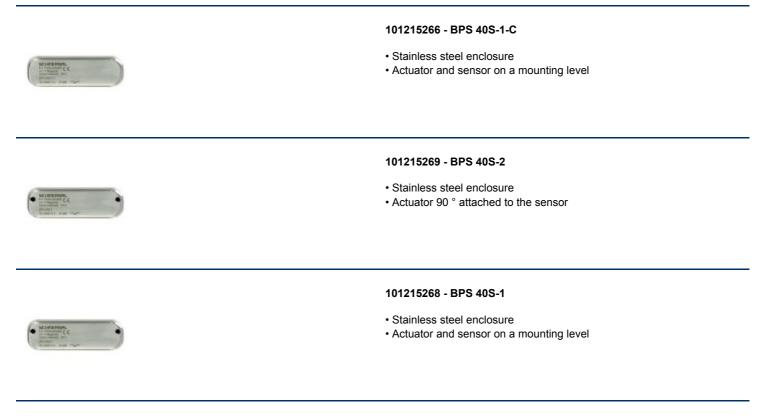
- Door stop with magnetic latching
- Stainless steel enclosure
- Insensitive to soiling
- Suitable for food processing industry

103004896 - RM40S

- Door stop with magnetic latching
- Stainless steel enclosure
- Insensitive to soiling
- Suitable for food processing industry



- Stainless steel enclosure
- \bullet Actuator 90 $^\circ$ attached to the sensor



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 01.02.2016 - 02:11:22h Kasbase 3.2.1.F.64I