

Datasheet - EX-BNS40S-12ZG

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
- LED version

Ordering details

Product type description	EX-BNS40S-12ZG
Article number	103002171
EAN Code	
eCl@ss	27-27-24-02


Approval

Approval	ATEX
----------	------

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	$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{op} \times h_{cp} \times 3600 \text{ s/h}}{t_{cycle}}$

Global Properties

Permanent light	EX-BNS40S
Standards	IEC 60947-5-3, BG-GS-ET-14, EN 60079-0, EN 60079-15, EN 60079-31
Compliance with the Directives (Y/N) 	Yes
Materials	
- Material of the housings	Stainless steel (V4A)
- Material of the cable mantle	LiYY
Housing construction form	Block
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, SRB 202C., SRB 400C., AES 3075
Recommended actuator	BPS 40S-1, BPS 40S-2, BPS 40S-1-C, BPS 40S-2-C

Mechanical data

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	8
Ensured switch distance OFF	18
Type of actuation	Magnet
Direction of motion	head-on with regard to the active surface
restistance to shock	30 / 11
Resistance to vibration	10 ... 55 HZ, Amplitude 1 mm
Impact energy	7

Ambient conditions

Ambient temperature	
- Min. environmental temperature	-20
- Max. environmental temperature	+60
Storage and transport temperature	
- Min. Storage and transport temperature	-25
- Max. Storage and transport temperature	+80
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	
Switch frequency	5
Switching voltage	24
Switching current	10
Switching capacity	240 mW
Required rated short-circuit current	100 A

Outputs

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

Electrical data - Safety outputs

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

Electrical data - Diagnostic output

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

LED switching conditions display (Y/N)	Yes
- The LED is illuminated when the guard is closed.	

ATEX

EX-marking	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	88
- Height of sensor	27
- Length of sensor	14.5

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

(1)	
<i>without</i>	without LED switching conditions display
G	with LED switching conditions display
(2)	
<i>without</i>	With countersunk mounting holes
C	concealed threaded holes on the back

Documents

Operating instructions and Declaration of conformity (de) 305 kB, 29.09.2017

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) 336 kB, 17.10.2017

Code: mrl_ex-bns40s_pt

Operating instructions and Declaration of conformity (it) 328 kB, 17.10.2017

Code: mrl_ex-bns40s_it

Operating instructions and Declaration of conformity (nl) 305 kB, 07.08.2018

Code: mrl_ex-bns40s_nl

Operating instructions and Declaration of conformity (es) 332 kB, 17.10.2017

Code: mrl_ex-bns40s_es

Operating instructions and Declaration of conformity (pl) 351 kB, 01.02.2018

Code: mrl_ex-bns40s_pl

Operating instructions and Declaration of conformity (en) 305 kB, 29.09.2017

Code: mrl_ex-bns40s_en

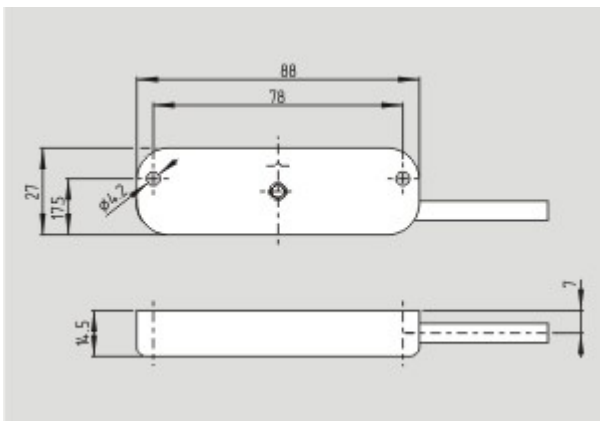
Operating instructions and Declaration of conformity (fr) 333 kB, 13.10.2017

Code: mrl_ex-bns40s_fr

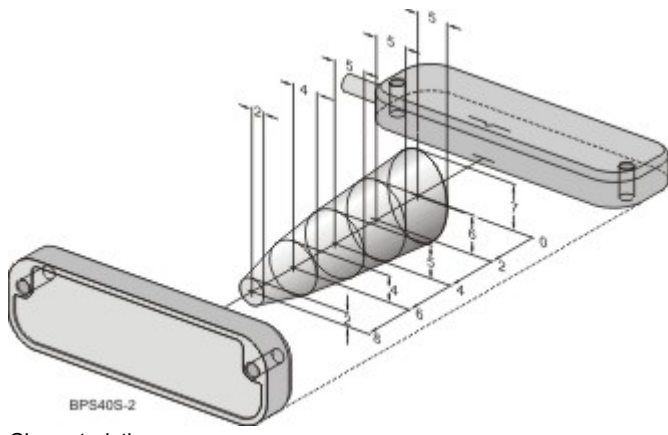
Operating instructions and Declaration of conformity (cs) 279 kB, 04.06.2013

Code: mrl_ex-bns40s_cs

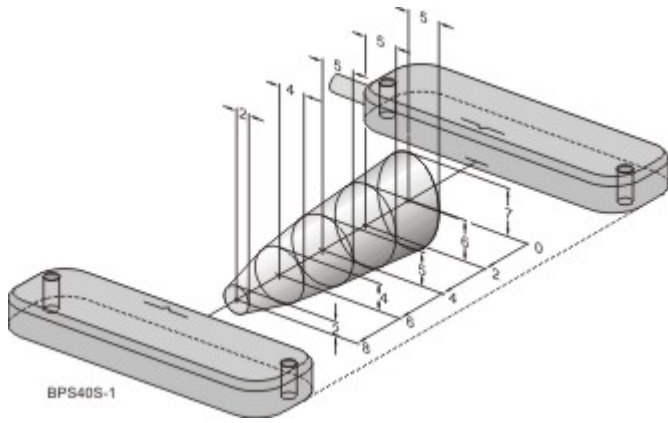
Images



Dimensional drawing (basic component)



Characteristic curve



Characteristic curve
