

Datasheet - BNS 36 STW-AS-L

AS interface safety at work / Safety switchgear / Safety sensors / BNS 36 AS



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

- Safety sensor
- Thermoplastic enclosure
- no mechanical wear
- 88 mm x 25 mm x 13 mm
- Integrated AS-Interface
- Concealed mounting possible
- Long life
- Insensitive to transverse misalignment
- Insensitive to soiling
- AS-Interface LED and status display
- 2 m Pre-wired cable with connector M12, angled, 4-pole

Ordering details

Product type description	BNS 36 STW-AS-L
Article number	101194957
EAN Code	4030661362212
eCl@ss	27-27-24-02

Approval


Approval



Classification

Standards	EN ISO 13849-1, IEC 61508
PL	up e
Control category	bis 4
PFH	1.24 x 10 ⁻⁸ / h
- notice	up to max. 500.000 switching cycles/year
SIL	up 3
Mission time	20 Years

Global Properties

Permanent light	BNS 36 AS
Standards	EN 50295, IEC 60947-5-3, EN ISO 13849-1, IEC 61508
Compliance with the Directives (Y/N) 	Yes
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic
- Material of the cable mantle	LSYY
Weight	100
Coding available (Y/N)	Yes

Response time	< 100
Recommended actuator	BPS 36-1, BPS 36-2

Mechanical data

Design of electrical connection	Pre-wired cable with connector M12, angled, 4-pole
Cable length	2
Conductors	2 x 0,23
AWG-Number	23
mechanical installation conditions	quasi-flush
Ensured switch distance ON S_{ao}	7 mm
Ensured switch distance OFF S_{ar}	17 mm
Repeat accuracy R_R	$R \leq 0,1 \times S_{ao}$
notice	Axial misalignment The safety sensor and the actuator tolerate a horizontal and vertical misalignment to each other. The possible misalignment depends on the distance of the active surfaces of the sensor and the actuator. The sensor is active in the tolerance range.
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
Door hinge	left

Ambient conditions

Ambient temperature	
- Min. environmental temperature	-25
- Max. environmental temperature	+60
Storage and transport temperature	
- Min. Storage and transport temperature	-25
- Max. Storage and transport temperature	+70
Protection class	IP67 to IEC/EN 60529
Air clearances and creepage distances To IEC/EN 60664-1	
- Rated impulse withstand voltage U_{imp}	0,8 kV
- Rated insulation voltage U_i	32 VDC
- Overvoltage category	III
- Degree of pollution	3

Electrical data - AS interface

AS-i Supply voltage	26.5 ... 31.6 VDC, Protection against polarity reversal
AS-i operating current	≤ 50
AS-i Device insulation	internally short-circuit proof
AS-i Specification	
- version	V 2.1
- Profile	S-0.B.F.E
- IO-Code	0x0
- ID-Code	0xB
- ID-Code1	0xF
- ID-Code2	0xE
AS-i Inputs	
- Channel 1	Data bits DI 0/DI 1= dynamic code transmission
- Channel 2	Data bits DI 2/DI 3= dynamic code transmission
AS-i Outputs	DO 0 ... DO 3 not used

AS-i Parameter bits	P0 ... P3 not used
AS-i input module address	0
- Default on address 0, programmable via the AS-Interface Master or Hand-held programming device	

LED switching conditions display

LED switching conditions display (Y/N)	Yes
AS-i LED switching conditions display	
(1) green/red LED (AS-i duo LED)	Supply voltage / Communication error / slave address = 0
(2) yellow LED	Enabling status

ATEX

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

Dimensions

Dimensions of the sensor	
- Width of sensor	88
- Height of sensor	25
- Length of sensor	13

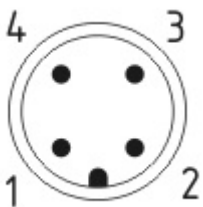
Pin assignment

1	AS-i +
2	None
3	AS-i -
4	None

Included in delivery

Actuators must be ordered separately.

Diagram



Note Diagram

- positive break NC contact
- active
- no active
- Normally-open contact
- Normally-closed contact

Ordering code

BNS 36 (1)-AS-(2)

(1)

without

Pre-wired cable 2 m

STG

Pre-wired cable with Connector M12, straight 4-pole

STW

Pre-wired cable with Connector M12, angled, 4-pole

(2)

L

Door hinge left

R

Door hinge right

Documents

Operating instructions and Declaration of conformity (it) 244 kB, 22.12.2017

Code: mrl_bns36as_it

Operating instructions and Declaration of conformity (pt) 246 kB, 22.12.2017

Code: mrl_bns36as_pt

Operating instructions and Declaration of conformity (es) 253 kB, 22.12.2017

Code: mrl_bns36as_es

Operating instructions and Declaration of conformity (de) 228 kB, 16.11.2017

Code: mrl_bns36as_de

Operating instructions and Declaration of conformity (nl) 246 kB, 03.08.2018

Code: mrl_bns36as_nl

Operating instructions and Declaration of conformity (da) 224 kB, 24.09.2015

Code: mrl_bns36as_da

Operating instructions and Declaration of conformity (jp) 413 kB, 28.09.2011

Code: mrl_bns36as_jp

Operating instructions and Declaration of conformity (en) 245 kB, 16.11.2017

Code: mrl_bns36as_en

Operating instructions and Declaration of conformity (fr) 247 kB, 22.12.2017

Code: mrl_bns36as_fr

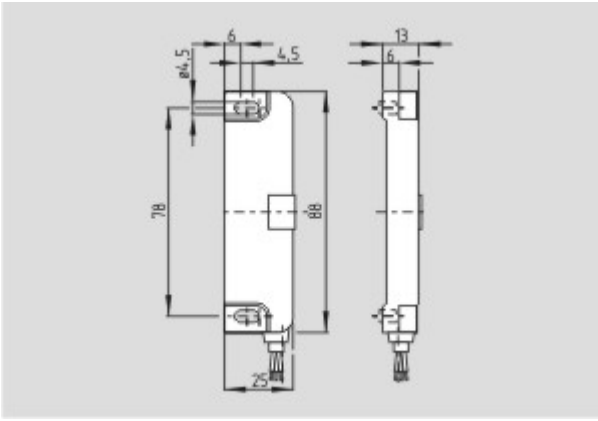
Operating instructions and Declaration of conformity (pl) 258 kB, 02.05.2018

Code: mrl_bns36as_pl

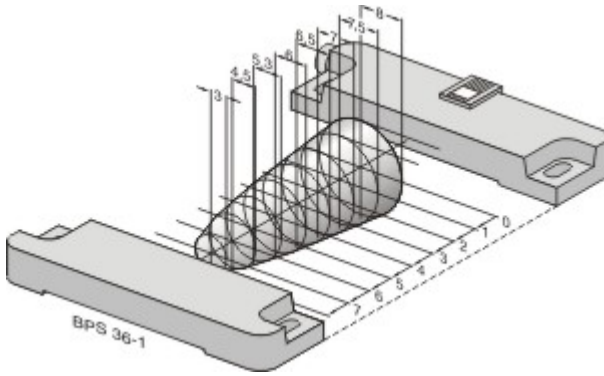
TÜV certification (de, en) 1 MB, 24.09.2014

Code: z_asip010

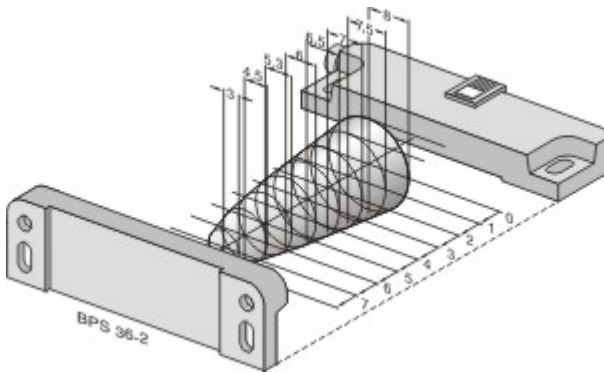
Images



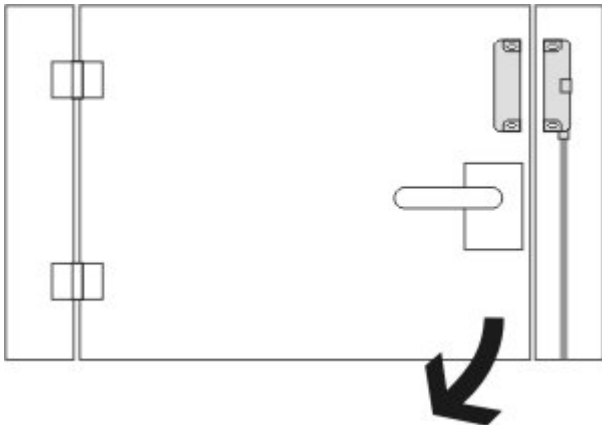
Dimensional drawing (basic component)



Characteristic curve



Characteristic curve



Operating principle

System components

Actuator



101191859 - BPS 36-2

- Actuator 90 ° attached to the sensor



101190052 - BPS 36-1

- Actuator and sensor on a mounting level

Accessories



101188624 - SPACER BNS 36

- to mount the magnetic safety sensor and actuator on ferromagnetic material

K.A. Schmersal GmbH & Co. KG, Möddinghofe 30, D-42279 Wuppertal

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

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