

Datasheet - BN 65-10Z

Magnetic reed switch / BN 65

☒ Preferred typ



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

- With pre-wired cable
- Non-contact principle
- Actuation from side
- Long life
- with bias magnet
- Actuating surface and direction of actuation marked by switch symbol
- Construction form Ø 13 mm
- Thermoplastic enclosure
- Actuating distance up to 60 mm depending on actuating magnet and version
- with central mounting

Ordering details

Product type description	BN 65-10Z
Article number	101055787
EAN code	4030661009469


Approval

Approval



USA/CAN

Global Properties

Product name	BN 65
Standards	-
Compliance with the Directives (Y/N) 	Yes
suitable for elevators (Y/N)	Yes
Mounting	central with threaded flange
Active principle	Magnetic drive
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic
- Material of the cable mantle	H03VV-F
Housing construction form	cylinder smooth
Weight	70 g
Recommended actuator	BP 10, 2 x BP 10, BP 15, 2 x BP 15, 2 x BP 15/2, BP 34, BP 20, BP 31, BP 11, BP 12, BP 21

- Lift switchgear

BP 10, 2 x BP 10, 2 x BP 15/2, BP 15, 2 x BP 15, BP 34

Mechanical data

Design of electrical connection	Cable
Cable length	1 m
Conductors	2 x 0,75 mm ²
AWG-Number	18
Mechanical life	1.000.000.e+9 operations
Electrical lifetime	1.000.000 operations ... 1.000.000.e+9 operations operations
Switching frequency	max. 300/s
Actuating planes	Actuation from side
Switch distance S _n	5 mm ... 50 mm BP 10 = 5 mm 2 x BP 10 = 17 mm BP 15 = 6 mm 2 x BP 15 = 17mm 2 x BP 15/2 = 17 mm BP 34 = 15 ... 20 mm BP 20 = 20 mm BP 31 = 20 mm BP 11 = 20 mm BP 12 = 10 ... 30 mm BP 21 = 25 ... 50 mm
- notice	Actuating distance up to 50 mm depending on actuating magnet and version The specifications with regard to the switching distances apply to the actuation of the individually mounted devices without ferromagnetic influence. Any change of the distance, positive either negative, is possible due to ferromagnetic interference. When multiple actuating magnets are used, the mutual interference must be observed.
Type of actuation	Magnet
restistance to shock	30 g, on sine wave oscillation
resistant to vibration	30 g, on sine wave oscillation
Resistance to vibration	10 ... 55 Hz, Amplitude 1 mm
Bounce duration	0,3 ms ... 0,6 ms; max. 3 ms
Latching (Y/N)	No
bias magnet (Y/N)	Yes
Tightening torque for nuts	A/F 22 max. 300 Ncm
Actuating speed	max. 18 m/s
Switching point accuracy	± 0,25 mm

Ambient conditions

Ambient temperature	
- Min. environmental temperature	-25 °C
- Max. environmental temperature	+75 °C
Protection class	IP67 to IEC/EN 60529

Electrical data

Design of control element	Normally open contact (NO)
Number of shutters	1 piece
Number of openers	0 piece
Switching time - Close	0,3 ms ... 1.5 ms
Switching time - Open	-
Switch frequency	< 300 Hz

Dielectric strength	> 600 VAC (50 Hz)
Switching voltage	max. 250 VAC
Switching current	max. 3 A
Switching capacity	max. 120 W

Outputs

Design of control output	Reed kontakts
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LED switching conditions display

LED switching conditions display (Y/N)	No
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ATEX

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

Dimensions

Dimensions of the sensor	
- Length of sensor	103 mm
- Diameter of sensor	13 mm

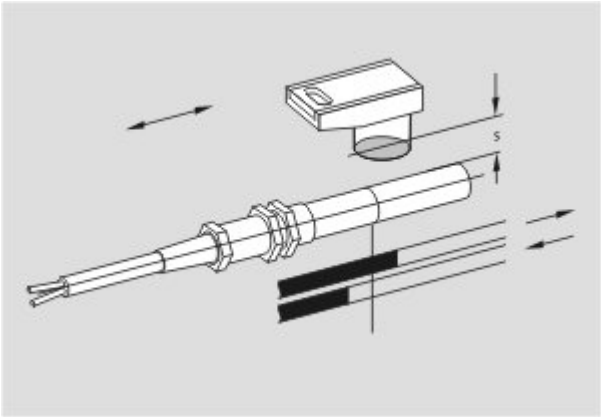
notice

The opening and closing functions depend on the direction of actuation, the actuating magnets and the polarity of the actuating magnets. When the switches and actuators come together, the colours must coincide: Red (S) to red (S) and green (N) to green (N). This does not apply to the bistable contact.


Included in delivery

Actuators must be ordered separately.

Diagram



- Note Diagram
- positive break NC contact
 - active
 - no active
 - Normally-open contact

 Normally-closed contact

Switch travel diagram





Notes Switch travel diagram

 Contact closed

 Contact open

 Setting range

 Break point

 Positive opening sequence/- angle

VS adjustable range of NO contact

VÖ adjustable range of NC contact

N after travel

Documents

Declaration of conformity (en) 118 kB, 26.02.2014

Code: __bn_p01_en

Declaration of conformity (de) 188 kB, 10.07.2012

Code: __bn_p01

notice - Switch distance (de) 36 kB, 07.08.2009

Code: s_bnsp01

notice - Switch distance (nl) 39 kB, 07.08.2009

Code: s_bnsp04

notice - Switch distance (fr) 41 kB, 07.08.2009

Code: s_bnsp03

notice - Switch distance (pt) 39 kB, 07.08.2009

Code: s_bnsp10

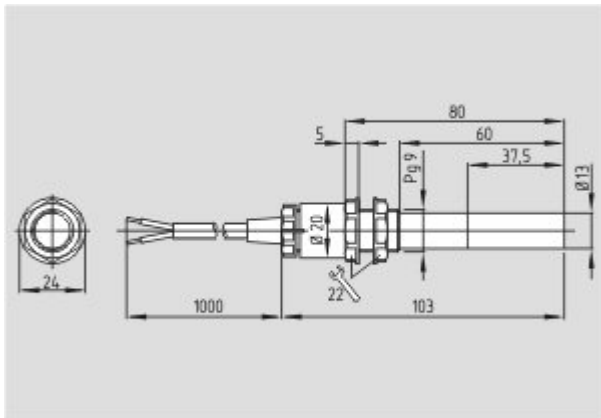
notice - Switch distance (it) 40 kB, 07.08.2009

Code: s_bnsp05

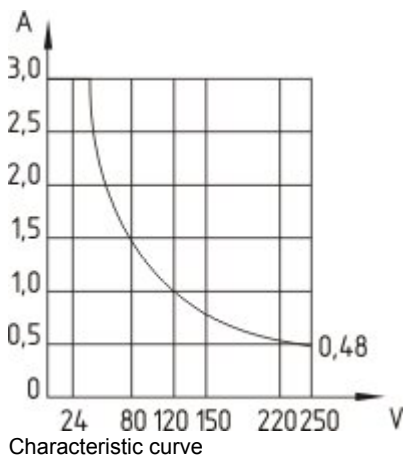
notice - Switch distance (es) 38 kB, 07.08.2009

Code: s_bnsp09

Images



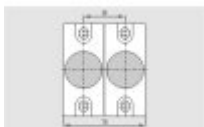
Dimensional drawing (basic component)



Characteristic curve

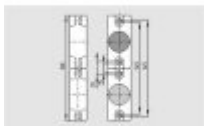
System components

Actuator



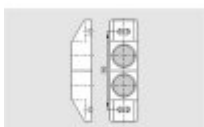
101057546 - BP 2x22/2 N(S)

- Zn-metal housing
- N-pole marked green
- S-pole marked red
- 33% magnetic force
- Suitable for mounting on ferrous material
- Can be used as N or S magnet



101057432 - BP 22 N (S)

- Zn-metal housing
- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material
- Can be used as N or S magnet

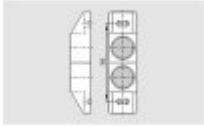


101059927 - BP 2x21 S

- Al-metal housing
- S-pole marked red
- Suitable for mounting on ferrous material

101059928 - BP 2x21 N

- Al-metal housing

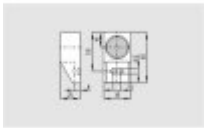


- N-pole marked green
- Suitable for mounting on ferrous material



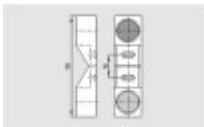
101057534 - BP 21 S

- Al-metal housing
- S-pole marked red
- Suitable for mounting on ferrous material



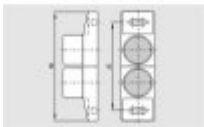
101057536 - BP 21 N

- Al-metal housing
- N-pole marked green
- Suitable for mounting on ferrous material



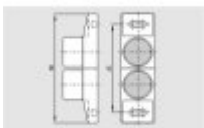
101059921 - BP 21

- Al-metal housing
- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material



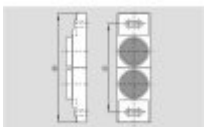
101059926 - BP 2x12 S

- Al-metal housing
- S-pole marked red
- Suitable for mounting on ferrous material



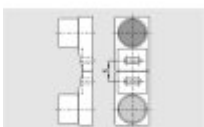
101059925 - BP 2x12 N

- Al-metal housing
- N-pole marked green
- Suitable for mounting on ferrous material



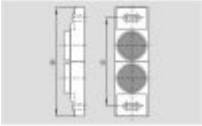
101059917 - BP 12 N

- Al-metal housing
- N-pole marked green
- Suitable for mounting on ferrous material



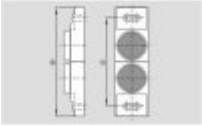
101059916 - BP 12

- Al-metal housing
- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material



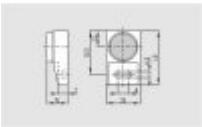
101059930 - BP 2x11 S

- Al-metal housing
- S-pole marked red
- Suitable for mounting on ferrous material



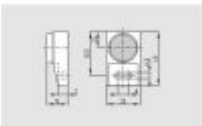
101059929 - BP 2x11 N

- Al-metal housing
- N-pole marked green
- Suitable for mounting on ferrous material



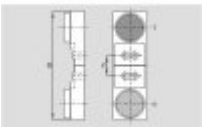
101057533 - BP 11 S

- Al-metal housing
- S-pole marked red
- Suitable for mounting on ferrous material



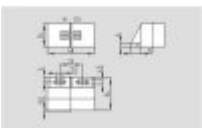
101059923 - BP 11 N

- Al-metal housing
- N-pole marked green
- Suitable for mounting on ferrous material



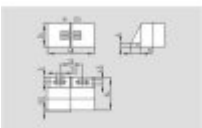
101059922 - BP 11

- Al-metal housing
- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material



101057521 - BP 31 S

- thermoplastic enclosure
- S-pole marked red
- Suitable for mounting on ferrous material with a distance of 20 mm

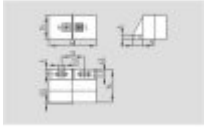


101057520 - BP 31 N

- thermoplastic enclosure
- N-pole marked green
- Suitable for mounting on ferrous material with a distance of 20 mm

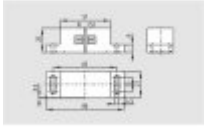
101057530 - BP 31

- thermoplastic enclosure
 - S-pole marked red
 - N-pole marked green
 - Suitable for mounting on ferrous material with a distance of 20 mm
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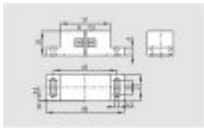
101057541 - BP 20 S

- Al-metal housing
- S-pole marked red
- Suitable for mounting on ferrous material with a distance of 20 mm



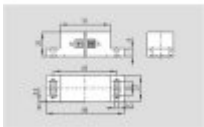
101057538 - BP 20 N

- Al-metal housing
- N-pole marked green
- Suitable for mounting on ferrous material with a distance of 20 mm



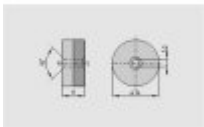
101057549 - BP 20

- Al-metal housing
- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material with a distance of 20 mm



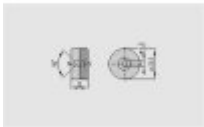
101057553 - BP 34

- thermoplastic enclosure
- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material with a distance of 25 mm



101060163 - BP 15

- thermoplastic enclosure
- N-pole marked green
- S-pole marked red
- Suitable for mounting on ferrous material with a distance of 18 mm



101057531 - BP 10

- Unenclosed
- Colour coding of poles by labels



