

## Datasheet - BN 65-10Z/V

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
- Long life
- Actuation from front
- 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/V
Article number	101055824
EAN code	4030661009797

### Approval

Approval



### 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 10S, 2 x BP 10S, BP 15S, BP 34S, BP 20S, BP 31S, BP 11S, 2 x BP 11S, BP 12S, 2 x BP 12S, BP 21S, 2 x BP 21S, BP 22S, 2 x BP 22S, BE

- Lift switchgear

20S

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

## Mechanical data

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Design of electrical connection	Cable
Cable length	1 m
Conductors	2 x 0,75 mm <sup>2</sup>
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	front side
Switch distance S <sub>n</sub>	5 mm ... 55 mm BP 10S = 5 mm 2 x BP 10S = 10 mm BP 15S = 6 mm BP 34S = 20 mm BP 20S = 15 mm BP 31S = 15 mm BP 11S = 5 mm 2 x BP 11S = 15 mm BP 12S = 10 mm 2 x BP 12S = 25 mm BP 21S = 30 mm 2 x BP 21S = 20 ... 55 mm BP 22S = 25 mm 2 x BP 22S = 15 ... 55 mm BE 20S = 6 mm
- notice	Actuating distance up to 55 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
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

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

## Electrical data

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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 VA / 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

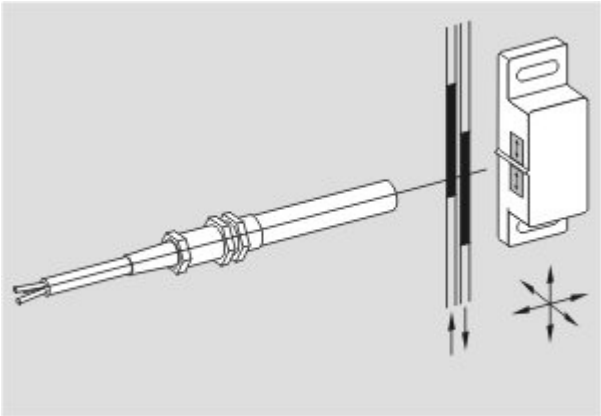
notice

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.	
notice	The switch is to be mounted on iron with a non-magnetic layer of at least 20 mm.






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

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### 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

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**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

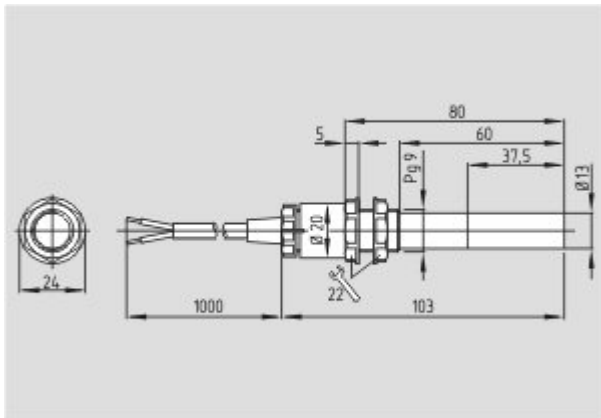
Code: s\_bnsp05

**notice - Switch distance** (es) 38 kB, 07.08.2009

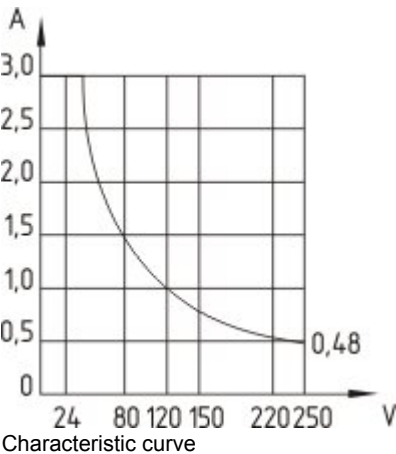
Code: s\_bnsp09

## Images

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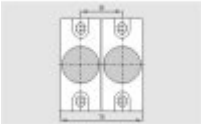
Dimensional drawing (basic component)



Characteristic curve

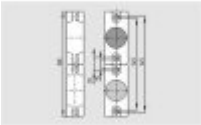
## System components

### Actuator



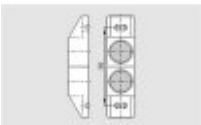
#### 101057546 - BP 2x22/2 N(S)

- 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

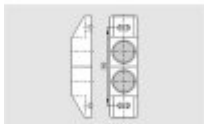


#### 101059927 - BP 2x21 S

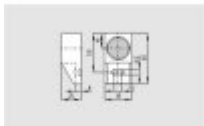
- Al-metal housing
- S-pole marked red
- Suitable for mounting on ferrous material

#### 101059928 - BP 2x21 N

- Al-metal housing

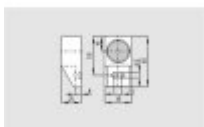


- N-pole marked green
- Suitable for mounting on ferrous material



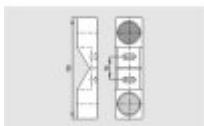
**101057534 - BP 21 S**

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



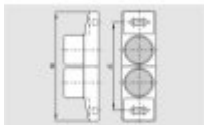
**101057536 - BP 21 N**

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



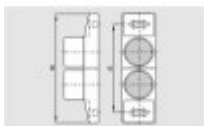
**101059921 - BP 21**

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



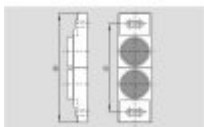
**101059926 - BP 2x12 S**

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



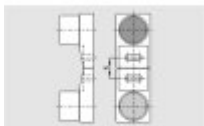
**101059925 - BP 2x12 N**

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



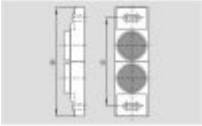
**101059917 - BP 12 N**

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



**101059916 - BP 12**

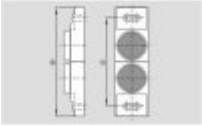
- Al-metal housing
- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material



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**101059930 - BP 2x11 S**

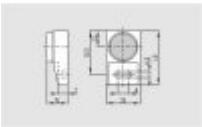
- Al-metal housing
- S-pole marked red
- Suitable for mounting on ferrous material



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**101059929 - BP 2x11 N**

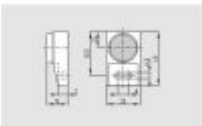
- Al-metal housing
- N-pole marked green
- Suitable for mounting on ferrous material



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**101057533 - BP 11 S**

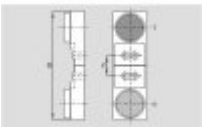
- Al-metal housing
- S-pole marked red
- Suitable for mounting on ferrous material



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**101059923 - BP 11 N**

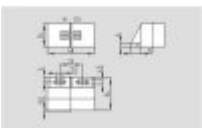
- Al-metal housing
- N-pole marked green
- Suitable for mounting on ferrous material



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**101059922 - BP 11**

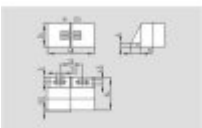
- Al-metal housing
- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material



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**101057521 - BP 31 S**

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



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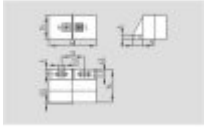
**101057520 - BP 31 N**

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

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**101057530 - BP 31**

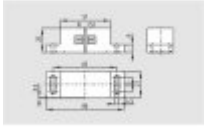
- thermoplastic enclosure
- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material with a distance of 20 mm



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**101057541 - BP 20 S**

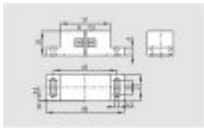
- Al-metal housing
- S-pole marked red
- Suitable for mounting on ferrous material with a distance of 20 mm



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**101057538 - BP 20 N**

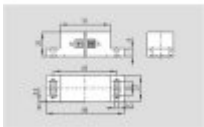
- Al-metal housing
- N-pole marked green
- Suitable for mounting on ferrous material with a distance of 20 mm



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**101057549 - BP 20**

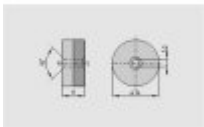
- Al-metal housing
- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material with a distance of 20 mm



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**101057553 - BP 34**

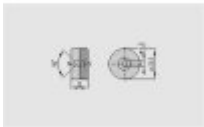
- thermoplastic enclosure
- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material with a distance of 25 mm



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**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



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**101057531 - BP 10**

- Unenclosed
- Colour coding of poles by labels





