

Datasheet - BN 65-RZ

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 side
- 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-RZ
Article number	101055800
EAN code	4030661009490
eCl@ss	27-27-01-04

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 10N. BP 10S. 2 x BP 10N. 2 x BP 10S. BP 15N. BP 15S. 2 x BP

- Lift switchgear

15/2N, 2 x BP 15/2S, BP 34N, BP 34S, BP 20N, BP 20S, BP 31N, BP 31S, BP 11N, BP 11S, 2 x BP 11N, 2 x BP 11S, BP 12N, BP 12S, 2 x BP 12N, 2 x BP 12S, BP 21N, BP 21S, 2 x BP 21N, 2 x BP 21S, BE 20N, BE 20S

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	1.000.000.000 operations
Electrical lifetime	1.000.000 ... 1.000.000.000 operations
Switching frequency	max. 300/s
Actuating planes	Actuation from side
Switch distance S _n	15 mm ... 60 mm BP 10N = 15 mm BP 10S = 15 mm 2 x BP 10N = 20 mm 2 x BP 10S = 20 mm BP 15N = 17 mm BP 15S = 17 mm 2 x BP 15/2N = 22 mm 2 x BP 15/2S = 22 mm BP 34N = 10 ... 30 mm BP 34S = 15 ... 30 mm BP 20N = 25 mm BP 20S = 25 mm BP 31N = 25 mm BP 31S = 25 mm BP 11N = 15 mm BP 11S = 15 mm 2 x BP 11N = 25 mm 2 x BP 11S = 25 mm BP 12N = 20 mm BP 12S = 20 mm 2 x BP 12N = 10 ... 30 mm 2 x BP 12S = 10 ... 30 mm BP 21N = 15 ... 45 mm BP 21S = 15 ... 45 mm 2 x BP 21N = 20 ... 60 mm 2 x BP 21S = 20 ... 60 mm BE 20N = 20 mm BE 20S = 20 mm
- notice	Actuating distance up to 60 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
resistance 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)	Yes
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	bistable contact
Number of snap-in contacts	1
Switching time - Close	0,3 ms ... 1.5 ms
Switching time - Open	max. 0,5 ms
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

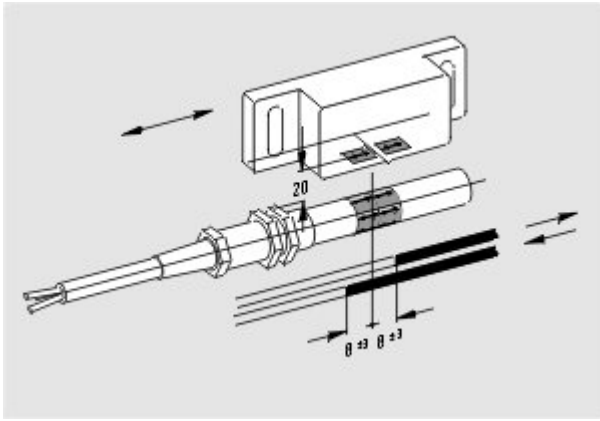
notice

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.

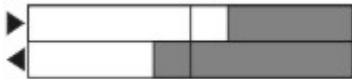
Diagram








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

Ordering suffix

The applicable ordering suffix is added at the end of the part number of the safety switch.

Order example: BN 65-RZ-2M

...-2M

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_bnbsp01

notice - Switch distance (nl) 39 kB, 07.08.2009

Code: s_bnbsp04

notice - Switch distance (fr) 41 kB, 07.08.2009

Code: s_bnbsp03

notice - Switch distance (pt) 39 kB, 07.08.2009

Code: s_bnbsp10

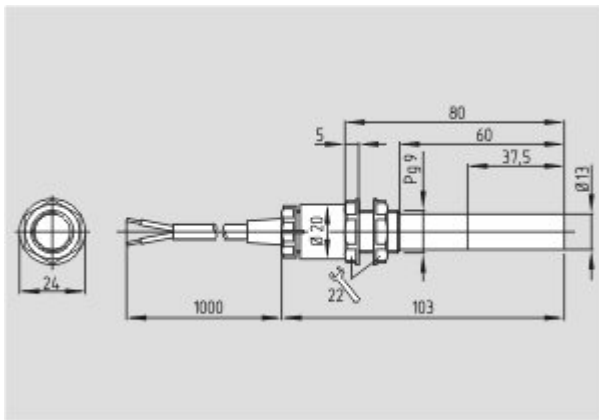
notice - Switch distance (it) 40 kB, 07.08.2009

Code: s_bnbsp05

notice - Switch distance (es) 38 kB, 07.08.2009

Code: s_bnbsp09

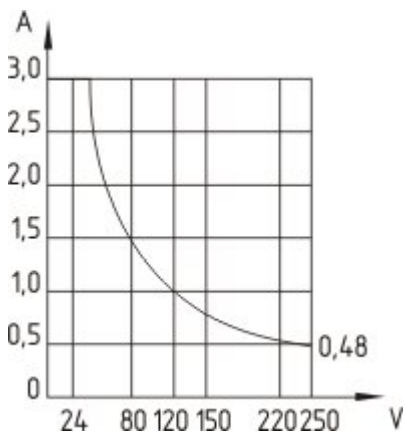
Images



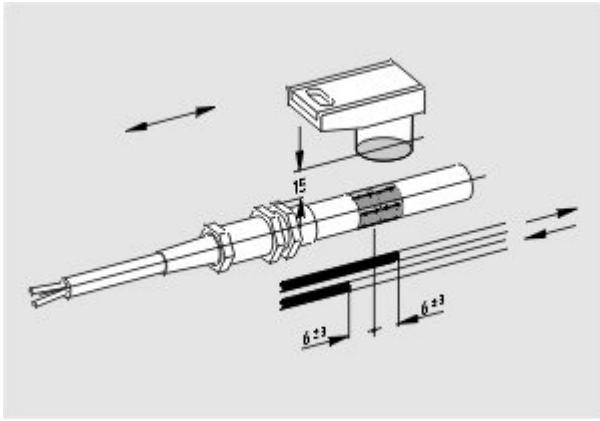
Dimensional drawing (basic component)



Switch travel diagram



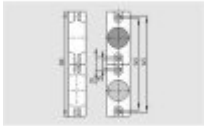
Characteristic curve



Diagram

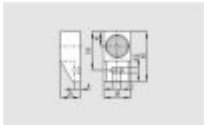
System components

Actuator



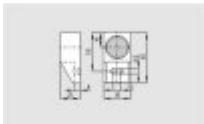
101057432 - BP 22 N (S)

- 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



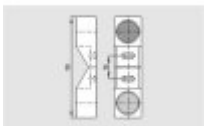
101057534 - BP 21 S

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



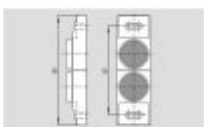
101057536 - BP 21 N

- 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



101059917 - BP 12 N

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

101059916 - BP 12

- Al-metal housing

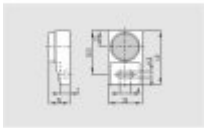


- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material



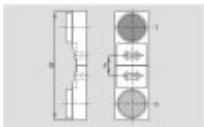
101057533 - BP 11 S

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



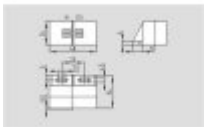
101059923 - BP 11 N

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



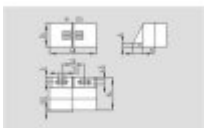
101059922 - BP 11

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



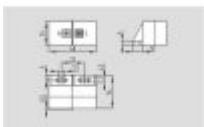
101057521 - BP 31 S

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



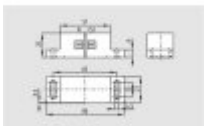
101057520 - BP 31 N

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



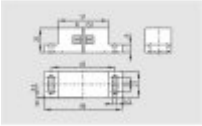
101057530 - BP 31

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

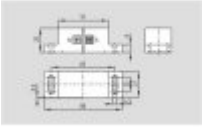


101057541 - BP 20 S

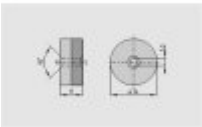
- Al-metal housing
- S-pole marked red
- Suitable for mounting on ferrous material with a distance of 20 mm

**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

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

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