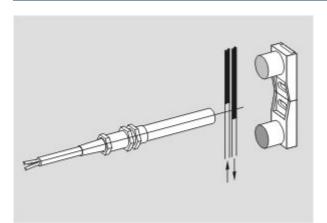
20.08.2014

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## Datasheet - BN 65-RZ/V

Magnetic reed switch / BN 65

## Preferred typ



- 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

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- Construction form Ø 13 mm
- Thermoplastic enclosure
- Actuating distance up to 60 mm depending on actuating magnet and version
- with central mounting

(Minor differences between the printed image and the original product may exist!)  $\label{eq:printed}$ 

## **Ordering details**

Product type description		
Article number		
EAN code		

BN 65-RZ/V 101055838 4030661009933

#### Approval

Approval



### **Global Properties**

Product name	BN 65
Standards	-
Compliance with the Directives (Y/N) $C \epsilon$	Yes
suitable for elevators (Y/N)	Yes
Mounting	central with threated 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	2 x BP 10, BP 34, BP 20,BP 31, BP 11, BP 12, BP 21, BP 22N, BP 22S, BE 20
- Lift switchgear	BP 10, 2 x BP 10, BP 15, BP 34

#### **Mechanical data**

Design of electrical connection	Cable
Cable length	1 m
Conductors	2 x 0,75 mm²
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. 200/s
Actuating planes	front side
Switch distance Sn	3 mm 45 mm 2 x BP 10 = 3 mm BP 34 = 15 mm BP 20 = 10 mm BP 31 = 10 mm BP 11 = 15 mm BP 12 = 20 mm BP 21 = 45 mm BP 22N = 35 mm BP 22S = 35 mm BE 20 = 10 mm
- notice	Actuating distance up to 45 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	15 g, on sine wave oscillation
resistant to vibration	15 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 VA / W

Design of control output	Reed contakts
LED switching conditions display	
LED switching conditions display (Y/N)	No
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

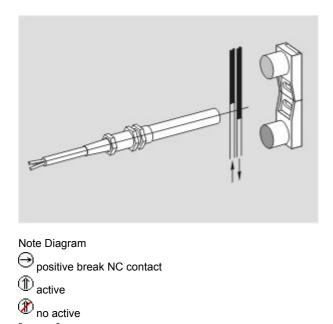
The opening and closing functions depend on the direction of actuation, the actuating magnets and the polarity of the actuating magnets. When the switches and actuators come together, the colours must coincide: Red (S) to red (S) and green (N) to green (N). This does not apply to the bistable contact. notice The switch is to be mounted on iron with a non-magnetic layer of

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

## Included in delivery

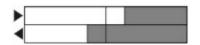
Actuators must be ordered separately.

### Diagram



•----•• Normally-open contact

o------o Normally-closed contact



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 <b>N</b> 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

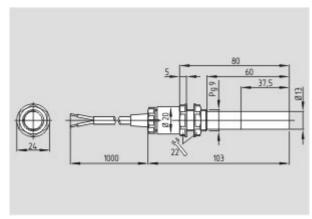
notice - Switch distance (fr) 41 kB, 07.08.2009 Code: s\_bnsp03

notice - Switch distance (pt) 39 kB, 07.08.2009 Code: s\_bnsp10

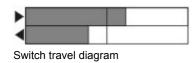
notice - Switch distance (it) 40 kB, 07.08.2009 Code: s\_bnsp05

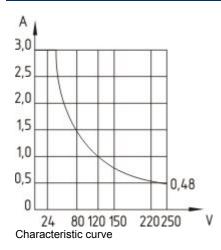
notice - Switch distance (es) 38 kB, 07.08.2009 Code: s\_bnsp09

#### Images



Dimensional drawing (basic component)





## System components

Α	C	tι	ıa	to	r

<ul> <li>101057546 - BP 2x22/2 N(S)</li> <li>Zn-metal housing</li> <li>N-pole marked green</li> <li>S-pole marked red</li> <li>33% magnetic force</li> <li>Suitable for mounting on ferrous material</li> <li>Can be used as N or S magnet</li> </ul>
<ul> <li>101057432 - BP 22 N (S)</li> <li>Zn-metal housing</li> <li>S-pole marked red</li> <li>N-pole marked green</li> <li>Suitable for mounting on ferrous material</li> <li>Can be used as N or S magnet</li> </ul>
<ul> <li>101059927 - BP 2x21 S</li> <li>Al-metal housing</li> <li>S-pole marked red</li> <li>Suitable for mounting on ferrous material</li> </ul>
<ul> <li>101059928 - BP 2x21 N</li> <li>Al-metal housing</li> <li>N-pole marked green</li> <li>Suitable for mounting on ferrous material</li> </ul>

## 101057534 - BP 21 S



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

<ul> <li>101057536 - BP 21 N</li> <li>Al-metal housing</li> <li>N-pole marked green</li> <li>Suitable for mounting on ferrous material</li> </ul>
<ul> <li>101059921 - BP 21</li> <li>Al-metal housing</li> <li>S-pole marked red</li> <li>N-pole marked green</li> <li>Suitable for mounting on ferrous material</li> </ul>
<ul> <li>101059926 - BP 2x12 S</li> <li>Al-metal housing</li> <li>S-pole marked red</li> <li>Suitable for mounting on ferrous material</li> </ul>
<ul> <li>101059925 - BP 2x12 N</li> <li>Al-metal housing</li> <li>N-pole marked green</li> <li>Suitable for mounting on ferrous material</li> </ul>
<ul> <li>101059917 - BP 12 N</li> <li>Al-metal housing</li> <li>N-pole marked green</li> <li>Suitable for mounting on ferrous material</li> </ul>
<ul> <li>101059916 - BP 12</li> <li>Al-metal housing</li> <li>S-pole marked red</li> <li>N-pole marked green</li> <li>Suitable for mounting on ferrous material</li> </ul>
<ul> <li>101059930 - BP 2x11 S</li> <li>Al-metal housing</li> <li>S-pole marked red</li> <li>Suitable for mounting on ferrous material</li> </ul>



#### 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

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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

#### 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











	<ul> <li>101057538 - BP 20 N</li> <li>Al-metal housing</li> <li>N-pole marked green</li> <li>Suitable for mounting on ferrous material with a distance of 20 mm</li> </ul>
	<ul> <li>101057549 - BP 20</li> <li>Al-metal housing</li> <li>S-pole marked red</li> <li>N-pole marked green</li> <li>Suitable for mounting on ferrous material with a distance of 20 mm</li> </ul>
	<ul> <li>101057553 - BP 34</li> <li>thermoplastic enclosure</li> <li>S-pole marked red</li> <li>N-pole marked green</li> <li>Suitable for mounting on ferrous material with a distance of 25 mm</li> </ul>
	<ul> <li>101060163 - BP 15</li> <li>thermoplastic enclosure</li> <li>N-pole marked green</li> <li>S-pole marked red</li> <li>Suitable for mounting on ferrous material with a distance of 18 mm</li> </ul>
6	<ul><li>101057531 - BP 10</li><li>Unenclosed</li><li>Colour coding of poles by lables</li></ul>

K.A. Schmersal GmbH & Co. KG, Möddinghofe 30, D-42279 Wuppertal The data and values have been checked throroughly. Technical modifications and errors excepted. Generiert am 20.08.2014 - 00:27:21h Kasbase 2.2.18.F DBI



101057538 - BP 20 N