13.02.2019

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# Datasheet - BN 65-10Z/V

Magnetic reed switch / BN 65

# Preferred typ



- · With pre-wired cable
- Non-contact principle
- Long life
- Actuation from front
- Actuating surface and direction of actuation marked by switch symbol

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- with bias magnet
- 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!)

### **Ordering details**

Product type description Article number EAN Code eCl@ss BN 65-10Z/V 101055824 4030661009797 27-27-01-04

### Approval

Approval



# **Global Properties**

Permanent light Standards	BN 65
Compliance with the Directives $(Y/N)$ C E	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
Recommended actuator	BP 10S, 2 x BP 10S, BP 15S, BP 34S, BP 20S, BP 31S, BP 11S, 2 x BP

- Lift switchgear

### Mechanical data

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

Design of electrical connection	Cable
Cable length Conductors	1
AWG-Number	2 x 0,75 18
Mechanical life	1.000.000 operations
Electrical lifetime	1.000.000 1.000.000.000 operations
Switching frequency	300/
Actuating planes	front side
Switch distance	5 55 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
	$2 \times BP 11S = 5 mm$
	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
- nouce	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 0,6
Latching (Y/N)	No
bias magnet (Y/N)	Yes
Tightening torque for nuts	22 300
Actuating speed	18
Switching point accuracy	± 0,25 mm

# **Ambient conditions**

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

### **Electrical data**

Number of shutters	1	
Number of openers	0	
Switching time - Close	0,3 - 1.5	
Switching time - Open	-	
Switch frequency	< 300	
Dielectric strength	> 600 (50 )	
Switching voltage	250	
Switching current	3 A	
Switching capacity	120 /	

# Outputs

Design of control output	Reed contakts	
LED switching conditions display		
LED switching conditions display (Y/N)	Νο	
ΑΤΕΧ		
Explosion protection categories for gases	None	
Explosion protected category for dusts	None	
Dimensions		
Dimensions of the sensor		
- Length of sensor	103	
- Diameter of sensor	13	

### 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.

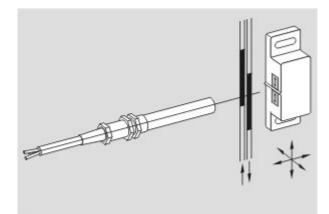
notice

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

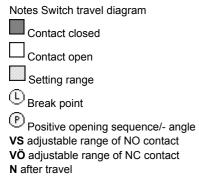


# Note Diagram

- $\ominus$  positive break NC contact
- $\textcircled{1}_{\text{active}}$
- no active
- •----• Normally-open contact
- •\_\_\_\_ Normally-closed contact

### Switch travel diagram





### Documents

Declaration of conformity (en) 186 kB, 12.07.2018 Code: \_\_bn\_p01\_en

Declaration of conformity (de) 102 kB, 08.06.2016 Code: \_\_bn\_p01

notice - Switch distance (de) 36 kB, 07.08.2009 Code: s\_bnsp01

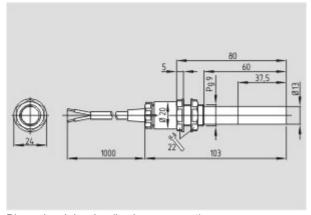
notice - Switch distance (nl) 39 kB, 07.08.2009 Code: s\_bnsp04

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

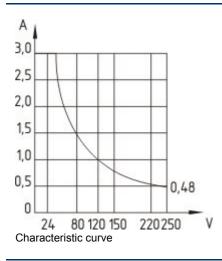
notice - Switch distance (pt) 39 kB, 07.08.2009 Code: s\_bnsp10 notice - Switch distance (it) 40 kB, 07.08.2009 Code: s\_bnsp05

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

#### Images



Dimensional drawing (basic component)



# System components

# Actuator



### 101057432 - BP 22 N (S)

- -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

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





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### 101057536 - BP 21 N

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

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

<ul> <li>101059921 - BP 21</li> <li>-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>101059917 - BP 12 N</li> <li>-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>-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>101057533 - BP 11 S</li> <li>-metal housing</li> <li>S-pole marked red</li> <li>Suitable for mounting on ferrous material</li> </ul>
<ul> <li>101059923 - BP 11 N</li> <li>-metal housing</li> <li>N-pole marked green</li> <li>Suitable for mounting on ferrous material</li> </ul>
<ul> <li>101059922 - BP 11</li> <li>-metal housing</li> <li>S-pole marked red</li> <li>N-pole marked green</li> <li>Suitable for mounting on ferrous material</li> </ul>
101057521 - BP 31 S • thermoplastic enclosure • S-pole marked red



### 101057520 - BP 31 N

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

<ul> <li>101057530 - BP 31</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 20 mm</li> </ul>
<ul> <li>101057541 - BP 20 S</li> <li>-metal housing</li> <li>S-pole marked red</li> <li>Suitable for mounting on ferrous material with a distance of 20 mm</li> </ul>
<ul> <li>101057538 - BP 20 N</li> <li>-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>-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>

# 101057531 - BP 10

- Unenclosed
- Colour coding of poles by lables



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 13.02.2019 - 13:12:16h Kasbase 3.3.0.F.64I