

## Datasheet - BN 650-01Z

Magnetic reed switch / BN 650



Preferred typ



- With pre-wired cable
- Non-contact principle
- Long life
- Actuation from side
- 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	BN 650-01Z
Article number	101187280
EAN Code	4030661335629
eCl@ss	27-27-01-04

### Approval

Approval	-
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### Global Properties

Permanent light	BN 650
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	LiYY
Housing construction form	cylinder smooth
Weight	65

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

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Design of electrical connection	Cable
Cable length	1
Conductors	2 x 0,25
AWG-Number	23
Mechanical life	100.000.000 operations
Electrical lifetime	1.000.000 ... 10.000.000 operations
Switching frequency	300/
Actuating planes	Actuation from side
Switch distance	5 ... 50 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 / 11
Resistance to vibration	10 ... 55 HZ, Amplitude 1 mm
Bounce duration	0,15
Latching (Y/N)	No
bias magnet (Y/N)	Yes
Tightening torque for nuts	-
Actuating speed	18
Switching point accuracy	± 0,25 mm

## Ambient conditions

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Ambient temperature	
- Min. environmental temperature	-25
- Max. environmental temperature	+70
Protection class	IP67 to IEC/EN 60529

## Electrical data

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Design of control element	Opener (NC)
Number of shutters	0
Number of openers	1
Switching time - Close	-
Switching time - Open	30

Switch frequency	< 300
Dielectric strength	580
Switching voltage	200
Switching current	1 A
Switching capacity	30 /

## Outputs

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Design of control output	
Design of control output	Reed kontakts

## LED switching conditions display

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LED switching conditions display (Y/N)	No
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## ATEX

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

## Dimensions

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

## notice

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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.

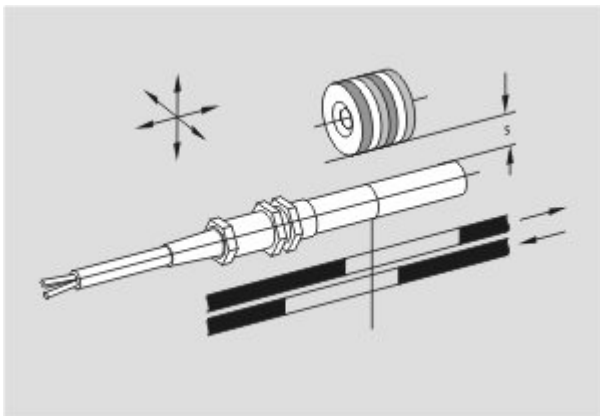
## Included in delivery

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Actuators must be ordered separately.


## Diagram


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


Note Diagram

-  positive break NC contact
-  active

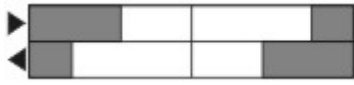
 no active

 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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**Mounting and wiring instructions** (de, en, fr) 99 kB, 11.07.2006

Code: m\_bn6p01

**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** (it) 27 kB, 12.04.2013

Code: s\_bn\_p01\_it

**notice - Switch distance** (fr) 29 kB, 12.04.2013

Code: s\_bn\_p01\_fr

**notice - Switch distance** (en) 27 kB, 12.04.2013

Code: s\_bn\_p01\_en

**notice - Switch distance** (de) 28 kB, 12.04.2013

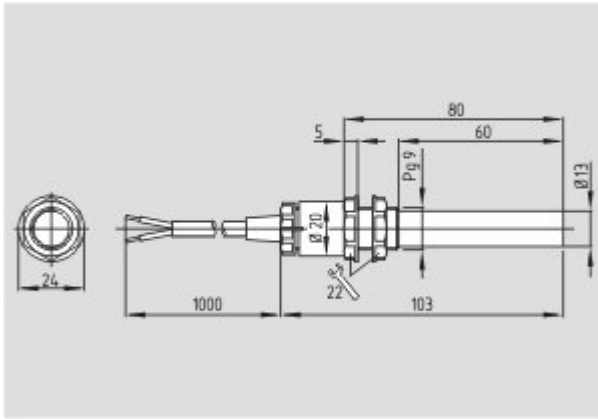
Code: s\_bn\_p01\_de

**notice - Switch distance** (es) 28 kB, 12.04.2013

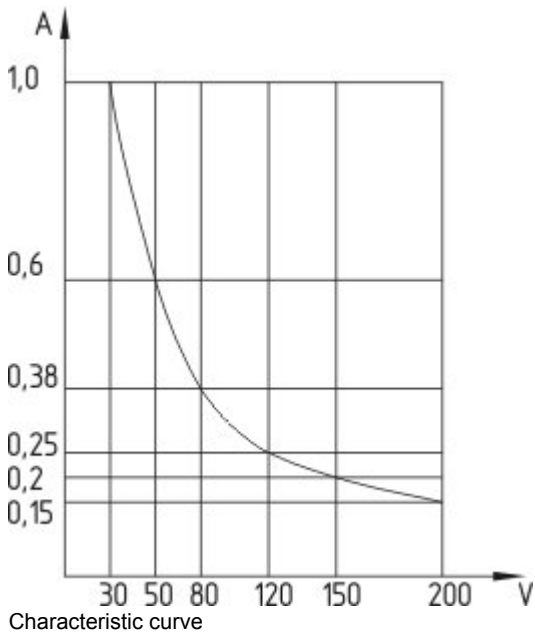
Code: s\_bn\_p01\_es

## Images

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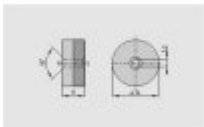
Dimensional drawing (basic component)



Characteristic curve

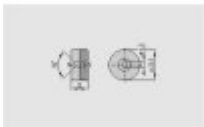
## System components

### Actuator



#### 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

#### 101060165 - BP 15/2

- Unenclosed
- Polarity stamped in
- 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 lables

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

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