

## Datasheet - BN 650-10Z

Magnetic reed switch / BN 650



☒ Preferred typ



(Minor differences between the printed image and the original product may exist!)

- With pre-wired cable
- Non-contact principle
- Actuation from side
- Long life
- 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


### Ordering details

Product type description	BN 650-10Z
Article number	101187273
EAN code	4030661335728

### Approval

Approval	-
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### Global Properties

Product name	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 g
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,

- Lift switchgear

BP 11, BP 12, BP 21

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 0,25 mm <sup>2</sup>
AWG-Number	23
Mechanical life	min. 100.000.000 operations
Electrical lifetime	1.000.000 ... 10.000.000 operations
Switching frequency	max. 300/s
Actuating planes	Actuation from side
Switch distance S <sub>n</sub>	5 mm ... 50 mm 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 g / 11 ms
Resistance to vibration	10 ... 55 Hz, Amplitude 1 mm
Bounce duration	0,15 ms
Latching (Y/N)	No
bias magnet (Y/N)	Yes
Tightening torque for nuts	-
Actuating speed	max. 18 m/s
Switching point accuracy	± 0,25 mm

## Ambient conditions

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

## Electrical data

Design of control element	Normally open contact (NO)
Number of shutters	1 piece
Number of openers	0 piece
Switching time - Close	0,35 ms
Switching time - Open	-
Switch frequency	< 300 Hz

Dielectric strength	580 V
Switching voltage	max. 200 VAC/DC
Switching current	max. 1 A
Switching capacity	max. 30 VA / W

## Outputs

Design of control output	
Design of control output	Reed kontakts

## 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

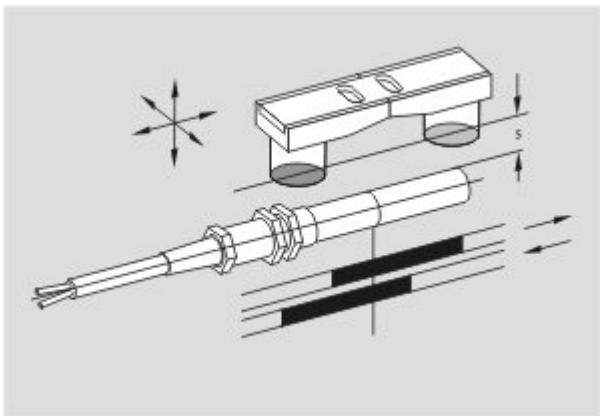
## notice

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



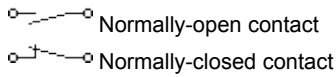
positive break NC contact



active



no active








## 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) 118 kB, 26.02.2014

Code: \_\_bn\_p01\_en

**Declaration of conformity** (de) 188 kB, 10.07.2012

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

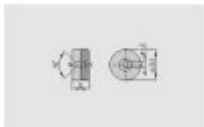
Code: s\_bn\_p01\_es

## Images

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Characteristic curve

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



- thermoplastic enclosure
- N-pole marked green
- S-pole marked red
- Suitable for mounting on ferrous material with a distance of 18 mm

- 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 labels

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

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Image

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