

## Datasheet - BN 120-10Z/1

Magnetic reed switch / BN 120



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

- Actuation from side
- Non-contact principle
- without bias magnet
- Long life
- Thermoplastic enclosure
- Actuating distance up to 60 mm depending on actuating magnet and version
- Design Ø 10.7 mm
- with central mounting
- With pre-wired cable

### Ordering details

Product type description	BN 120-10Z/1
Article number	BN 120-10Z/1
EAN Code	
eCl@ss	27-27-01-04

### Approval

Approval	-
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### Global Properties

Permanent light	BN 120
Standards	-
Compliance with the Directives (Y/N)	Yes
suitable for elevators (Y/N)	No
Mounting	central with threaded flange M12 x 1
Active principle	Magnetic drive
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic
- Material of the cable mantle	LiYY
Housing construction form	cylinder, thread
Weight	
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,

## Mechanical data

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Design of electrical connection	Cable
Cable length	1
Conductors	2 x 0,25
AWG-Number	23
Mechanical life	10.000.000 operations
Electrical lifetime	1.000.000 ... 10.000.000 operations
Actuating planes	Actuation from side
Active area	lateral
Switch distance	5 ... 50 BP 10 = 5 mm 2 x BP 10 = 17 mm BP 15 = 6 mm 2 x BP 15 = 17 mm 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
Type of actuation	Magnet
restistance to shock	30 / 11
Resistance to vibration	10 ... 55 HZ, Amplitude 1 mm
Latching (Y/N)	No
bias magnet (Y/N)	No
Tightening torque for nuts	90
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

## Electrical data

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Design of control element	Opener (NC)
Number of shutters	1
Number of openers	0
Voltage type	
Dielectric strength	580
Switching voltage	200
Switching current	1 A
Switching capacity	30 /

## Outputs

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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	71
- Diameter of sensor	10.7

## notice

The opening and closing functions depend on the direction of actuation, the actuating magnets and the polarity of the actuating magnets.

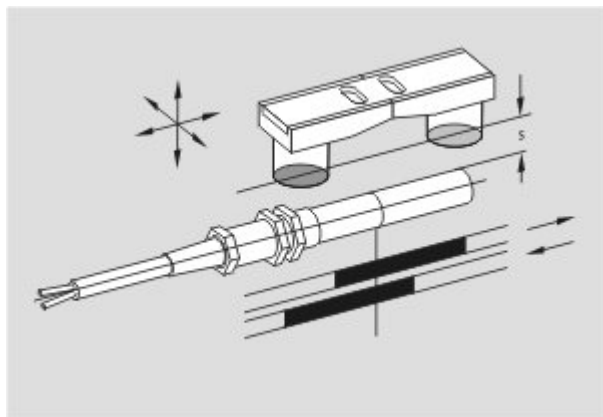
When the switches and actuators come together, the colours must coincide: Red (S) to red (S) and green (N) to green (N). This does not apply to the bistable contact.

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

- positive break NC contact
- active
- no active
- Normally-open contact
- Normally-closed contact

## Documents

**Mounting and wiring instructions** (de, en, fr) 103 kB, 03.08.2006

Code: m\_bn1p02

**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

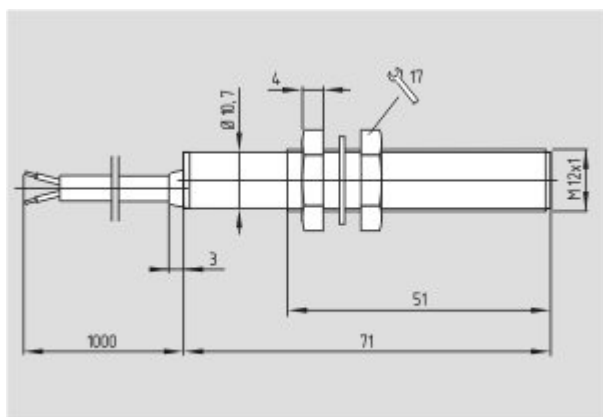
Code: s\_bn\_p01\_de

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

Code: s\_bn\_p01\_es

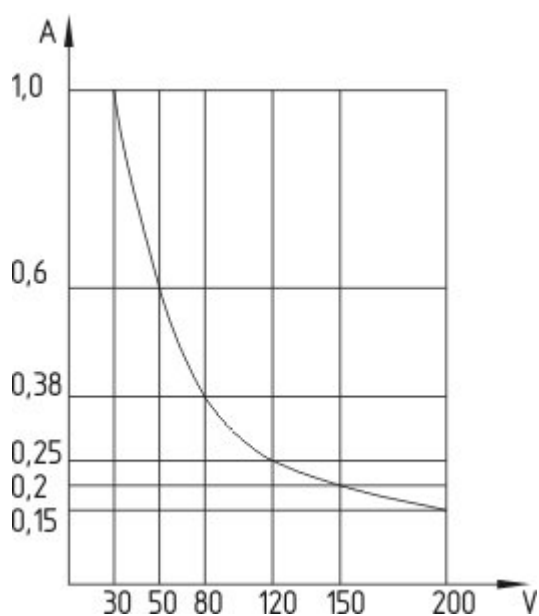
## Images

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Dimensional drawing (basic component)

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Characteristic curve

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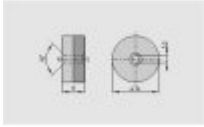
## System components

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### 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



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**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



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**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 labels

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

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