

## Datasheet - BN 120-01Z/V

Magnetic reed switch / BN 120

 Preferred typ

- Actuation from front
- Non-contact principle
- with 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

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


### Ordering details

Product type description	BN 120-01Z/V
Article number	101186842
EAN Code	4030661335391
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)	Yes
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	30

Recommended actuator	BP 10 S, 2 x BP 10 S, BP 15 S, BP 34 S, BP 20 S, BP 31 S, BP 11 S, 2 x BP 11 S, BP 12 S, 2 x BP 12 S, BP 21 S, 2 x BP 21 S, BP 22 S, 2 x BP 22 S, BE 20 S
- Lift switchgear	BP 10, 2 x BP 10, 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	10.000.000 operations
Electrical lifetime	1.000.000 ... 10.000.000 operations
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 x BP 11S = 15 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 20 S = 6 mm
- notice	Actuating distance up to 55 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	90
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	> 200
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

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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	71
- Diameter of sensor	10.7

## 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.

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

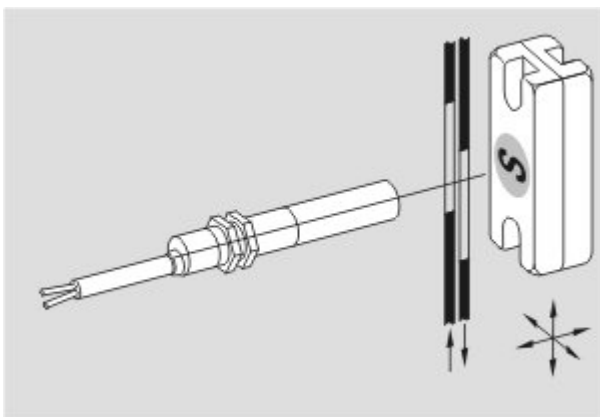
## Included in delivery

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

Actuators must be ordered separately.

## Diagram

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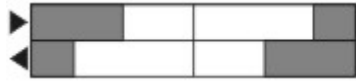


Note Diagram






-  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) 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

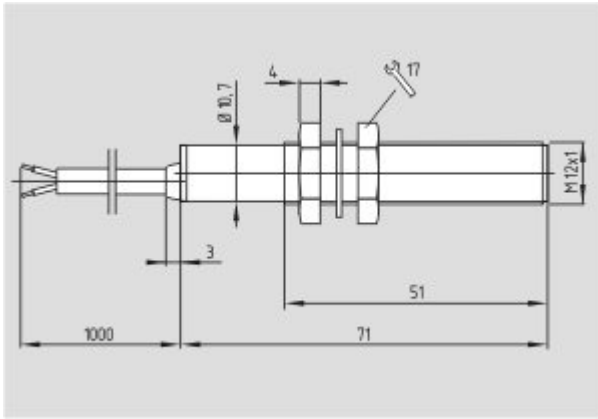
Code: s\_bn\_p01\_de

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

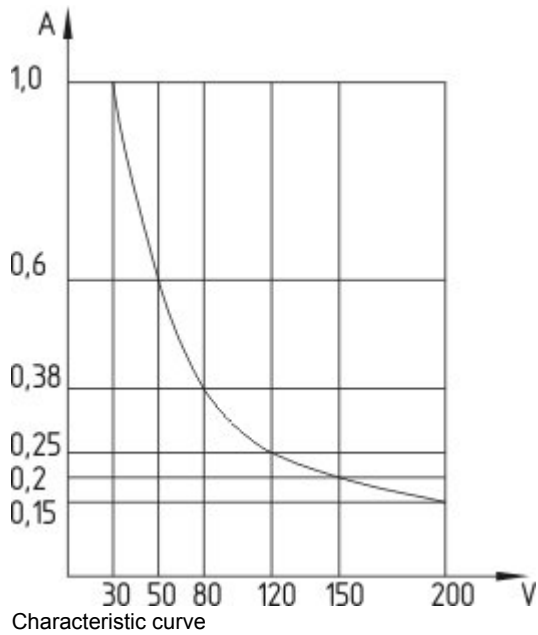
Code: s\_bn\_p01\_es

## Images

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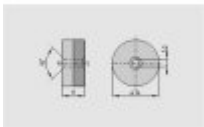
Dimensional drawing (basic component)



Characteristic curve

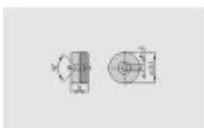
## System components

### 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 labels

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

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