

Datasheet - BN 120-10Z/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 120-10Z/V |
| Article number | 101186841 |
| EAN Code | 4030661335414 |
| eCl@ss | 27-27-01-04 |

Approval

| | |
|----------|---|
| Approval | - |
|----------|---|

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

| | |
|---------------------------------|--|
| 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

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

Electrical data

| | |
|---------------------------|----------------------------|
| Design of control element | Normally open contact (NO) |
| Number of shutters | 1 |
| Number of openers | 0 |

| | |
|------------------------|-------|
| Switching time - Close | 0,35 |
| Switching time - Open | - |
| Switch frequency | < 300 |
| Dielectric strength | > 200 |
| Switching voltage | 200 |
| Switching current | 1 A |
| Switching capacity | 30 / |

Outputs

| | |
|--------------------------|---------------|
| Design of control output | Reed kontakts |
|--------------------------|---------------|

LED switching conditions display

| | |
|--|----|
| LED switching conditions display (Y/N) | No |
|--|----|

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.

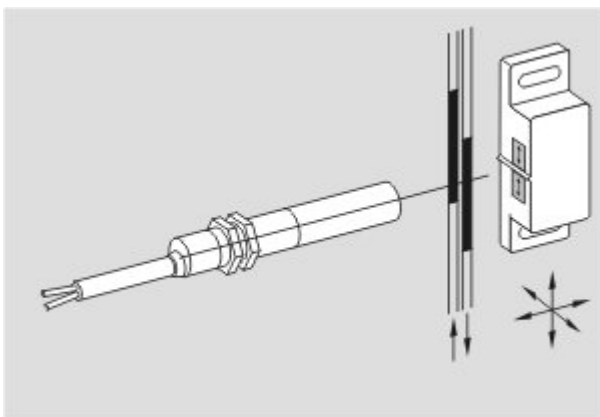
When the switches and actuators come together, the colours must coincide: Red (S) to red (S) and green (N) to green (N). This does not apply to the bistable contact.

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

Switch travel diagram



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

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

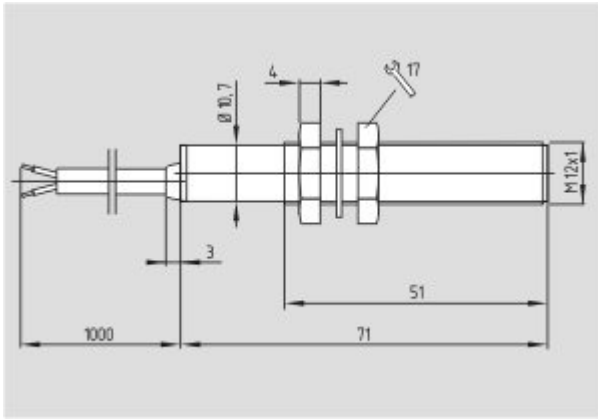
notice - Switch distance (de) 28 kB, 12.04.2013

Code: s_bn_p01_de

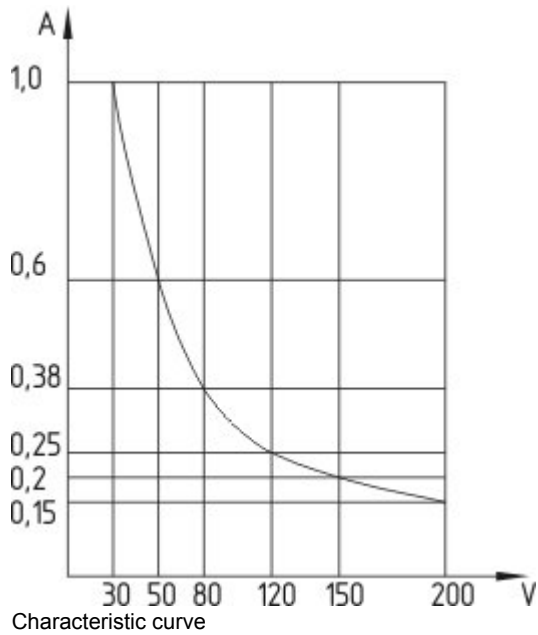
notice - Switch distance (es) 28 kB, 12.04.2013

Code: s_bn_p01_es

Images



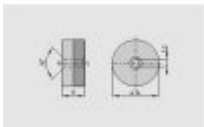
Dimensional drawing (basic component)



Characteristic curve

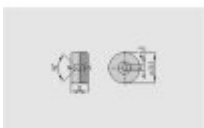
System components

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



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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