

Datasheet - BN 12-10Z/1

Magnetic reed switch / BN 12

☒ Preferred typ



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

- Non-contact principle
- Actuation from side
- without bias magnet
- Long life
- Metal 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 12-10Z/1 |
| Article number | BN 12-10Z/1 |
| EAN code | |

Approval

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

Global Properties

| | |
|--|---|
| Product name | BN 12 |
| 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 | Metal film |
| - 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

| | |
|---------------------------------|--|
| Design of electrical connection | Cable |
| Cable length | 1 m |
| Conductors | 2 x 0,25 mm ² |
| AWG-Number | 23 |
| Mechanical life | min. 10.000.000 operations |
| Electrical lifetime | 1.000.000 ... 10.000.000 operations |
| Actuating planes | Actuation from side |
| Active area | lateral |
| Switch distance S _n | 5 mm ... 50 mm 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 g / 11 ms |
| Resistance to vibration | 10 ... 55 Hz, Amplitude 1 mm |
| Latching (Y/N) | No |
| bias magnet (Y/N) | No |
| Tightening torque for nuts | max. 90 Ncm |
| Switching point accuracy | ± 0,25 mm |

Ambient conditions

| | |
|----------------------------------|--------|
| Ambient temperature | |
| - Min. environmental temperature | -25 °C |
| - Max. environmental temperature | +70 °C |
| Protection class | IP67 |

Electrical data

| | |
|---------------------------|-----------------|
| Design of control element | Opener (NC) |
| Number of shutters | 1 piece |
| Number of openers | 0 piece |
| Voltage type | VAC/DC |
| Switch frequency | |
| Dielectric strength | 580 |
| Switching voltage | max. 200 VAC/DC |
| Switching current | max. 1 A |
| Switching capacity | max. 30 VA / W |

Outputs

| | |
|--------------------------|---------------|
| Design of control output | Reed contacts |
|--------------------------|---------------|

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 mm |
| - Diameter of sensor | 10.7 mm |

notice

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

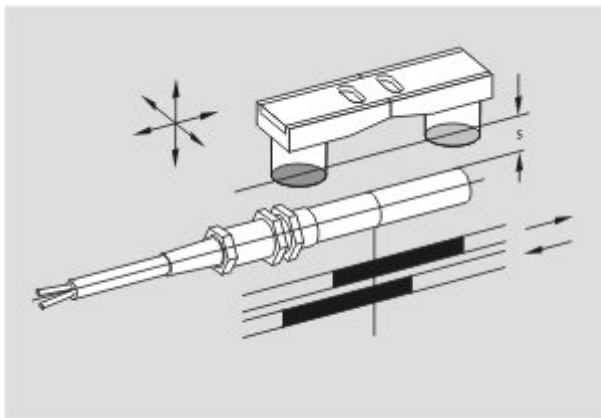
When the switches and actuators come together, the colours must coincide: Red (S) to red (S) and green (N) to green (N). This does not apply to the bistable contact.

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) 104 kB, 03.08.2006

Code: m_bn1p01

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

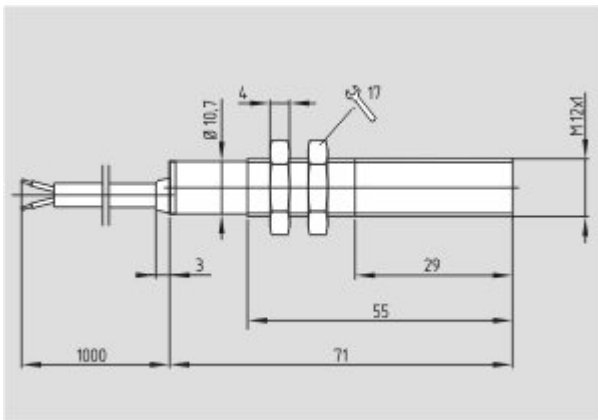
notice - Switch distance (de) 28 kB, 12.04.2013

Code: s_bn_p01_de

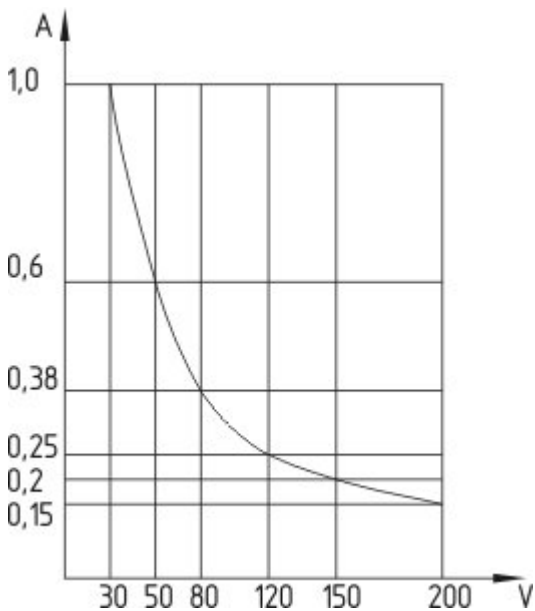
notice - Switch distance (es) 28 kB, 12.04.2013

Code: s_bn_p01_es

Images



Dimensional drawing (basic component)



Characteristic curve

System components

Actuator



- 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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Image

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et=sS