

Recommended actuator

BP 10N, BP 10S, 2 x BP 10N, 2 x BP 10S, BP 15N, BP 15S, 2 x BP 15/2N, 2 x BP 15/2S, BP 34N, BP 34S, BP 20N, BP 20S, BP 31N, BP 31S, BP 11N, BP 11S, 2 x BP 11N, 2 x BP 11S, BP 12N, BP 12S, 2 x BP 12N, 2 x BP 12S, BP 21 N, BP 21S, 2 x BP 21N, 2 x BP 21S, BE 20N, BE 20S

Mechanical data

| | |
|---------------------------------|--|
| Design of electrical connection | Screw connection |
| Mechanical life | 1.000.000.000 operations |
| Electrical lifetime | 1.000.000 ... 1.000.000.000 operations |
| Switching frequency | 300/ |
| Actuating planes | Actuation from side |
| Active area | lateral |
| Switch distance | 5 ... 50 BP 10N = 5 mm BP 10S = 5 mm 2 x BP 10N = 10 mm 2 x BP 10S = 10 mm BP 15N = 7 mm BP 15S = 7 mm 2 x BP 15/2N = 15 mm 2 x BP 15/2S = 15 mm BP 34N = 10 ... 25 mm BP 34S = 10 ... 25 mm BP 20N = 15 mm BP 20S = 15 mm BP 31N = 15 mm BP 31S = 15 mm BP 11N = 5 mm BP 11S = 5 mm 2 x BP 11N = 15 mm 2 x BP 11S = 15 mm BP 12N = 10 mm BP 12S = 10 mm 2 x BP 12N = 5 ... 20 mm 2 x BP 12S = 5 ... 20 mm BP 21 N = 10 ... 35 mm BP 21 S = 10 ... 35 mm 2 x BP 21N = 15 ... 50 mm 2 x BP 21S = 15 ... 50 mm BE 20N = 10 mm BE 20S = 10 mm |
| - notice | Actuating distance up to 50 mm depending on actuating magnet and version |
| Type of actuation | Magnet |
| resistance to shock | - |
| resistant to vibration | 50 g, on sine wave oscillation |
| Bounce duration | 0,3 ... 0,6 |
| Latching (Y/N) | No |
| bias magnet (Y/N) | Yes |
| Actuating speed | 18 |
| Switching point accuracy | ± 0,25 mm |

Ambient conditions

| | |
|----------------------------------|------|
| Ambient temperature | |
| - Min. environmental temperature | -25 |
| - Max. environmental temperature | +90 |
| Protection class | IP67 |

Electrical data

| | |
|--------------------------------|--|
| Design of control element | bistable contact, Opener (NC) / Normally open contact (NO) |
| Number of snap-in contacts | 2 |
| Rated insulation voltage U_i | 32 VDC |
| Operating current I_e | 0,7 A |
| Switching time - Close | 0,3 - 1.5 |
| Switching time - Open | 0,5 |
| Voltage type | |
| Dielectric strength | > 600 (50) |
| Switching voltage | 250 |
| Switching current | 3 A |
| Switching capacity | 120 / |

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 | |
| - Width of sensor | 104 |
| - Height of sensor | 52 |
| - Length of sensor | 47 |

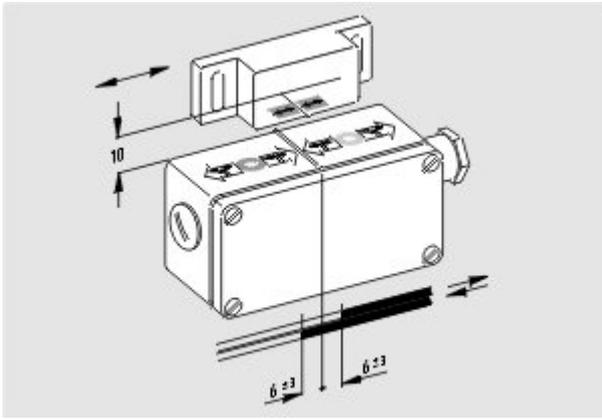
notice

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).

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

Declaration of conformity (en) 166 kB, 09.05.2014

Code: __bn_p01_en

Declaration of conformity (de) 102 kB, 08.06.2016

Code: __bn_p01

notice - Switch distance (de) 36 kB, 07.08.2009

Code: s_bnbsp01

notice - Switch distance (nl) 39 kB, 07.08.2009

Code: s_bnbsp04

notice - Switch distance (fr) 41 kB, 07.08.2009

Code: s_bnbsp03

notice - Switch distance (pt) 39 kB, 07.08.2009

Code: s_bnbsp10

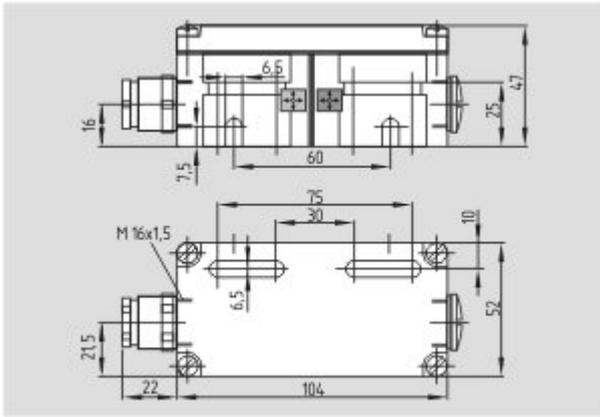
notice - Switch distance (it) 40 kB, 07.08.2009

Code: s_bnbsp05

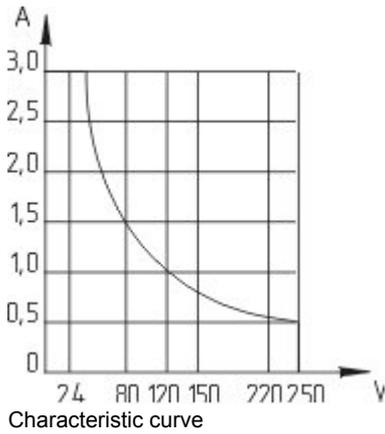
notice - Switch distance (es) 38 kB, 07.08.2009

Code: s_bnbsp09

Images



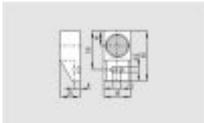
Dimensional drawing (basic component)



Characteristic curve

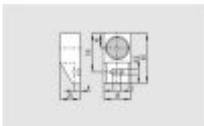
System components

Actuator



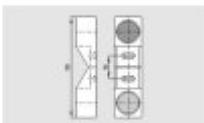
101057534 - BP 21 S

- -metal housing
- S-pole marked red
- Suitable for mounting on ferrous material



101057536 - BP 21 N

- -metal housing
- N-pole marked green
- Suitable for mounting on ferrous material

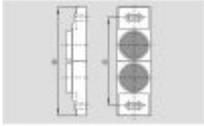


101059921 - BP 21

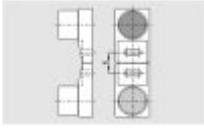
- -metal housing
- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material

101059917 - BP 12 N

- -metal housing
- N-pole marked green

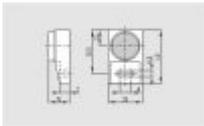


- Suitable for mounting on ferrous material



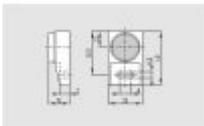
101059916 - BP 12

- -metal housing
- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material



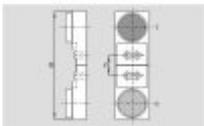
101057533 - BP 11 S

- -metal housing
- S-pole marked red
- Suitable for mounting on ferrous material



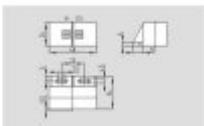
101059923 - BP 11 N

- -metal housing
- N-pole marked green
- Suitable for mounting on ferrous material



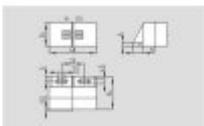
101059922 - BP 11

- -metal housing
- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material



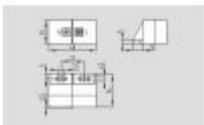
101057521 - BP 31 S

- thermoplastic enclosure
- S-pole marked red
- Suitable for mounting on ferrous material with a distance of 20 mm



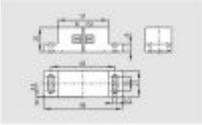
101057520 - BP 31 N

- thermoplastic enclosure
- N-pole marked green
- Suitable for mounting on ferrous material with a distance of 20 mm



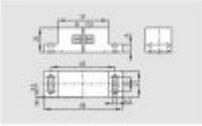
101057530 - BP 31

- thermoplastic enclosure
- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material with a distance of 20 mm



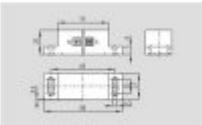
101057541 - BP 20 S

- -metal housing
- S-pole marked red
- Suitable for mounting on ferrous material with a distance of 20 mm



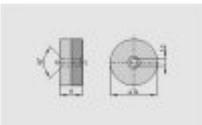
101057538 - BP 20 N

- -metal housing
- N-pole marked green
- Suitable for mounting on ferrous material with a distance of 20 mm



101057549 - BP 20

- -metal housing
- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material with a distance of 20 mm



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



101060165 - BP 15/2

- Unenclosed
- Polarity stamped in
- Suitable for mounting on ferrous material with a distance of 18 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



101057531 - BP 10

- Unenclosed
- Colour coding of poles by labels