

Datasheet - BN 325-R

Magnetic reed switch / BN 325



Preferred typ



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

- Flat plug-in connector and 1 shielding plate
- Non-contact principle
- Actuation from front
- 1 Reed kontakts
- Long life
- Actuating surface and direction of actuation marked by switch symbol
- 85 mm x 26 mm x 24 mm
- Thermoplastic enclosure
- Spade connector


Ordering details

| | |
|--------------------------|---------------|
| Product type description | BN 325-R |
| Article number | 101147009 |
| EAN code | 4030661140933 |

Approval

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

Global Properties

| | |
|--|--|
| Product name | BN 325 |
| Standards | - |
| Compliance with the Directives (Y/N)  | Yes |
| suitable for elevators (Y/N) | Yes |
| Mounting | rear with 2 Threaded bolt |
| Active principle | Magnetic drive |
| Materials | |
| - Material of the housings | Plastic, glass-fibre reinforced thermoplastic |
| Housing construction form | rectangular, flat |
| Weight | 35 g |
| Recommended actuator | BP 10 N, BP 10 S, 2 x BP 10 N, 2 x BP 10 S, BP 15 N, BP 15 S, 2 x BP 15/2 N, 2 x BP 15/2 S, BP 34 N, BP 34 S, BP 20 N, BP 20 S, BP 31 N, BP 31 S, BP 11 N, BP 11 S, 2 x BP 11 N, 2 x BP 11 S, BP 12 N, BP 12 S, 2 x BP 12 N, 2 x BP 12 S, BP 21 N, BP 21 S, 2 x BP 21 N, 2 x BP 21 S, BE 20, BE 20 N(S) ST 24VDC, BE 20 N(S) 48VDC |
| - Lift switchgear | BP 10, 2 x BP 10, 2 x BP 15/2, BP 15, BP 34 |

Mechanical data

| | |
|---------------------------------|---|
| Design of electrical connection | Flat plug-in connector 4.8 mm and 1 shielding plate |
| Mechanical life | 1.000.000.e+9 operations |
| Electrical lifetime | 1.000.000 ... 1.000.000.e+9 operations |
| Actuating planes | front side |
| Switch distance S _n | 5 mm ... 55 mm |

BP 10N = 10 mm
 BP 10S = 10 mm
 2 x BP 10N = 15 mm
 2 x BP 10S = 15 mm
 BP 15N = 12 mm
 BP 15S = 12 mm
 2 x BP 15/2N = 17 mm
 2 x BP 15/2S = 17mm
 BP 34N = 10 ... 25mm
 BP 34S = 10 ... 25 mm
 BP 20N = 5 ... 20 mm
 BP 20S = 5 ... 20 mm
 BP 31N = 5 ... 20 mm
 BP 31S = 5 ... 20 mm
 BP 11N = 10 mm
 BP 11S = 10 mm
 2 x BP 11N = 20 mm
 2 x BP 11S = 20 mm
 BP 12N = 15 mm
 BP 12S = 15 mm
 2 x BP 12N = 10 ... 25 mm
 2 x BP 12S = 10 ... 25 mm
 BP 21N = 15 ... 40 mm
 BP 21S = 15 ... 40 mm
 2 x BP 21N = 20 ... 55 mm
 2 x BP 21S = 20 ... 55 mm
 BE 20 = 20 mm
 BE 20N = 15 mm
 BE 20S = 15 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 |
| resistance to shock | 50 g / 11 ms |
| Resistance to vibration | 10 ... 55 Hz, Amplitude 1 mm |
| Bounce duration | 0,3 ms ... 0,6 ms |
| Latching (Y/N) | Yes |
| Actuating speed | max. 18 m/s |
| Switching point accuracy | ± 0,25 mm |

Ambient conditions

| | |
|----------------------------------|--------|
| Ambient temperature | |
| - Min. environmental temperature | -25 °C |
| - Max. environmental temperature | +70 °C |
| Protection class | IP40 |

Electrical data

| | |
|----------------------------|-------------------|
| Design of control element | bistable contact |
| Number of snap-in contacts | 1 |
| Switching time - Close | max. 1.5 ms |
| Switching time - Open | max. 0,5 ms |
| Switch frequency | < 300 Hz |
| Dielectric strength | > 600 VAC (50 Hz) |
| Switching voltage | max. 250 VAC |
| Switching current | max. 3 A |

Switching capacity max. 120 VA

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 | 85 mm |
| - Height of sensor | 26 mm |
| - Length of sensor | 24 mm |

notice

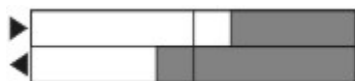
The opening and closing functions depend on the direction of actuation, the actuating magnets and the polarity of the actuating magnets.

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.

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

Operating instructions and Declaration of conformity (fr) 344 kB, 28.04.2014

Code: mrl_bn325-r-g_fr

Operating instructions and Declaration of conformity (jp) 292 kB, 12.06.2014

Code: mrl_bn325-r-g_jp

Operating instructions and Declaration of conformity (pl) 381 kB, 24.03.2014

Code: mrl_bn325-r-g_pl

Operating instructions and Declaration of conformity (it) 192 kB, 19.02.2014

Code: mrl_bn325-r-g_it

Operating instructions and Declaration of conformity (nl) 337 kB, 24.03.2014

Code: mrl_bn325-r-g_nl

Mounting and wiring instructions (de, en, fr) 61 kB, 13.06.2008

Code: m_n30p01

Declaration of conformity (en) 118 kB, 26.02.2014

Code: __bn_p01_en

Declaration of conformity (de) 188 kB, 10.07.2012

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 (en) 42 kB, 07.08.2009

Code: s_bnbsp02

notice - Switch distance (fr) 41 kB, 07.08.2009

Code: s_bnbsp03

notice - Switch distance (pt) 39 kB, 07.08.2009

Code: s_bnbsp10

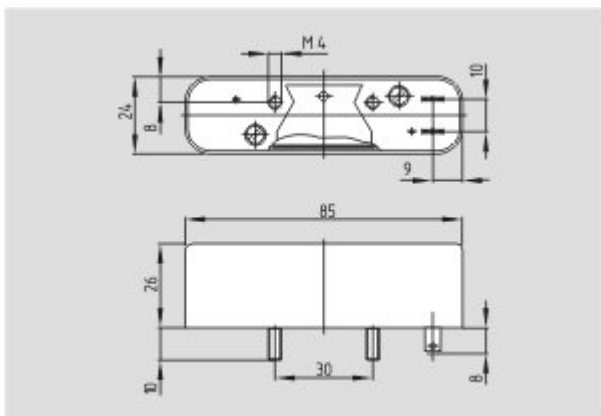
notice - Switch distance (it) 40 kB, 07.08.2009

Code: s_bnbsp05

notice - Switch distance (es) 38 kB, 07.08.2009

Code: s_bnbsp09

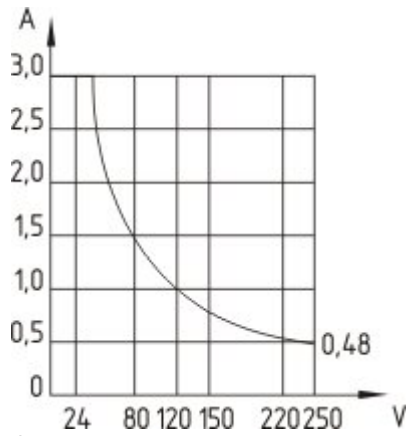
Images



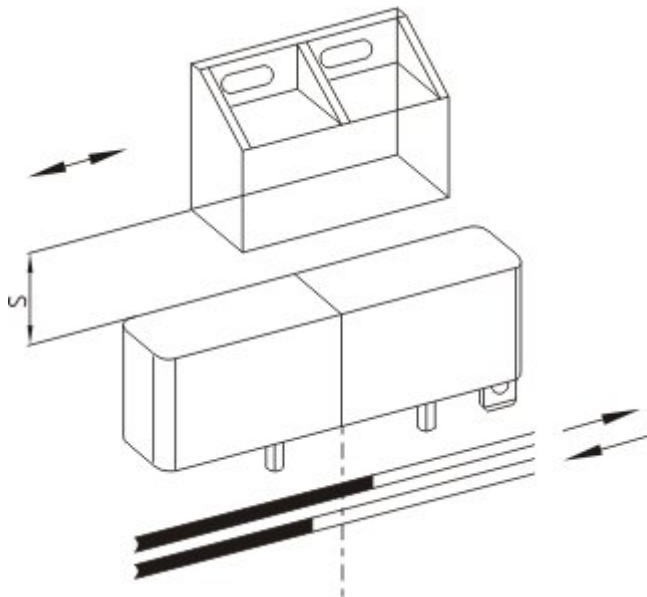
Dimensional drawing (basic component)



Switch travel diagram



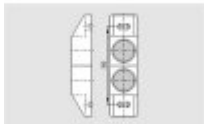
Characteristic curve



Diagram

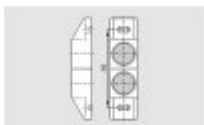
System components

Actuator



10105927 - BP 2x21 S

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



10105928 - BP 2x21 N

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



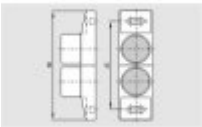
101057534 - BP 21 S

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



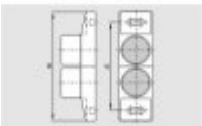
101057536 - BP 21 N

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



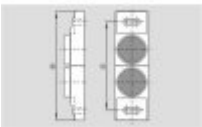
101059926 - BP 2x12 S

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



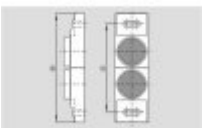
101059925 - BP 2x12 N

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



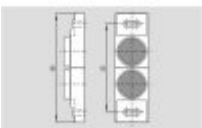
101059917 - BP 12 N

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



101059930 - BP 2x11 S

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



101059929 - BP 2x11 N

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

101057533 - BP 11 S

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



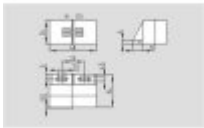
101059923 - BP 11 N

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



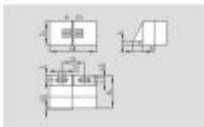
101057521 - BP 31 S

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



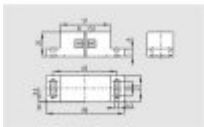
101057520 - BP 31 N

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



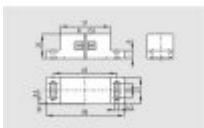
101057541 - BP 20 S

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



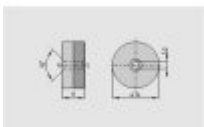
101057538 - BP 20 N

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



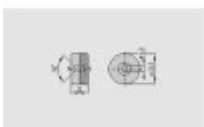
101057553 - BP 34

- thermoplastic enclosure
- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material with a distance of 25 mm



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 lables
-

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

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