

## Datasheet - BN 85-R-1824-1

Magnetic reed switch / BN 85



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

- Mounting on C DIN rail and sheathed cable without screws
- Non-contact principle
- 1 Reed kontakts
- Long life
- Actuating distance up to 40 mm depending on actuating magnet and version
- 40 mm x 35 mm x 16,5 mm
- Thermoplastic enclosure
- Reed-contact to clip-in, on-location assembly


### Ordering details

Product type description	BN 85-R-1824-1
Article number	10BN 85-R-1824-1
EAN Code	
eCl@ss	27-27-01-04

### Approval

Approval	-
----------	---

### Global Properties

Permanent light	BN 85
Standards	-
Compliance with the Directives (Y/N) 	Yes
suitable for elevators (Y/N)	Yes
Mounting	C DIN rail and sheathed cable without screws
Active principle	Magnetic drive
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic
- Material of the cable mantle	LiY
Housing construction form	Block
Weight	
Recommended actuator	BP 6 S, BP 8 S, BP 10 S, 2 x BP 10 S, BP 15 S, 2 x BP 15 S, BP 34 S, BP 20 S, BP 31 S, BP 11 S, BP 12 S

### Mechanical data

Design of electrical connection	Cable
Cable length	1
Conductors	2 x 0,75
AWG-Number	18
Mechanical life	1.000.000.000 operations
Electrical lifetime	500.000.000 operations
Actuating planes	front side
Active area	lateral
Switch distance	2 ... 40 BP 6S = 2 ... 12 mm BP 8S = 2 ... 10 mm BP 10S = 5 ... 20 mm 2 x BP 10S = 6 ... 27 mm BP 15S = 5 ... 22 mm 2 x BP 15S = 7 ... 28 mm BP 34S = 10 ... 40 mm BP 20S = 3 ... 28 mm BP 31S = 4 ... 30 mm BP 11S = 4 ... 23 mm BP 12S = 5 ... 27 mm
- notice	Actuating distance up to 40 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	60 g, on sine wave oscillation
Bounce duration	0,2
Latching (Y/N)	Yes

## Ambient conditions

---

Ambient temperature	
- Min. environmental temperature	0
- Max. environmental temperature	+75
Protection class	IP40 to IEC/EN 60529

## Electrical data

---

Design of control element	bistable contact
Number of snap-in contacts	1
Switching time - Close	2
Switching time - Open	0,07
Voltage type	
Dielectric strength	400
Switching voltage	60
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	
- Width of sensor	40
- Height of sensor	35
- Length of sensor	16.5

## notice

---

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

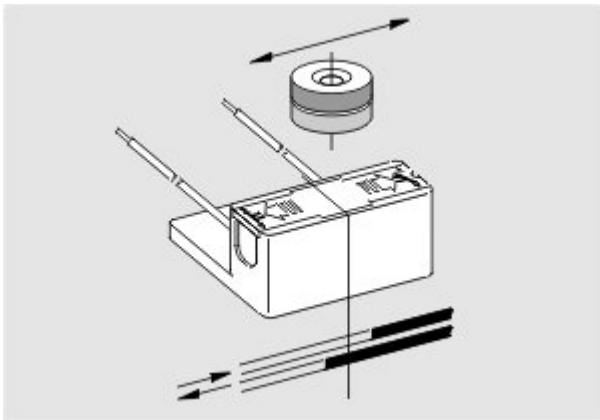
## Included in delivery

---






Actuators must be ordered separately.

## Diagram

---



Note Diagram

-  positive break NC contact
-  active
-  no active
-  Normally-open contact
-  Normally-closed contact

## Documents

---

**Operating instructions** (en) 124 kB, 18.12.2018

Code: mrl\_bn85\_en

**Operating instructions** (de) 121 kB, 18.12.2018

Code: mrl\_bn85\_de

**Declaration of conformity** (en) 186 kB, 12.07.2018

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** (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

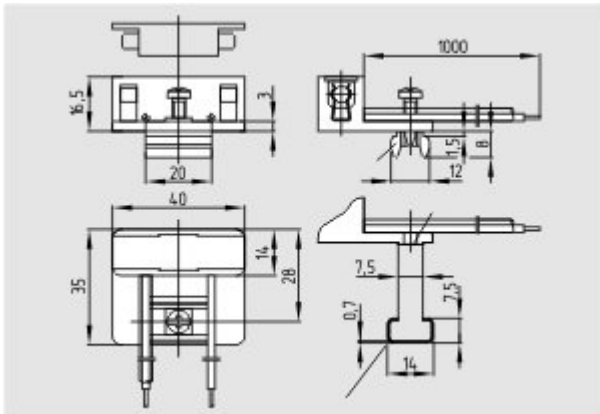
Code: s\_bnbsp05

**notice - Switch distance** (es) 38 kB, 07.08.2009

Code: s\_bnbsp09

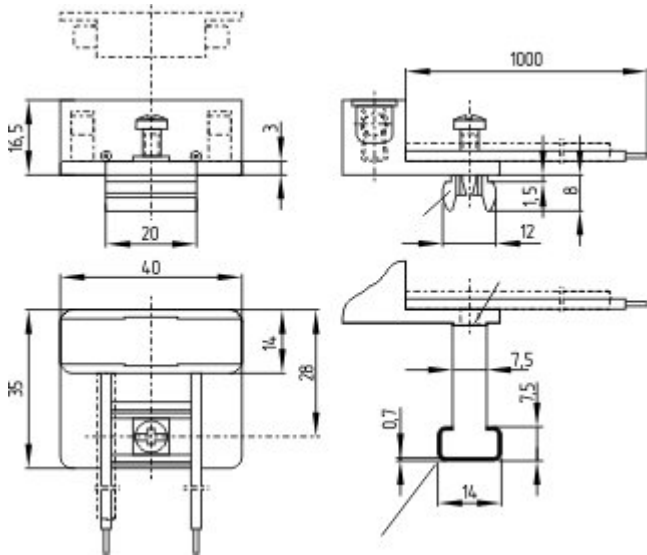
## Images

---



Dimensional drawing (basic component)

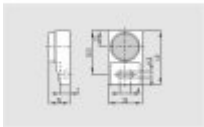
---



Dimensional drawing (basic component)

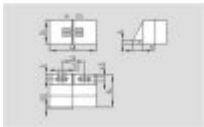
## System components

### Actuator



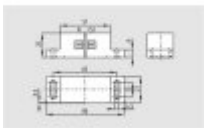
#### 101057533 - BP 11 S

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



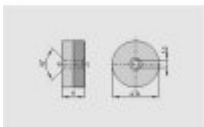
#### 101057521 - BP 31 S

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



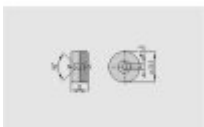
#### 101057541 - BP 20 S

- -metal housing
- S-pole marked red
- 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



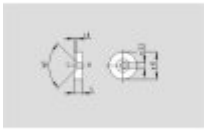
**101057531 - BP 10**

- Unenclosed
- Colour coding of poles by labels



**101054816 - BP 8**

- Unenclosed
- S-pole marked red



**101091837 - BP 6**

- Unenclosed
- S-pole marked red

---

K.A. Schmersal GmbH & Co. KG, Mödinghofe 30, D-42279 Wuppertal

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

Generiert am 13.02.2019 - 13:12:51h Kasbase 3.3.0.F.64I