## Datasheet - BN 32-R-1239

Magnetic reed switch / BN 32

X Preferred typ

- Flat plug-in connector 4.8 mm
- Non-contact principle
- 1 Reed contakts
- Long life
- Actuating surface and direction of actuation marked by switch symbol
- $85 \mathrm{~mm} \times 26 \mathrm{~mm} \times 24 \mathrm{~mm}$
- Thermoplastic enclosure
- Actuating distance up to 55 mm depending on actuating magnet and version
- Spade connector
(Minor differences between the printed image and the original product may exist!)


## Ordering details

Product type description
BN 32-R-1239
Article number
EAN Code
eCl@ss

101057234
4030661025278
27-27-01-04

## Approval

Approval

## Global Properties

Permanent light
BN 32
Standards
Compliance with the Directives (Y/N) $\subset €$
Yes
suitable for elevators (Y/N)
Active principle
No

Materials

- Material of the housings
- Material of the active surface

Housing construction form
Weight
Recommended actuator
Plastic
Block
76

Magnetic drive

Plastic, glass-fibre reinforced thermoplastic

BP $10 \mathrm{~N}, \mathrm{BP} 10 \mathrm{~S}, 2 \times \mathrm{BP} 10 \mathrm{~N}, 2 \times \mathrm{BP} 10 \mathrm{~S}, \mathrm{BP} 15 \mathrm{~N}, \mathrm{BP} 15 \mathrm{~S}, 2 \times \mathrm{BP}$ $15 / 2 \mathrm{~N}, 2 \times \mathrm{BP} 15 / 2 \mathrm{~S}, \mathrm{BP} 34 \mathrm{~N}, \mathrm{BP} 34 \mathrm{~S}, \mathrm{BP} 20 \mathrm{~N}, \mathrm{BP} 20 \mathrm{~S}, \mathrm{BP} 31 \mathrm{~N}, \mathrm{BP}$ $31 \mathrm{~S}, \mathrm{BP} 11 \mathrm{~N}, \mathrm{BP} 11 \mathrm{~S}, 2 \times \mathrm{BP} 11 \mathrm{~N}, 2 \times \mathrm{BP} 11 \mathrm{~S}, \mathrm{BP} 12 \mathrm{~N}, \mathrm{BP} 12 \mathrm{~S}, 2 \mathrm{x}$ BP $12 \mathrm{~N}, 2 \times \mathrm{BP} 12 \mathrm{~S}, \mathrm{BP} 21 \mathrm{~N}, \mathrm{BP} 21 \mathrm{~S}, 2 \times \mathrm{BP} 21 \mathrm{~N}, 2 \times \mathrm{BP} 21 \mathrm{~S}, \mathrm{BE} 20$ $\mathrm{N}(\mathrm{S}) \mathrm{ST} 24 \mathrm{VDC}, \mathrm{BE} 20 \mathrm{~N}(\mathrm{~S}) 48 \mathrm{VDC}$

## Mechanical data

Electrical lifetime
Actuating planes
Active area
Switch distance

- notice

Type of actuation
restistance to shock
resistant to vibration
Bounce duration
Latching (Y/N)
Actuating speed
Switching point accuracy
1.000.000 ... 1.000.000.000 operations

Actuation from side
lateral
5... 55

BP 10N $=10 \mathrm{~mm}$
$B P 10 S=10 \mathrm{~mm}$
$2 \times B P 10 \mathrm{~N}=15 \mathrm{~mm}$
$2 \times B P 10 S=15 \mathrm{~mm}$
BP 15N = 12 mm
BP 15S = 12 mm
$2 \times B P 15 / 2 \mathrm{~N}=17 \mathrm{~mm}$
$2 \times B P 15 / 2 S=17 \mathrm{~mm}$
BP $34 \mathrm{~N}=10 \ldots 25 \mathrm{~mm}$
BP $34 \mathrm{~S}=10 \ldots 25 \mathrm{~mm}$
BP 20N = $5 \ldots 20 \mathrm{~mm}$
BP 20S = $5 \ldots 20 \mathrm{~mm}$
BP 31N = $5 \ldots 20 \mathrm{~mm}$
BP 31S $=5 \ldots 20 \mathrm{~mm}$
BP $11 \mathrm{~N}=10 \mathrm{~mm}$
$B P 11 S=10 \mathrm{~mm}$
$2 \times B P 11 \mathrm{~N}=20 \mathrm{~mm}$
$2 \times B P 11 S=20 \mathrm{~mm}$
BP $12 \mathrm{~N}=15 \mathrm{~mm}$
$B P 12 S=15 \mathrm{~mm}$
$2 \times \mathrm{BP} 12 \mathrm{~N}=10 \ldots 25 \mathrm{~mm}$
$2 \times B P 12 S=10 \ldots 25 \mathrm{~mm}$
BP $21 \mathrm{~N}=15 \ldots 40 \mathrm{~mm}$
BP $21 \mathrm{~S}=15 \ldots 40 \mathrm{~mm}$
$2 \times \mathrm{BP} 21 \mathrm{~N}=20 \ldots 55 \mathrm{~mm}$
$2 \times \mathrm{BP} 21 \mathrm{~S}=20 \ldots 55 \mathrm{~mm}$
BE $20 \mathrm{~N}=15 \mathrm{~mm}$
BE 20S $=15 \mathrm{~mm}$
Actuating distance up to 55 mm depending on actuating magnet and version
Magnet
-
15 g , on sine wave oscillation
0,3 ... 0,6
Yes
18
$\pm 0,25 \mathrm{~mm}$

## Ambient conditions

Ambient temperature

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

## Electrical data

Design of control element
Number of snap-in contacts
Switching time - Close
Switching time - Open
Voltage type
Dielectric strength
Switching voltage
Switching current
Switching capacity

0,3 ... 1.5
$>600$ (50)
250
3 A
Normally open contact (NO)
1

0,5

120 /

## Outputs

Design of control output Reed contakts

## 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
- Height of sensor 26
- Length of sensor 24


## 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
$\Theta_{\text {positive break NC contact }}$
(1) active
(1) no active
--_- Normally-open contact

-     - Normally-closed contact


## Documents

Declaration of conformity (de) $102 \mathrm{kB}, 08.06 .2016$
Code: $\qquad$ bn_p01
notice - Switch distance (de) 36 kB , 07.08.2009
Code: s_bnsp01
notice - Switch distance (nl) $39 \mathrm{kB}, 07.08 .2009$
Code: s_bnsp04
notice - Switch distance (en) $42 \mathrm{kB}, 07.08 .2009$
Code: s_bnsp02
notice - Switch distance (fr) 41 kB, 07.08.2009
Code: s_bnsp03
notice - Switch distance (pt) $39 \mathrm{kB}, 07.08 .2009$
Code: s_bnsp10
notice - Switch distance (it) $40 \mathrm{kB}, 07.08 .2009$
Code: s_bnsp05
notice - Switch distance (es) 38 kB , 07.08.2009
Code: s_bnsp09

Images


Dimensional drawing (basic component)


Dimensional drawing (basic component)


[^0]
## 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


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

[^1]

101057541 - BP 20 S

- -metal housing
- S-pole marked red
- 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-pore 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 lables
K.A. Schmersal GmbH \& Co. KG, Möddinghofe 30, D-42279 Wuppertal

The data and values have been checked throroughly. Technical modifications and errors excepted.
Generiert am 13.02.2019-13:11:48h Kasbase 3.3.0.F.64I


[^0]:    Characteristic curve

[^1]:    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

