## Datasheet - BN 65-10Z/V

## (9) 5СHmERSRL

Magnetic reed switch / BN 65
区 Preferred typ

[^0]- With pre-wired cable
- Non-contact principle
- Long life
- Actuation from front
- Actuating surface and direction of actuation marked by switch symbol
- with bias magnet
- Construction form Ø 13 mm
- Thermoplastic enclosure
- Actuating distance up to 60 mm depending on actuating magnet and version
- with central mounting


## Ordering details

Product type description
Article number
EAN Code
eCl@ss

BN 65-10Z/V
101055824
4030661009797
27-27-01-04

## Approval

## Approval



## Global Properties

## Permanent light

BN 65
Standards
Compliance with the Directives (Y/N) $\subset \in$
suitable for elevators (Y/N)
Mounting
Active principle
Materials

- Material of the housings
- Material of the cable mantle

Housing construction form
Weight
Recommended actuator
-
Yes
Yes
central with threated flange
Magnetic drive

Plastic, glass-fibre reinforced thermoplastic
H03VV-F
cylinder smooth
70
BP 10S, $2 \times$ BP 10S, BP 15S, BP 34S, BP 20S, BP 31S, BP 11S, $2 \times$ BP

## - Lift switchgear

## Mechanical data

| Design of electrical connection | Cable |
| :---: | :---: |
| Cable length | 1 |
| Conductors | $2 \times 0,75$ |
| AWG-Number | 18 |
| Mechanical life | 1.000.000.000 operations |
| Electrical lifetime | 1.000.000 ... 1.000.000.000 operations |
| Switching frequency | 300/ |
| Actuating planes | front side |
| Switch distance | 5 ... 55 <br> BP 10S $=5 \mathrm{~mm}$ <br> $2 \times$ BP 10S $=10 \mathrm{~mm}$ <br> BP 15S $=6 \mathrm{~mm}$ <br> BP 34S $=20 \mathrm{~mm}$ <br> $B P 20 S=15 \mathrm{~mm}$ <br> BP 31S $=15 \mathrm{~mm}$ <br> BP 11S $=5 \mathrm{~mm}$ <br> $2 \times \mathrm{BP} 11 \mathrm{~S}=15 \mathrm{~mm}$ <br> BP $12 \mathrm{~S}=10 \mathrm{~mm}$ <br> $2 \times$ BP $12 \mathrm{~S}=25 \mathrm{~mm}$ <br> $\mathrm{BP} 21 \mathrm{~S}=30 \mathrm{~mm}$ <br> $2 \times \mathrm{BP} 21 \mathrm{~S}=20 \ldots 55 \mathrm{~mm}$ <br> BP $22 \mathrm{~S}=25 \mathrm{~mm}$ <br> $2 \times \operatorname{BP} 22 \mathrm{~S}=15 \ldots 55 \mathrm{~mm}$ <br> BE 20S $=6 \mathrm{~mm}$ |
| - notice | Actuating distance up to 55 mm depending on actuating magnet and version <br> 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 |
| restistance to shock | 30 g , on sine wave oscillation |
| resistant to vibration | 30 g , on sine wave oscillation |
| Resistance to vibration | $10 \ldots 55 \mathrm{HZ}$, Amplitude 1 mm |
| Bounce duration | 0,3...0,6 |
| Latching (Y/N) | No |
| bias magnet (Y/N) | Yes |
| Tightening torque for nuts | 22300 |
| Actuating speed | 18 |
| Switching point accuracy | $\pm 0,25 \mathrm{~mm}$ |

## Ambient conditions

## Ambient temperature

- Min. environmental temperature
$-25$
- Max. environmental temperature
+75
Protection class
IP67 to IEC/EN 60529


## Electrical data

Number of shutters 1
Number of openers 0
Switching time - Close 0,3-1.5
Switching time - Open
-
Switch frequency
< 300
Dielectric strength >600 (50)
Switching voltage 250
Switching current 3 A
Switching capacity 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

- Length of sensor 103
- Diameter of sensor 13


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

## Switch travel diagram



Notes Switch travel diagramContact closedContact openSetting range
(L) Break point
(P)

Positive opening sequence/- angle
VS adjustable range of NO contact
VÖ adjustable range of NC contact
$\mathbf{N}$ after travel

## Documents

Declaration of conformity (en) 186 kB, 12.07.2018
Code: __bn_p01_en

Declaration of conformity (de) $102 \mathrm{kB}, 08.06 .2016$
Code: $\qquad$ bn_p01
notice - Switch distance (de) $36 \mathrm{kB}, 07.08 .2009$
Code: s_bnsp01
notice - Switch distance (nl) $39 \mathrm{kB}, 07.08 .2009$
Code: s_bnsp04
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)


Characteristic curve

## System components

## Actuator

101057432 - BP 22 N (S)


- -metal housing
- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material
- Can be used as N or S magnet


## 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


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


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



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

