## (8) 5CHMERSRL

Operating instructions .pages 1 to 2 Original

## Product description

The BN 85-5 magnetic reed switch enables installation of up to 5 BN 85-RE switch inserts in one enclosure. The switch symbols on the switch inserts (available separately) correspond to actuation with a magnetic south pole. Activation with a magnetic north pole or by turning the switch insert around reverses the switching function. The minimum distance between oppositely poled magnets is 40 mm and can be achieved by selecting suitable tracks.

| Technical data (in combination with BN 85-RE) |  |
| :---: | :---: |
| Standards: |  |
| Enclosure: glass-fibre reinforced | oplastic |
| Operating principle: | magnetic |
| Actuating magnet: | BP 7 |
| Protection class: $\quad$ IP30 in acc. with IEC 60529, DIN (when using 5 | $\begin{aligned} & \text { EE 0470-1 } \\ & \text { ch inserts) } \end{aligned}$ |
| Ambient temperature: | .. $+75^{\circ} \mathrm{C}$ |
| Termination: Connector | g, 10-pole |
| Cable section: | $0.75 \mathrm{~mm}^{2}$ |
| Connector plug: <br> Weidmüller order Phönix order (not included | $\begin{aligned} & \therefore \text { 152726, } \\ & : 1757093 \\ & \text { n delivery) } \end{aligned}$ |
| LED indicator: switch open - Llosed - LED lights up with | lights up pec. 2031 |
| Intended for mounting to ferromagnetic plate and to ferromagnetic C profile rails: |  |
| - Average max. switch distance s: | 14 mm |
| - Max. switch distance under unfavourable conditions $\mathrm{S}_{\text {max }}$ | 11 mm |
| - Minimum distance $\mathrm{s}_{\text {min }}$ : | 1 mm |
| - Rated switch distance $\mathrm{s}_{\mathrm{n}}$ : | 6 mm |

When mounting to a non-ferromagnetic base
(e.g. plastic rails):

| - Switch distance s: | $0 \ldots 9 \mathrm{~mm}$ |
| :--- | ---: |
| - Rated switch distance $\mathrm{S}_{\mathrm{n}}$ : | 5 mm |
| Switching time "Close": | 2 ms |
| Switching time "Open": | 0.07 ms |
| Mechanical life: | $10 \times 10^{8}$ operations |
| Electrical life: | $5 \times 10^{8}$ operations |
| Switching voltage: | $12 \ldots 60 \mathrm{VDC}$ |
| Switching current: | max. 1 A |
| Switching capacity: | max. 30 W |
| Withstand voltage: | 400 VDC |
| Resistance to vibration: | 60 g on sine wave oscillation |

Further technical information can be found in the Schmersal catalogues or in the online catalogue on the Internet: www.schmersal.net.

The currently valid declaration of conformity can be downloaded from the internet at www.schmersal.net.

## Mounting

Non-ferritic screws (MS, stainless steel) should be used for mounting. Use of 'iron screws' reduces the switch distance. The elongated holes for both M6 mountings screws permit a lateral shift of 10 mm . This allows the BN 85-5 to be positioned centrally over the actuating magnet.

## Tolerances

An axial offset between the switch and magnet centre of 5 mm is permissible on the right and left.


## Key

$\mathrm{S}_{\text {max }}$ : maximum switch distance
$\mathrm{S}_{\text {min }}$ : minimum switch distance
$\mathrm{s}_{\mathrm{n}}: \quad$ Rated switching distance


Dimensions (All measurements in mm.)


The user must observe the country-specific installation standards as well as all prevailing safety regulations and accident prevention rules.

## Electrical connection

The electrical connection may only be carried out by authorised personnel in a de-energised condition.

BN 85-5
LED lights up when switch is open.

BN 85-5-2031


LED lights up when switch is closed.

## Disassembly and disposal

## Disassembly

The switch must be disassembled in a de-energised condition only.

## Disposal

The switch must be disposed of in an appropriate manner in accordance with the national prescriptions and legislations.
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