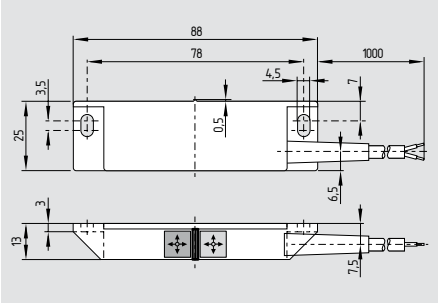
Magnetic reed switches

BN 310



- Contact variants: NC, NO and bistable contact
- Thermoplastic enclosure
- Flat design
- Slotted mounting holes
- Lateral actuation
- Actuation surface and direction of actuation marked by switch symbol
- 1 reed contact
- Area signal
- Selection of actuating magnets available
- With pre-wired cable, cable length 1 m
- Other cable lengths available on request

Approvals

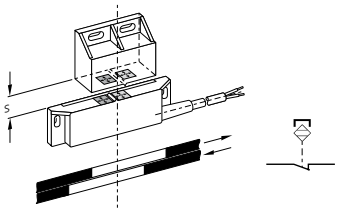
cULus CE

Technical data

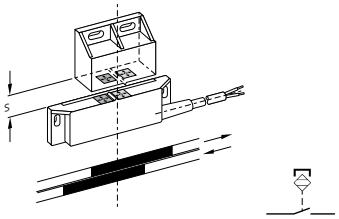
Standards:	IEC/EN 60947-5-2
Design:	square
Enclosure:	glass-fibre reinforced thermoplastic
Protection class:	IP 67 to EN 60529
Termination:	cable H03VV-F, 2 x 0.75 mm², cable length 1 m
Operating principle:	magnetic
Switching voltage:	max. 250 VAC/DC
Switching current:	max. 3 A
Switching capacity:	max. 120 VA/W
Dielectric strength:	> 600 VAC (50 Hz)
Switching frequency:	< 300 Hz
Switching time “closing“:	0,3 ms - 1.5 ms
Switching time “opening“:	max. 0.5 ms
Bounce time:	0.3 ... 0.6 ms
Ambient temperature:	– 25 °C ... + 75 °C
Mechanical life:	1 billion operations
Electrical life:	1 million - 1 billion operations, depending on load
Resistance to shocks:	30 g / 11 ms
Resistance to vibrations:	10 ... 55 Hz, amplitude 1 mm
Repeatability:	± 0,25 mm, T = constant
Switching distances:	min. 0 mm max. 30 mm

Contact variants

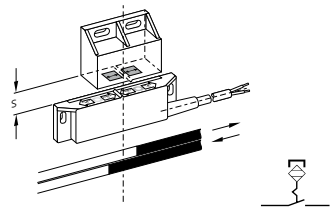
1 NC contact BN 310-01z with N-S magnet



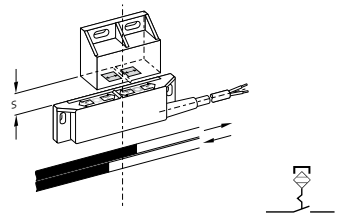
1 NO contact BN 310-10z with N-S magnet



1 bistable contact BN 310-rz with N magnet



1 bistable contact BN 310-rz with S magnet



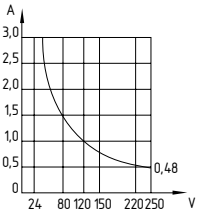
s: Switching distance

Ordering data

BN 310-①z

N°	Insert	Description
①	01	1 NC contact
	10	1 NO contact
	r	1 bistable contact

Switching capacity



The actuating magnets are not included in delivery.

For the selection of the actuating magnets, see table on page 2-40.

Notice

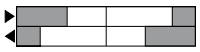
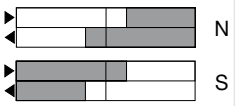
The NC and NO function depends on the direction of actuation and the polarity of the actuating magnet.

When the switch and actuating magnet face each other, the colours must be corresponding.

The switches are to be mounted on iron with a non-magnetic layer of at least 20 mm.

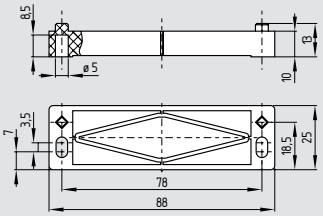
Magnetic reed switches

Actuating magnets

Part number	BN 310-01z	BN 310-10z	BN 310-rz
Switch travel			 N S
Contacts	1 NC contact	1 NO contact	**1 bistable contact**
Actuation type	N/S	N/S	S or N
Actuating magnet	actuating distance [mm] s min. – max.	actuating distance [mm] s min. – max.	actuating distance [mm] s min. – max.
non-encapsulated			
BP 10	0 – 5	0 – 5	0 – 15
2 x BP 10	0 – 17	0 – 17	0 – 20
2 x BP 15/2	0 – 17	0 – 17	0 – 22
plastic encapsulated			
BP 15	0 – 6	0 – 6	0 – 17
2 x BP 15	0 – 17	0 – 17	0 – 22
BP 34	5 - 20	5 - 20	15 - 30

Only for bistable contact r:
If the magnet is installed onto a metal plate, the switching distance increases..

System components



Spacer BN 31/33