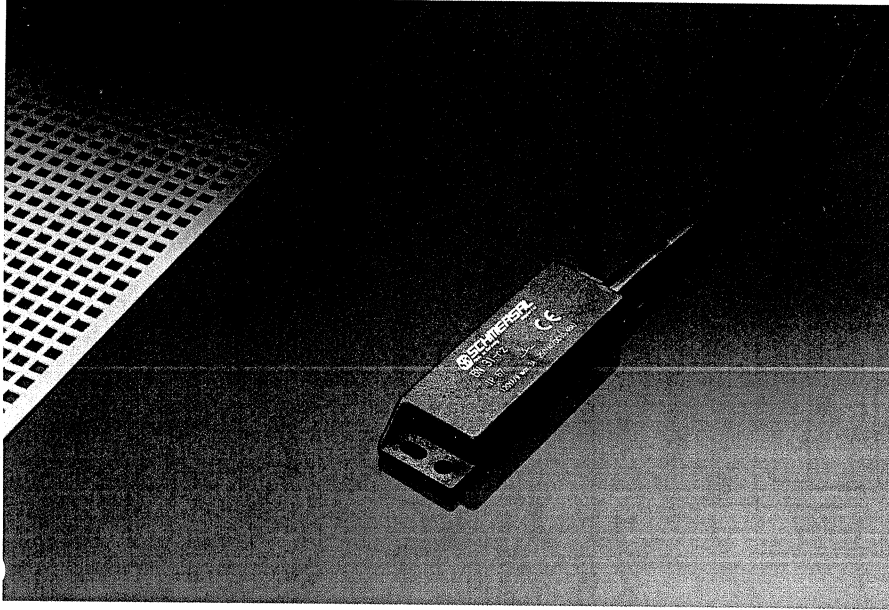


# Magnetic reed switch BN 31

Flat design, thermoplastic housing · cable · IP 67 design · technical data



the reed tube and bias magnet. After adjustment, the bias magnets and reed tube are secured in the housing by using an adhesive, and then potted with an elastic filler material. The embedded H 03 VV - F 2 x 0.75 mm<sup>2</sup> connecting cable is strain-relieved by an antikink cable protector. Standard switches are supplied with 1 m cable. Other lengths are also available on request at extra cost.

The mounting holes are slotted, in order to permit exact setting of the switch sensing distance. The actuation zone of the switch is marked to provide the exact setting of the actuating magnet.

The colour coding is also provided on the same side, in order to accommodate correct selection and positioning of the switching magnets. The possible directions of actuation are also indicated by printed arrows. The actuating magnets also have corresponding colour codes.

The following contact configurations are available:

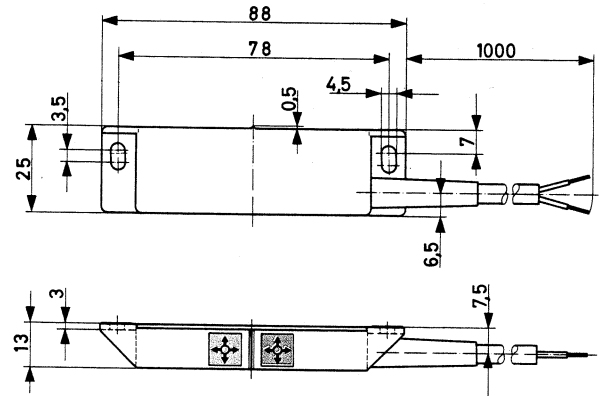
NO contact	= 10	
NC contact	= 01	
Bistable contact	= r	

The housing, like the cover, is made from fibreglass reinforced thermoplastic and accommodates the reed tube and the bias magnet. The reed tube is fixed by two foam rubber plugs in the housing. This ensures high vibration resistance, so that vibrations are not directly transmitted from the housing to the reed tube.

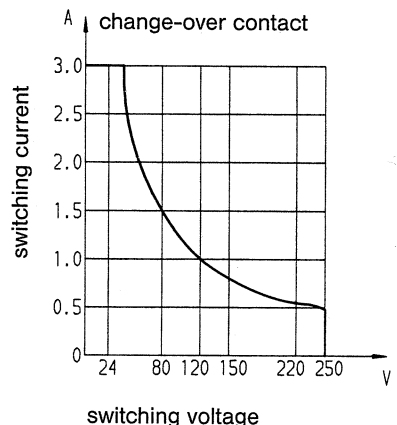
The bias magnets are factory adjusted once they have been mounted into the switch housing. The magnets are adjusted along the length of the switch in order to determine the centre point of switching, and in the switching distance, in order to change the magnetic force. There is also an intermediate layer of foam rubber between

## Technical data

Housing and cover:	fibreglass reinforced thermoplastic
Degree of protection:	IP 67 per IEC 60529/EN 60529/ DIN VDE 0470-1
Connection type:	cable H03W-F2 X 0.75 mm <sup>2</sup> (AWG 16), 1 m long
Ambient temperature:	-25°...+75° C (-13°...+167° F)
Switching speed:	max. 18 m/s
Switching frequency:	max. 300 ops./s
Switching time "make":	0.3 ms...1.5 ms
Switching time "break":	max. 0.5 ms
Bounce time:	0.3...0.6 ms
Mechanical life:	min. 10 <sup>9</sup> operations
Electrical life:	10 <sup>6</sup> ...10 <sup>9</sup> operations depending on type of load
Electrical ratings:	see diagram
Dielectric strength:	> 600 VAC (50 Hz)
Operate point reproducibility:	± 0.25 mm (T = const)
Vibration resistance:	15 g (sinusoidal vibration)
Voltage:	max. 250 VAC
Current:	max. 3 A
Power:	max. 120 VA, max. 120 W



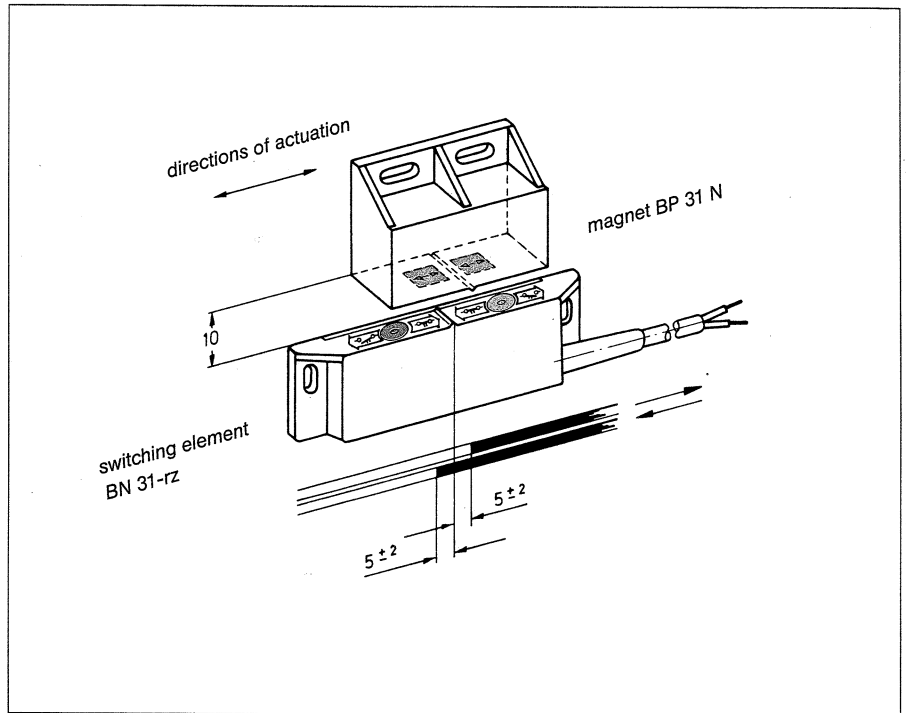
Dimensions BN 31-...



# Magnetic reed switch BN 31

Flat design, thermoplastic housing · cable · IP 67  
bistable contact · N magnets

type	actuating distance [mm]
BP 10 N BP 15 N BP 34 N	15 17 15-30
2 x BP 10 N 2 x BP 15/2 N	20 22
BP 20 N	3-25
BP 31 N	3-25
BE 20 N	20
BP 11 N BP 12 N BP 21 N	15 20 15-45
2 parts BP 11 N	3-25
2 parts BP 12 N	10-30
2 parts BP 21 N	20-60



Switching element BN 31-rz with actuating magnet BP 31 N

magnetic reed switch	contact	switching travel	part No.
	bistable contact		BN 31-rz

Supplied with 1 m cable  
Other lengths available at extra costs.

### Order guide – magnet

- 1. magnet – permanent magnet = BP
  - 2. magnet type = 31
  - 3. polarity – N = N
- = BP 31 N

see chapter "actuating magnets"