

## Datasheet - EX-BN 20-02Z-3G/D

Magnetic reed switch / EX-BN 20



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

- 2 reed contacts
- Aluminium enclosure
- Long life
- 104 mm x 52 mm x 47 mm
- Non-contact principle
- 1 Reed kontakts
- Actuating distance up to 50 mm depending on actuating magnet and version
- Screw connection
- Ex certified

### Ordering details

Product type description	EX-BN 20-02Z-3G/D
Article number	101193763
EAN Code	4030661356907
eCl@ss	27-27-01-04

### Approval

Approval



### Global Properties

Permanent light	EX-BN 20
Standards	EN 60079-0, EN 60079-15, EN 60079-31
Compliance with the Directives (Y/N)	Yes
Active principle	Magnetic drive
Materials	
- Material of the housings	light alloy die-casting, painted
- Material of the active surface	Metal film
Housing construction form	rectangular
Weight	330
Recommended actuator	2 x BP 10, 2 x BP 15/2, BP 20, BP 31, BP 11, BP 12, BP 21, BE 20

### Mechanical data

Design of electrical connection	Screw connection
Cable cross-section of the cable glands	
- Min. Cable cross-section of the cable glands	Ø 6
- Max. Cable cross-section of the cable glands	Ø 10
Mechanical life	1.000.000.000 operations
Electrical lifetime	1.000.000 ... 1.000.000.000 operations

Actuating planes	Actuation from side
Active area	lateral
Switch distance $S_n$	12 mm ... 45 mm
notice	Actuating distance up to 45 mm depending on actuating magnet and version
Type of actuation	Magnet
resistance to shock	30 g / 11 ms
Resistance to vibration	10 ... 55 HZ, Amplitude 1 mm
resistant to vibration	50 g, on sine wave oscillation
Bounce duration	0,3 ... 0,6
Latching (Y/N)	No
Impact energy	max. 4 J
bias magnet (Y/N)	Yes
Actuating speed	max. 18 m/s
Switching point accuracy	$\pm 0,25$ mm

### Ambient conditions

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Ambient temperature	
- Min. environmental temperature	-15
- Max. environmental temperature	+70
Storage and transport temperature	
- Min. Storage and transport temperature	-25
- Max. Storage and transport temperature	+70
Protection class	IP67

### Electrical data

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Design of control element	Opener (NC)
Number of shutters	0
Number of openers	2
Switching time - Close	-
Switching time - Open	max. 0,5 ms
Voltage type	AC, alternating current
Switch frequency	
Dielectric strength	> 600 VAC (50 HZ)
Switching voltage	max. 250 VAC/DC
Switching current	max. 3 A
Switching capacity	max. 120 VA / W
Interference resistance to magnetic fields	

### Outputs

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Design of control output	Reed kontakts
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### LED switching conditions display

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LED switching conditions display (Y/N)	No
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### ATEX

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EX-marking	EX II 3G Ex nC IIC T5 Gc X EX II 3D Ex tc IIIC T90°C Dc X
Explosion protection categories for gases	ATEX gas ex-protection, Cat. 3

Explosion protection Zones for gases	2
Explosion protected category for dusts	ATEX dust ex-protection, Cat. 3
Explosion protection Zones for dusts	22

## Dimensions

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Dimensions of the sensor	
- Width of sensor	104
- Height of sensor	52
- Length of sensor	47

## notice

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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).

## Included in delivery

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Actuators must be ordered separately.  
Ex-certified screwed cable gland

## Ordering code

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EX-BN 20-(1)Z-3G/D

(1)

01	1 Opener (NC)
02	2 Opener (NC)
10	1 Normally open contact (NO)
20	2 Normally open contact (NO)
11	1 Opener (NC) / 1 Normally open contact (NO)
R	1 bistable contact
2R	2 bistable contact
11R	2 bistable contact Opener (NC) / Normally open contact (NO)

## Documents

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**Operating instructions and Declaration of conformity (es)** 261 kB, 17.01.2018

Code: mrl\_ex-bn20\_es

**Operating instructions and Declaration of conformity (de)** 236 kB, 17.11.2017

Code: mrl\_ex-bn20\_de

**Operating instructions and Declaration of conformity (nl)** 258 kB, 17.01.2018

Code: mrl\_ex-bn20\_nl

**Operating instructions and Declaration of conformity (pt)** 269 kB, 17.01.2018

Code: mrl\_ex-bn20\_pt

**Operating instructions and Declaration of conformity (pl)** 283 kB, 17.01.2018

Code: mrl\_ex-bn20\_pl

**Operating instructions and Declaration of conformity (en)** 261 kB, 17.11.2017

Code: mrl\_ex-bn20\_en

Operating instructions and Declaration of conformity (it) 263 kB, 17.01.2018

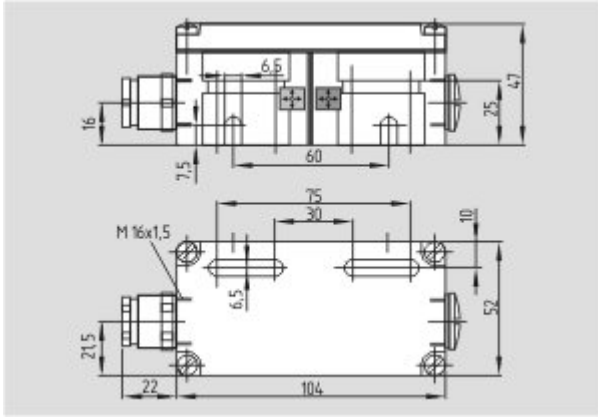
Code: mrl\_ex-bn20\_it

Operating instructions and Declaration of conformity (fr) 266 kB, 17.01.2018

Code: mrl\_ex-bn20\_fr

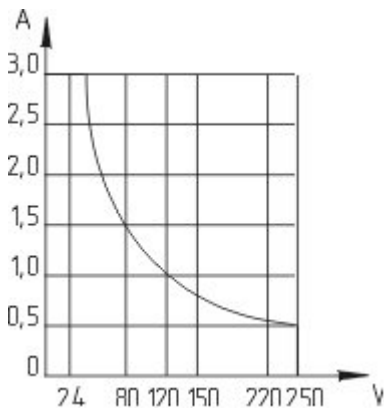
## Images

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Dimensional drawing (basic component)

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Characteristic curve

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The data and values have been checked thoroughly. Technical modifications and errors excepted.

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