

## Ex magnetic sensors

Ex RC M20 1W - 5m

Material number: 1179277 (Material number old: 22033501)

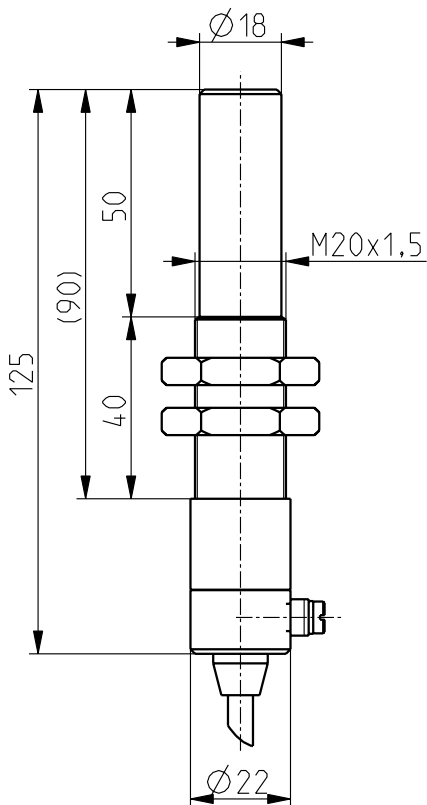
### Features/Options:

- Ex zone 1 and 21
- Brass enclosure, nickeled
- Including 2 mounting nuts
- 1 Reed contact
- Actuation from front
- Switching distance up to 30 mm depending on the actuating magnet
- With pre-wired cable
- N.B.: Please state required international approvals with your order!

### Notes

- 2 mounting nuts are included in delivery
- The actuator is not included in the delivery of the switches

### Dimensions



### Technical data

Standards	EN 60947-5-1; EN 60079-0; EN 60079-18
Enclosure	brass, nickeled
Degree of protection	IP 67 to IEC/EN 60529
Contact material	Rhodium
Switching system	reed contacts
Switching elements	change-over contact
Connection	pre-wired cable H05VV-F
Cable cross-section	4 x 0.75 mm <sup>2</sup>
Cable length	5 m
Switching voltage	250 VAC
Switching current	1.5 A
Short-circuit current I <sub>k</sub>	max. 2 A
Switching capacity	max. 50 W
Utilisation category	AC-12; DC-12
Bounce duration	0,3 ... 0,6 ms
Ambient temperature	-20 °C ... +70 °C
Mechanical life	> 1 million operations
Electrical life	10 <sup>6</sup> ... 10 <sup>9</sup> operations
Vibration resistance	10 ... 50 g
Impact energy	max. 7 J

# Malux

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## Technical data

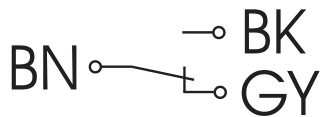
Ex marking	⊕ II 2G Ex mb IIC T6 Gb, ⊕ II 2D Ex mb IIIC T80 °C Db IECEX Ex mb IIC T6 Gb Ex mb IIIC T80 °C Db
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Approvals	DMT 01 ATEX E 058 X IECEX BVS 07.0007 X
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Weight	664 g
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## Contact diagram



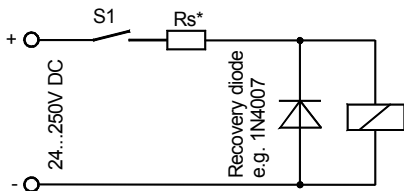
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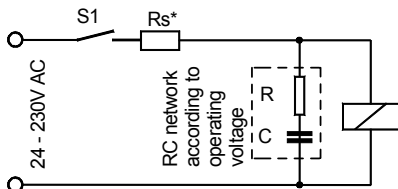
#### Directive for the protection of reed contacts

#### 1.) Protective circuit for inductive load to DC voltage



coil voltage Ue	serial resistor Rs
24 VDC	27 Ohm / 0.6 W
48 VDC	51 Ohm / 0.6 W

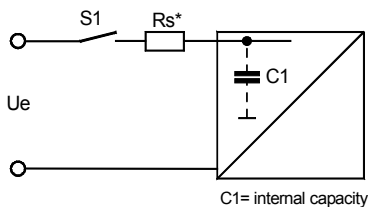
#### 2.) Protective circuit for inductive load to AC voltage



Permitted values for RC elements

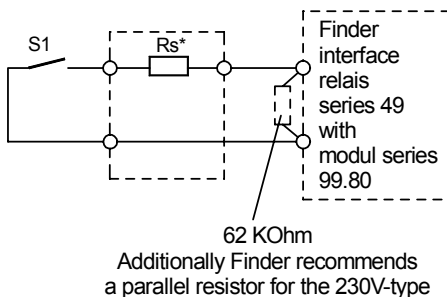
coil voltage Ue	capacity C	resistor R	resistor Rs
24 VAC	0,1 µF	100 Ohm	27 Ohm/0,6 W
48 VAC	0,1 µF	220 Ohm	75 Ohm/0,6 W
115 VAC	0,1 µF	330 Ohm	180 Ohm/0,6 W
230 VAC	0,1 µF	470 Ohm	330 Ohm/0,6 W

#### 3.) Protective circuit for capacitive load on DC / AC voltage



coil voltage Ue	serial resistor Rs
24 VDC	27 Ohm / 0.6 W
24 VAC	39 Ohm / 0.6 W
230 VAC	330 Ohm / 0.6 W

\*Due to the cable capacitances it is necessary to place the series resistors Rs as near as possible to the reed contact, in general the next terminal point (junction box). For cable length > 5m.  $R_s \ll R_L$  or R



With unknown input currents, input capacitances we recommend the interposing of an interface relays. When using Finder relays series 49, in the following you will find some proposals to protect the reed contact against overload.

coil voltage Ue	serial resistor Rs
24 VDC	27 Ohm / 0.6 W
24 VAC	39 Ohm / 0.6 W
230 VAC	330 Ohm / 0.6 W

Errors and omissions excepted.

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