



Basic features

Approval/Conformity	cULus CE UKCA WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Magnetic field sensor

Display/Operation

Function indicator	yes
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Electrical connection

Cable	PUR, 2 m
Cable diameter D	3.10 mm
Conductor cross-section	0.14 mm ²
Number of conductors	3
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Assured switching field strength H_a	2 kA/m
Load capacitance max. at U_e	1 μ F
No-load current I_o max., undamped	10 mA
Operating voltage U_b	10...30 VDC
Output resistance R_a	Open drain
Rated insulation voltage U_i	75 V DC
Rated operating current I_e	200 mA
Rated operating voltage U_e DC	24 V
Rated short circuit current	100 A
Rated switch field strength H_n	1.2 kA/m
Residual current I_r max.	80 μ A
Ripple max. (% of U_e)	15 %
Switching frequency	10000 Hz
Turn-off delay t_{off} max.	0.05 ms
Turn-on delay t_{on} max.	0.05 ms
Utilization category	DC -13
Voltage drop static max.	3.1 V

Environmental conditions

Ambient temperature	-25...85 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 g _n , 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
ESD	4A(8KV)
IP rating	IP67

Functional safety

MTTF (40 °C)	225 a
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Magnetic Sensors
BMF 08M-NS-C-2-KPU-02
Order Code: **BMF000M**

BALLUFF

Interface

Switching output NPN normally open (NO)

Material

Housing material Brass, nickel-plated
Material jacket PUR
Material sensing surface PBTP
Surface protection nickel-plated

Mechanical data

Dimension Ø 8 x 30.5 mm
Size M8x1
Tightening torque 3 Nm/6 Nm

Remarks

The switching distance depends on the magnet used. Switching distances of >20 mm can be achieved.

The sensor is functional again after the overload has been eliminated.

EMC: Surge resistance

External protection circuit is required. Document 825345, Section 2.

UL-MARKINGS: - For use in NFPA 79 Applications only - Adapters providing field wiring means are available from the manufacturer. Refer to manufacturers information.

For more information about MTTF and B10d see MTTF / B10d Certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

Wiring Diagrams

