



Basic features

Application	Flexible mounting Switching distances 20 mm possible
Approval/Conformity	cULus CE WEEE EAC
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 Ha	2 kA/m
Load capacitance max. at Ue	1 µF
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 µA
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)	330 a
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Magnetic Sensors
BMF 08M-PS-C-2-KPU-02
Order Code: BMF000P

BALLUFF

Material

Housing material	Brass, nickel plated
Jacket material	PUR
Material sensing surface	PBTB
Surface protection	nickel plated

Mechanical data

Dimension	Ø 8 x 30.5 mm
Mounting	Clamps
Size	D6.5
Tightening torque	3 Nm/6 Nm

Output/Interface

Switching output	PNP normally open (NO)
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Remarks

EMC: Surge resistance
 External protection circuit is required. Document 825345, Section 2.
 The sensor is functional again after the overload has been eliminated.
 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

Technical Drawings

Temperature (°C)	Current (I _e)
0	200
25	200
85	157