



Basic features

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

Display/Operation

Function indicator	yes
--------------------	-----

Electrical connection

Cable	PUR, 2.00 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 Io max., undamped	10 mA
Operating voltage Ub	10...30 VDC
Output resistance Ra	Open drain
Rated insulation voltage Ui	75 V DC
Rated operating current Ie	200 mA
Rated operating voltage Ue DC	24 V
Rated short circuit current	100 A
Rated switch field strength Hn	1.2 kA/m
Residual current Ir max.	80 µA
Ripple max. (% of Ue)	15 %
Switching frequency	10000 Hz
Turn-off delay toff max.	0.05 ms
Turn-on delay ton 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 gn, 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
ESD	4A(8KV)
Protection degree	IP67

Functional safety

MTTF (40 °C)	225 a
--------------	-------

Magnetic Sensors
BMF 08M-NS-C-2-KPU-02
Order Code: BMF000M

BALLUFF

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

Output/Interface

Switching output	NPN normally open (NO)
------------------	------------------------

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.

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

