



1) Sensing surface



Basic features

Application	Optimized response path especially suited for short-stroke cylinders.
Approval/Conformity	cULus CE UKCA WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Magnetic field sensor
Scope of delivery	Cable clip for C-slot
Trademark	Global

Display/Operation

Function indicator	yes
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Electrical connection

Cable	PUR, 2 m
Cable diameter D	2.50 mm
Conductor cross-section	0.10 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 I₀ max., undamped	5 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	100 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	7000 Hz
Turn-off delay t_{off} max.	0.07 ms
Turn-on delay t_{on} max.	0.07 ms
Utilization category	DC -13
Voltage drop static max.	2.5 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	3A(8KV)
Emission	Group 1, Class B
IP rating	IP67

Magnetic Sensors
BMF 204K-PS-C-2A-PU-02
Order Code: **BMF0001**

BALLUFF

Functional safety

MTTF (40 °C) 520 a

Interface

Switching output PNP normally open (NO)

Material

Housing material PA 12
Material jacket PUR

Mechanical data

Dimension 16.8 x 2.9 x 4.5 mm
Mounting part C-slot
Sommer
Festo slot 10
Tightening torque 0.03 Nm

Range/Distance

Temp. drift max. (% of Hn) 0.3 %

Remarks

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

EMC: Surge resistance

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

Max. pull force on cable 10 N.

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

