



1) Sensing surface

Basic features

Application	Optimized response path especially suited for short-stroke cylinders.
Approval/Conformity	cULus CE 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, 1.2 m
Cable diameter D	2.50 mm
Connection	M8x1-Male, 3-pin
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	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 μ A
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

Functional safety

MTTF (40 °C)	520 a
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Magnetic Sensors
BMF 214K-PS-C-2A-SA2-S49-01,2
Order Code: BMF00LH

BALLUFF

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
Tightening torque 0.03 Nm

Range/Distance

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

Remarks

Max. pull force on cable 10 N.

EMC: Surge resistance

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

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

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.

Connector Drawings



Wiring Diagrams

