

1) Sensing surface, 2) Sensor 1



Basic features

Approval/Conformity	cULus CE UKCA WEEE
Basic standard	IEC 60947-5-2
Not incl. in scope of delivery	Mounting bracket, e.g. BMF 305-HW-17
Principle of operation	Magnetic field sensor

Display/Operation

Function indicator	yes
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Electrical connection

Cable	0.3 m
Cable diameter D	3.00 mm
Connection	M12x1-Male, 4-pin, A-coded
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
Hysteresis H max. (% of H_n)	45 %
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(15kV)
Emission	Group 1, Class B
IP rating	IP67

Magnetic Sensors
BMF 305K-PS-C-2-SA95-S4-00,3
Order Code: BMF005Z



Interface

Switching output PNP normally open (NO)

Material

Housing material LCP
Material sensing surface PU

Mechanical data

Dimension 33.5 x 5 x 10.5 mm

Range/Distance

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

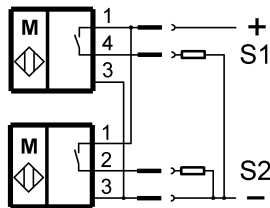
Remarks

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.

Connector Drawings



Wiring Diagrams



Technical Drawings

