



1) Sensing surface



Basic features

Application	miniaturized actuators
Approval/Conformity	cULus CE UKCA WEEE
Basic standard	IEC 60947-5-2
Not incl. in scope of delivery	Mounting bracket, e.g. BMF 303-HW-28
Principle of operation	Magnetic field sensor

Display/Operation

Function indicator	yes
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Electrical connection

Cable	PUR, 0.3 m
Cable diameter D	2.80 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 Ha	2 kA/m
Hysteresis H max. (% of Hn)	45 %
Load capacitance max. at Ue	1 µF
No-load current I _o max., undamped	3.5 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.	10 µA
Ripple max. (% of U _e)	15 %
Switching frequency	30000 Hz
Turn-off delay t _{off} max.	0.02 ms
Turn-on delay t _{on} max.	0.02 ms
Utilization category	DC -13
Voltage drop static max.	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	2A (4 kV)
Emission	Group 1, Class B
IP rating	IP67

Functional safety

MTTF (40 °C) 744 a

Interface

Switching output PNP normally open (NO)

Material

Housing material	LCP
Material jacket	PUR
Material sensing surface	LCP

Mechanical data

Dimension	25.5 x 3 x 4.5 mm
Mounting part	Mounting bracket BMF 303-HW*

Remarks

Switching frequency f max.: Measured at 50 % duty cycle and 20 % I_e
 Max. pull force on cable 10 N.
 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.

Connector Drawings



Wiring Diagrams (Schematic)

