



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
Not incl. in scope of delivery	Mounting bracket, e.g. BMF 103-HW-42
Principle of operation	Magnetic field sensor

Display/Operation

Function indicator	yes
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Electrical connection

Cable diameter D	2.50 mm
Cable jacket, material	PUR
Cable length L	2.00 m
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
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) 739 a

Interface

Switching output PNP normally open (NO)

Material

Housing material PBT
Material jacket PUR
Material sensing surface PBT

Mechanical data

Dimension 9 x 4.8 x 16 mm
Mounting part Mounting bracket BMF 103-HW*

Remarks

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

Switching frequency f max.: Measured at 50 % duty cycle and 20 % I_e

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 (Schematic)

