

1) Sensing surface



Basic features

Approval/Conformity	CE UKCA cULus 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
---------------------------	-----

Electrical connection

Cable	PUR, 0.2 m
Cable diameter D	2.90 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 Io max., undamped	15 mA
Operating voltage Ub	10...30 VDC
Output resistance Ra	Open drain
Rated insulation voltage Ui	75 V DC
Rated operating current Ie	200 mA
Rated operating voltage Ue DC	24 V
Rated short circuit current	100 A
Rated switch field strength Hn	1.2 kA/m
Residual current Ir max.	80 µA
Ripple max. (% of Ue)	15 %
Switching frequency	10000 Hz
Turn-off delay toff max.	0.05 ms
Turn-on delay ton 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 gn, 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
ESD	3A(8KV)
IP rating	IP67

Magnetic Sensors
BMF 305K-PO-C-2-S49-00,2
Order Code: BMF0054

BALLUFF

Interface

Switching output PNP normally closed (NC)

Material

Housing material LCP
Material jacket PUR
Material sensing surface LCP

Mechanical data

Dimension 33.5 x 5 x 10.5 mm

Range/Distance

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

Remarks

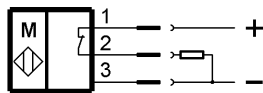
The sensor is functional again after the overload has been eliminated.

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

