

1) Position sensor element, 2) see remarks, 3) see remarks, 4) see remarks



Basic features

Approval/Conformity	cULus CE UKCA Ecolab 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	TPE-V, 2 m
Cable diameter D	2.9 mm
Conductor cross-section	0.14 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
Load capacitance max. at Ue	1 µF
No-load current I ₀ 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	10000 Hz
Utilization category	DC -13
Voltage drop static max.	1 V

Environmental conditions

Ambient temperature	-40...100 °C
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, IP68, IP69K

Functional safety

MTTF (40 °C)	725 a
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Magnetic Sensors
BMF 405KF-PS-C-2A-EY-02
Order Code: **BMF00M0**

BALLUFF

Interface

Switching output PNP normally open (NO)

Mechanical data

Dimension 5 x 5.4 x 27 mm

Material

Housing material PP
Locking screw material 1.4404 stainless steel
Material jacket TPE-V
Material sensing surface PP

Remarks

2) Application area: pneumatic cylinder with t-slot. For dimensions, see sketch in product view.

Damping magnet axially magnetized

4) Set screw

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

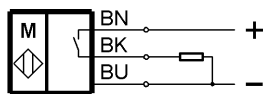
Part label is not suited for cleaning processes.

100x temperature cycles per IEC 60068-2-14 passed for -40...120 °C.

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



Help Views

