



1) Sensing surface, 2) Sensor 1



### Basic features

Application	Optimized response path especially suited for short-stroke cylinders.
Approval/Conformity	CE UKCA cULus WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Magnetic field sensor
Trademark	Global

### Display/Operation

Function indicator	yes
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### Electrical connection

Cable	PUR, 0.3 m
Cable diameter D	2.50 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
Load capacitance max. at $U_e$	1 $\mu$ F
No-load current $I_o$ max., undamped	7 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.	80 $\mu$ A
Ripple max. (% of $U_e$ )	15 %
Switching frequency	7000 Hz
Turn-off delay $t_{off}$ max.	0.07 ms
Turn-on delay $t_{on}$ max.	0.07 ms
Utilization category	DC -13
Voltage drop static max.	2.5 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	3A(8KV)
Emission	Group 1, Class B
IP rating	IP67

Magnetic Sensors  
**BMF 214K-PS-C-2A-SA95-S4-00,3**  
**Order Code: BMF00A4**



**Functional safety**

MTTF (40 °C)	520 a
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**Interface**

Switching output	PNP normally open (NO)
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**Material**

Housing material	PA 12
Material jacket	PUR

**Mechanical data**

Dimension	16.8 x 2.9 x 4.5 mm
Mounting part	C-slot SMC Bimba Schunk
Tightening torque	0.03 Nm

**Range/Distance**

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

Max. pull force on cable 10 N.

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

EMC: Surge resistance

External protection circuit is required. Document 825345, Section 2.

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.

**Connector Drawings**



**Wiring Diagrams**

