



1) Sensing surface



### Basic features

<b>Application</b>	Pneumatic cylinder with C-slot, e.g. SMC, Festo*, Schunk, Sommer, Gimatic (*not suitable for Festo Series ADVC and AEVC)
<b>Approval/Conformity</b>	CE cULus EAC WEEE
<b>Basic standard</b>	IEC 60947-5-2
<b>Principle of operation</b>	Magnetic field sensor
<b>Scope of delivery</b>	Cable clip for C-slot Offset screwdriver DIN 911 size 0.9
<b>Trademark</b>	Global

### Display/Operation

<b>Function indicator</b>	yes
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### Electrical connection

<b>Cable</b>	PUR, 0.3 m
<b>Cable diameter D</b>	2.40 mm
<b>Connection</b>	M8x1-Male, 4-pin
<b>Polarity reversal protected</b>	yes
<b>Protection against device mix-ups</b>	yes
<b>Short-circuit protection</b>	yes

### Electrical data

<b>Assured switching field strength <math>H_a</math></b>	2.4 kA/m
<b>Hysteresis <math>H_{max}</math> (% of <math>H_n</math>)</b>	45 %
<b>Load capacitance max. at <math>U_e</math></b>	0.45 $\mu$ F
<b>No-load current <math>I_o</math> max., undamped</b>	8 mA
<b>Operating voltage <math>U_b</math></b>	10...30 VDC
<b>Output resistance <math>R_a</math></b>	Open drain
<b>Rated insulation voltage <math>U_i</math></b>	75 V DC
<b>Rated operating current <math>I_e</math></b>	100 mA
<b>Rated operating voltage <math>U_e</math> DC</b>	24 V
<b>Rated short circuit current</b>	100 A
<b>Rated switch field strength <math>H_n</math></b>	2 kA/m
<b>Residual current <math>I_r</math> max.</b>	10 $\mu$ A
<b>Ripple max. (% of <math>U_e</math>)</b>	15 %
<b>Switching frequency</b>	3000 Hz
<b>Turn-off delay <math>t_{off}</math> max.</b>	0.07 ms
<b>Turn-on delay <math>t_{on}</math> max.</b>	0.07 ms
<b>Utilization category</b>	DC -13
<b>Voltage drop static max.</b>	2 V

### Environmental conditions

<b>Ambient temperature</b>	-25...85 °C
<b>Contamination scale</b>	3
<b>EN 60068-2-27, Shock</b>	Half-sinus, 30 $g_n$ , 11 ms
<b>EN 60068-2-6, Vibration</b>	55 Hz, amplitude 1 mm, 3x30 min
<b>ESD</b>	4A(8KV)
<b>Emission</b>	Group 1, Class B
<b>IP rating</b>	IP67

Magnetic Sensors  
**BMF 243K-PS-C-2A-SA95-S75-00,3**  
**Order Code: BMF00ET**



**Functional safety**

MTTF (40 °C) 310 a

**Interface**

Switching output PNP normally open (NO)

**Material**

Clamping screw material Stainless steel  
 Housing material PA 12  
 Material jacket PUR  
 Material sensing surface PA 12

**Mechanical data**

Dimension 24 x 3 x 3.75 mm  
 Mounting part can be installed in C-slot from above  
 Tightening torque 0.07 Nm

**Range/Distance**

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

**Remarks**

The sensor is functional again after the overload has been eliminated.  
 889416

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**

