

1) see remarks



**Basic features**

<b>Application</b>	Flexible mounting Switching distances 20 mm possible
<b>Approval/Conformity</b>	cULus CE WEEE EAC
<b>Basic standard</b>	IEC 60947-5-2
<b>Principle of operation</b>	Magnetic field sensor

**Display/Operation**

<b>Function indicator</b>	no
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**Electrical connection**

<b>Cable</b>	PUR, 0.3 m
<b>Cable diameter D</b>	3.10 mm
<b>Connection</b>	M8x1-Male, 3-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 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>	1 $\mu$ F
<b>No-load current <math>I_o</math> max., undamped</b>	10 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>	200 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>	1.2 kA/m
<b>Residual current <math>I_r</math> max.</b>	80 $\mu$ A
<b>Ripple max. (% of <math>U_e</math>)</b>	15 %
<b>Switching frequency</b>	10000 Hz
<b>Turn-off delay <math>t_{off}</math> max.</b>	0.05 ms
<b>Turn-on delay <math>t_{on}</math> max.</b>	0.05 ms
<b>Utilization category</b>	DC -13
<b>Voltage drop static max.</b>	3.1 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 gn, 11 ms
<b>EN 60068-2-6, Vibration</b>	55 Hz, amplitude 1 mm, 3x30 min
<b>ESD</b>	4A(8KV)
<b>IP rating</b>	IP67

Magnetic Sensors  
**BMF 07M-PS-D-2-SA4-S49-00,3**  
**Order Code: BMF00NR**



**Functional safety**

MTTF (40 °C) 330 a

**Material**

Housing material Brass, nickel plated  
 Housing material, surface protection nickel plated  
 Material jacket PUR  
 Material sensing surface PBTP  
 Surface protection nickel plated

**Mechanical data**

Dimension Ø 6.5 x 30 mm  
 Mounting Clamps  
 Size D6.5

**Output/Interface**

Switching output PNP normally open (NO)

**Range/Distance**

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

**Remarks**

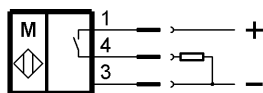
1) Install marker on cylinder wall  
 The switching distance depends on the magnet used. Switching distances of 20 mm can be achieved.  
 The sensor is functional again after the overload has been eliminated.  
 For more information about MTTF and B10d see MTTF / B10d Certificate

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**



Technical Drawings

