

1) Sensing surface, 2) see remarks, 3) see remarks, 4) see remarks



### Basic features

Application	Pneumatic cylinder with T-slot. For dimensions, see sketch in product view.
Approval/Conformity	cULus CE WEEE EAC RoHS
Basic standard	IEC 60947-5-2
Principle of operation	Magnetic field sensor
Scope of delivery	Cable clip for T-slot

### Display/Operation

Function indicator	yes
--------------------	-----

### Electrical connection

Cable	PUR, 0.5 m
Cable diameter D	2.50 mm
Connection	M12x1-Male, 4-pin, A-coded
Polarity reversal protected	yes
Protection against device mix-ups	no
Short-circuit protection	yes

### Electrical data

Assured switching field strength $H_a$	2 kA/m
Hysteresis $H$ max. (% of $H_n$ )	45 %
Load capacitance max. at $U_e$	1 $\mu$ F
No-load current $I_o$ max., undamped	6 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	3000 Hz
Turn-off delay $t_{off}$ max.	0.1 ms
Turn-on delay $t_{on}$ max.	0.1 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 gn, 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 235K-YS-C-2A-SA95-S4-00,5**  
**Order Code: BMF00ML**



**Material**

Clamping screw material	Bronze
Housing material	PA 12
Material jacket	PUR
Material sensing surface	PU

**Output/Interface**

Switching output	NPN Normally open (NO) PNP Normally open (NO)
------------------	--

**Mechanical data**

Dimension	23.5 x 5 x 5.5 mm
Mounting	can be installed in T-slot from above
Tightening torque	0.4 Nm

**Range/Distance**

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

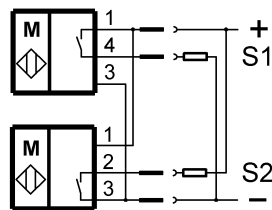
**Remarks**

- 2) Application area: pneumatic cylinder with t-slot. For dimensions, see sketch in product view.
- 3) Damping magnet axially magnetized  
Effective operating current  $I_e$  with thermally coupled installation in metal.
- 4) Allen wrench 2.0 mm: max. tightening torque 0.4 Nm. Screw driver 4x0.8 mm: max. tightening torque 1 Nm

**Connector Drawings**



**Wiring Diagrams**



## Help Views

