

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 UKCA WEEE |
| Basic standard | IEC 60947-5-2 |
| Principle of operation | Magnetic field sensor |

Display/Operation

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

Electrical connection

| | |
|--|-------------------------------|
| Cable | PUR with silicone tube, 0.3 m |
| Cable diameter D | 4.00 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 μ F |
| No-load current I_o max., undamped | 3 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 | 200 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 μ 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 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 235K-PS-C-2A-SA93-S4-00,3
Order Code: BMF00H5

BALLUFF

Interface

Switching output PNP normally open (NO)

Material

Housing material PA 12
Material jacket PUR, with silicone tube
Material sensing surface PU

Mechanical data

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

Range/Distance

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

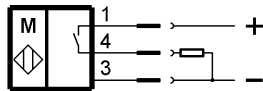
Remarks

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
2) Application area: pneumatic cylinder with t-slot. For dimensions, see sketch in product view.
UL-MARKINGS: - For use in NFPA 79 Applications only - Adapters providing field wiring means are available from the manufacturer. Refer to manufacturers information.

Connector Drawings



Wiring Diagrams



Help Views

