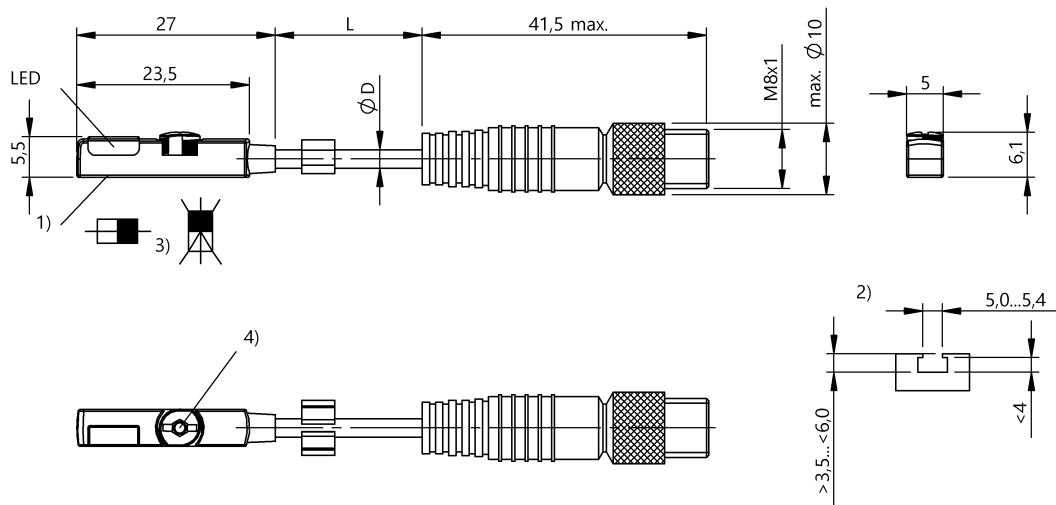




1) Sensing surface, 2) see remarks, 3) see remarks, 4) see remarks



Basic features

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

Display/Operation

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

Electrical connection

|                                   |                  |
|-----------------------------------|------------------|
| Cable diameter D                  | 2.50 mm          |
| Cable jacket, material            | PUR              |
| Cable length L                    | 0.30 m           |
| Connection                        | M8x1-Male, 3-pin |
| Polarity reversal protected       | no               |
| 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   | 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 $\mu$ 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 $g_n$ , 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-SA2-S49-00,3  
Order Code: BMF00C4

**BALLUFF**

Functional safety

MTTF (40 °C) 355 a

Interface

Switching output PNP normally open (NO)

Material

Housing material PA 12  
Material jacket PUR  
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

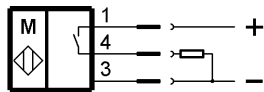
Damping magnet axially magnetized  
Effective operating current I<sub>e</sub> with thermally coupled installation in metal.  
2) Application area: pneumatic cylinder with t-slot. For dimensions, see sketch in product view.  
4) Allen wrench 2.0 mm: max. tightening torque 0.4 Nm. Screw driver 4x0.8 mm: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



## Help Views

