



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
Scope of delivery	Cable clip for T-slot
Trademark	Global

Display/Operation

Function indicator	yes
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Electrical connection

Cable	PUR, 0.5 m
Cable diameter D	2.50 mm
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 Ha	2 kA/m
Hysteresis H max. (% of Hn)	45 %
Load capacitance max. at Ue	1 µF
No-load current Io max., undamped	3 mA
Operating voltage Ub	10...30 VDC
Output resistance Ra	Open drain
Rated insulation voltage Ui	75 V DC
Rated operating current Ie	200 mA
Rated operating voltage Ue DC	24 V
Rated short circuit current	100 A
Rated switch field strength Hn	1.2 kA/m
Residual current Ir max.	80 µA
Ripple max. (% of Ue)	15 %
Switching frequency	3000 Hz
Turn-off delay toff max.	0.1 ms
Turn-on delay ton 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-PS-C-2A-SA2-S49-00,5
Order Code: BMF00CF

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 Ie 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



A circular connector drawing showing four pins. Pin 4 is at the top, pin 1 is on the left, and pin 3 is on the right.

Wiring Diagrams



A wiring diagram showing a magnetic sensor symbol (a diamond with an 'M' and a diagonal line) connected to three pins. Pin 1 is connected to a positive terminal (+). Pin 4 is connected to a load (represented by a rectangle). Pin 3 is connected to a negative terminal (-).

Help Views

