



1) Teach-In button, 2) Sensing surface, 3) Output 1 active, 4) Output 2 active, 5) LED Power, 6) Null point



Basic features

Application	Pneumatic cylinder with C-slot. For dimensions, see sketch in product view.
Approval/Conformity	CE UKCA cULus WEEE
Basic standard	IEC 60947-5-2
Operating mode	IO-Link Mode SIO Mode
Principle of operation	Magnetic field sensor
Scope of delivery	Cable clip for C-slot Offset screwdriver DIN 911 size 0.9
Teach function	8 switching points

Electrical data

Load capacitance max. at Ue	0.02 µF
No-load current I_o max., undamped	10 mA
Operating voltage U_b	10...30 VDC
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
Residual current I_r max.	10 µA
Ripple max. (% of U_e)	15 %
Switching frequency	15 Hz
Turn-off delay t_{off} max.	25 ms
Turn-on delay t_{on} max.	25 ms
Utilization category	DC -13
Voltage drop static max.	1.5 V

Display/Operation

Function indicator	yes
Power indicator	yes

Environmental conditions

Ambient temperature	-25...80 °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	2A (4 kV)/3A (8 kV)
Emission	Group 1, Class B
IP rating	IP67

Electrical connection

Cable	PUR, 0.3 m
Cable diameter D	2.40 mm
Connection	M8x1-Male, 4-pin
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Functional safety

MTTF (40 °C)	320 a
---------------------	-------

Magnetic Sensors
BMF 203K-H-PI-C-A8-SA1-S75-00,3
Order Code: BMF00MM



IO-Link

IO-Link Profil IDs	0x0001 SSP0
--------------------	-------------

Interface

Baud rate	COM2 (38.4 kBaud)
Interface	IO-Link 1.1
Interface setting option	Normally open/Normally closed Teach-In of switchpoints Hyst. (overtravel) /10 levels Factory setting Reset
Process data IN	Teaching active/inactive Inside/outside the measuring range 8 switchpoints active/inactive
Process data OUT	None
Process data cycle min.	2.6 ms
SIO mode	yes
Switching output	PNP normally open (NO)

Material

Clamping screw material	Stainless steel
Housing material	PA 12
Material jacket	PUR
Material sensing surface	PA 12

Mechanical data

Dimension	20 x 2.9 x 3.6 mm
Mounting part	can be installed in C-slot from above
Tightening torque clamping screw	0.07 Nm

Range/Distance

Reproducibility	0.2 mm
Teach range	-30...30 mm
Teach range max.	30 mm
Teach range min.	-30 mm

Remarks

Please refer to manual at balluff.com.
 Effective operating current I_e for thermally coupled installation of operating part on metal.
 Allen key 0.9 mm: max. tightening torque 0.07 Nm
 The sensor is functional again after the overload has been eliminated.
 Teach-In must be performed only when installed.
 Do not press key using a pointed tool.
 EMC: Surge resistance
 External protection circuit is required. Document 825345, Section 2.
 Switch point width BDC1...BDC8 preset from factory setting 5 to 1
 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

Help Views

