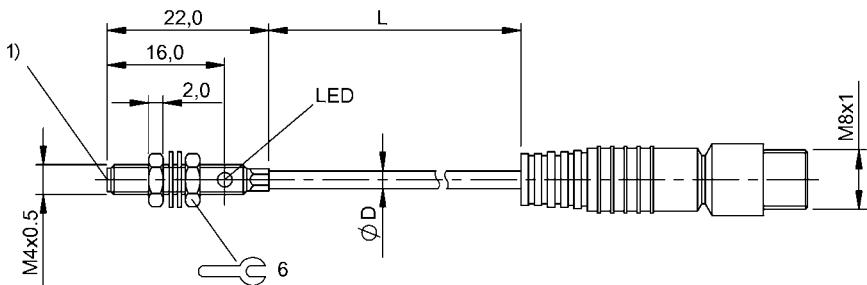


Inductive Sensors

BES M04EC-PSC10B-EP00,3-GS49

Order Code: BES040R

BALLUFF

1) Sensing surface

**Basic features**

Approval/Conformity	CE UKCA cULus WEEE
Basic standard	IEC 60947-5-2

Display/Operation

Function indicator	yes
Power indicator	no

Electrical connection

Cable diameter D	2,40 mm
Cable length L	0,3 m
Connection	M8x1-Male, 3-pin
Connection type	Cable with connector, 0,30 m, PUR
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	0.15 μ F
Min. operating current I _m	0 mA
No-load current I _o max., damped	5 mA
No-load current I _o max., undamped	2 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
Ready delay t _v max.	25 ms
Residual current I _r max.	10 μ A
Ripple max. (% of U _e)	10 %
Switching frequency	3500 Hz
Utilization category	DC-13
Voltage drop static max.	2 V

Environmental conditions

Ambient temperature	-25...70 °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
IP rating	IP67

Functional safety

MTTF (40 °C)	305 a
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Interface

Switching output PNP normally open (NO)

Material

Housing material Stainless steel

Material jacket PUR

Material sensing surface PBT

Mechanical data

Dimension Ø 4 x 22 mm

Installation for flush mounting

Size M4x0.5

Tightening torque 0.8 Nm

Range/Distance

Assured operating distance Sa 0.8 mm

Hysteresis H max. (% of Sr) 15.0 %

Rated operating distance Sn 1 mm

Real switching distance sr 1 mm

Repeat accuracy max. (% of Sr) 5.0 %

Switching distance marking ■■

Temperature drift max. (% of Sr) 10 %

Tolerance Sr ±10 %

Remarks

EMC: Surge resistance

External protection circuit is required. Document 825345, Section 2.

The sensor is functional again after the overload has been eliminated.

The temperature drift can be below -15°C and above +60°C, up to 15% of Sr.

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**