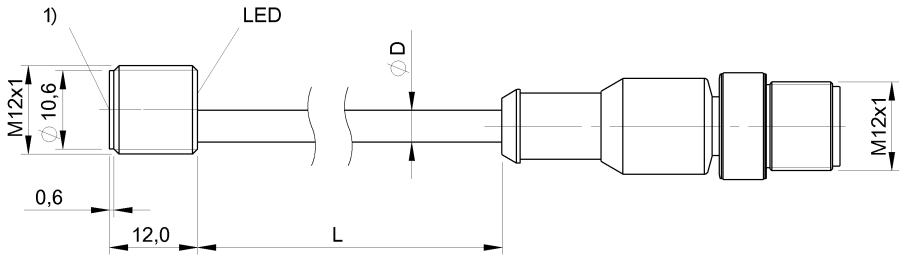
Inductive Sensors

BES M12EA-PSC40B-EP00,3-GS04
Order Code: BES0464



1) Sensing surface

Basic features

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

Display/Operation

Function indicator	yes

Electrical connection

Cable diameter D	4.50 mm
Cable length L	0.3 m
Connection	M12x1-Male, 4-pin, A-coded
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	0.5 µF
Min. operating current Im	0 mA
No-load current Io max., damped	6 mA
No-load current Io max., undamped	2 mA
Operating voltage Ub	10...30 VDC
Output resistance Ra	33.0 kOhm
Rated insulation voltage Ui	75 V DC
Rated operating current Ie	100 mA
Rated operating voltage Ue DC	24 V
Rated short circuit current	100 A
Ready delay tv max.	21 ms
Residual current Ir max.	20 µA
Ripple max. (% of Ue)	10 %
Switching frequency	1000 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 V

Environmental conditions

Ambient temperature	-40...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
IP rating	IP67

Functional safety

MTTF (40 °C)	305 a

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Interface

Switching output	PNP normally open (NO)

Material

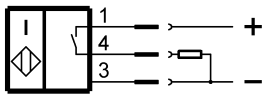
Housing material	1.4305 stainless steel
Material jacket	PUR
Material sensing surface	LCP

Mechanical data

Dimension	Ø 12 x 12 mm
Installation	for flush mounting
Size	M12x1
Tightening torque	4 Nm

Range/Distance

Assured operating distance Sa	3.2 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	4 mm
Real switching distance sr	4 mm
Repeat accuracy max. (% of Sr)	5.0 %
Switching distance marking	■■
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

Connector Drawings

Wiring Diagrams