



Basic features

Additional features	Selective ferrous
Approval/Conformity	CE UKCA cULus WEEE
Basic standard	IEC 60947-5-2
Target material	Selective ferrous

Display/Operation

Function indicator	yes
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Electrical connection

Connection	M12x1-Male, 4-pin
Polarity reversal protected	yes
Protection against device mix-ups	no
Short-circuit protection	yes

Electrical data

Magnetic field strength, interference field	100 kA/m
Min. operating current I_m	0 mA
No-load current I_0 max., damped	33 mA
No-load current I_0 max., undamped	25 mA
Operating voltage U_b	10...30 VDC
Output resistance R_a	33.0 kOhm + D
Rated insulation voltage U_i	75 V DC
Rated operating current I_e	200 mA
Rated short circuit current	100 A
Ready delay t_v max.	30 ms
Ripple max. (% of U_e)	15 %
Switching frequency	70 Hz
Voltage drop static max.	2 V

Environmental conditions

Ambient temperature	-25...70 °C
Contamination scale	3
IP rating	IP67
Magnetic field immune	magnetic field immune (AC/DC)

Functional safety

MTTF (40 °C)	260 a
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Interface

Switching output	PNP normally open (NO)
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Inductive Sensors
BES M12EI-PSC40S-S04G-S
Order Code: BES0510

BALLUFF

Material

Housing material	Stainless steel
Material sensing surface	Stainless steel

Mechanical data

Dimension	Ø 12 x 65 mm
Installation	for flush mounting
Size	M12x1
Tightening torque	20 Nm

Range/Distance

Assured operating distance Sa	3 mm
Rated operating distance Sn	4 mm
Real switching distance sr	4 mm
Switching distance marking	■ ■
Temperature drift max. (% of Sr)	15 %
Tolerance Sr	±10 %

Remarks

Installation permitted only in clamp without positive stop.
The sensor is functional again after the overload has been eliminated.
Installation notice: flush in Al or non-ferrous metal $Sr = 0.7 \times Sn$
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

