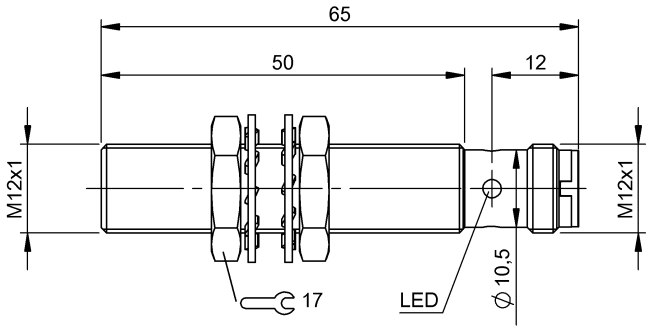
Inductive Sensors

BES M12EI-PSC40A-S04G-S
Order Code: BES04Z5



Basic features

Additional features	Factor 1 Weld immune
Approval/Conformity	CE cULus EAC WEEE
Basic standard	IEC 60947-5-2
Trademark	Factor 1

Display/Operation

Function indicator	yes
Power indicator	no

Electrical connection

Connection	M12x1-Male, 4-pin, A-coded
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	1 µF
Magnetic field strength, interference field	100 kA/m
Min. operating current Im	0 mA
No-load current Io max., damped	33 mA
No-load current Io max., undamped	25 mA
Operating voltage Ub	10...30 VDC
Output resistance Ra	33.0 kOhm + D
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
Ready delay tv max.	30 ms
Ripple max. (% of Ue)	15 %
Switching frequency	80 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
Magnetic field immune	magnetic field immune (AC/DC)

Functional safety

MTTF (40 °C)	260 a

Inductive Sensors

BES M12EI-PSC40A-S04G-S
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Interface

Switching output	PNP normally open (NO)

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

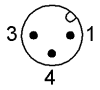
Assured operating distance Sa	3 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	4 mm
Real switching distance sr	4 mm
Repeat accuracy max. (% of Sr)	5.0 %
Switching distance marking	■■
Temperature drift max. (% of Sr)	15 %
Tolerance Sr	±10 %

Remarks

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

