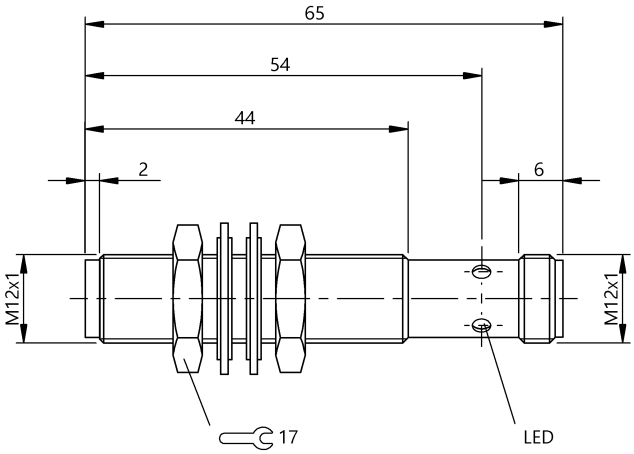
Inductive Sensors

BES M12EG1-PSC20S-S04G-S
Order Code: BES02Z3



Basic features

Additional features	Selective ferrous
Approval/Conformity	CE WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Inductive sensor
Target material	Selective ferrous

Display/Operation

Function indicator	yes
Power indicator	yes

Electrical connection

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

Electrical data

Min. operating current Im	0 mA
No-load current Io max., damped	14 mA
No-load current Io max., undamped	14 mA
Operating voltage Ub	10...30 VDC
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.	20 ms
Residual current Ir max.	10 µA
Ripple max. (% of Ue)	15 %
Switching frequency	100 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)	990 a

Interface

Switching output	PNP normally open (NO)

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Material

Housing material	Stainless steel
Material sensing surface	Stainless steel

Mechanical data

Dimension	Ø 12 x 65 mm
Installation	for flush mounting
Mounting length	44.00 mm
Size	M12x1
Tightening torque	15 Nm

Range/Distance

Assured operating distance Sa	1.6 mm
Hysteresis H max. (% of Sr)	20.0 %
Rated operating distance Sn	2 mm
Real switching distance sr	2 mm
Repeat accuracy max. (% of Sr)	5.0 %
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

Remarks

EMC: Per EN60947-5-2:1998+A1:1999+A2:2004 Section 7.2.6. only when used with connector BKS S19-14-.. Shield connected at both ends.
The sensor is functional again after the overload has been eliminated.
Ferrous - Detects ferromagnetic steel
Non-Ferrous metals (such as aluminum, copper, brass) and austenitic steel are ignored.
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 (Schematic)