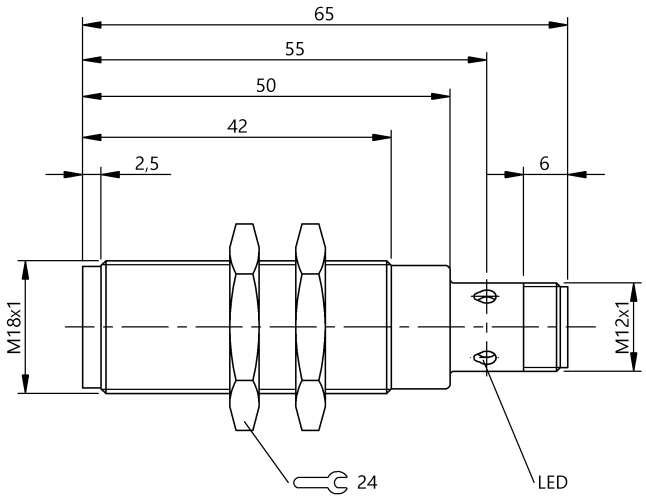
Inductive Sensors

BES M18EG1-PSC50S-S04G-S
Order Code: BES02Z9



Basic features

Additional features	Selective ferrous
Approval/Conformity	CE EAC cULus WEEE
Basic standard	IEC 60947-5-2
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	10 mA
No-load current Io max., undamped	10 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	15 Hz
Utilization category	DC -13
Voltage drop static max.	2 V

Environmental conditions

Ambient temperature	-40...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 18 x 65 mm
Installation	for flush mounting
Size	M18x1
Tightening torque	30 Nm

Range/Distance

Assured operating distance Sa	4.1 mm
Hysteresis H max. (% of Sr)	10.0 %
Rated operating distance Sn	5 mm
Real switching distance sr	5 mm
Repeat accuracy max. (% of Sr)	5.0 %
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

Remarks

EMC: Achieves severity level only with shielded connector BKSS19-14-... Connect shield to 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

