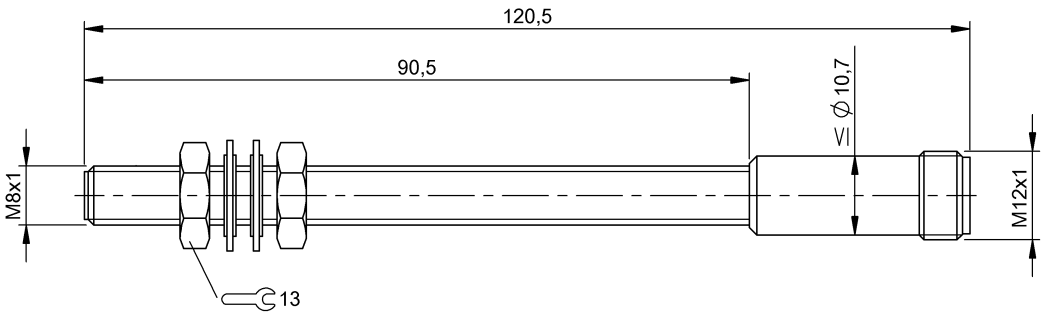
Inductive Sensors

BES 516-343-SA11
Order Code: BES0366



Basic features

Approval/Conformity	CE UKCA cULus WEEE
Base type deviation	Lg
Basic standard	IEC 60947-5-2
Principle of operation	Inductive sensor

Display/Operation

Function indicator	no
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	no

Electrical data

Load capacitance max. at Ue	1 µF
Min. operating current Im	0 mA
No-load current Io max., damped	25 mA
No-load current Io max., undamped	8 mA
Operating voltage Ub	10...30 VDC
Output resistance Ra	4.7 kOhm + D
Rated insulation voltage Ui	75 V DC
Rated operating current Ie	150 mA
Rated operating voltage Ue DC	24 V
Rated short circuit current	100 A
Ready delay tv max.	10 ms
Residual current Ir max.	80 µA
Ripple max. (% of Ue)	15 %
Switching frequency	1000 Hz
Utilization category	DC -13
Voltage drop static max.	1.5 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	NPN normally open (NO)

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Material

Housing material	Stainless steel
Material sensing surface	PBT

Mechanical data

Dimension	Ø 8 x 120.5 mm
Installation	for flush mounting
Mounting length	90.50 mm
Size	M8x1
Tightening torque	5 Nm

Range/Distance

Assured operating distance Sa	1.2 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	1.5 mm
Real switching distance sr	1.5 mm
Repeat accuracy max. (% of Sr)	5.0 %
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

Remarks

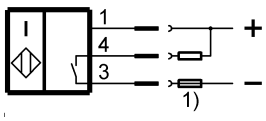
With connector, e.g. BKS-S 20-... total length = switch length +18 mm.
After a short circuit interrupt operating voltage Ub for a short time or damp and undamp the sensor.
Recommendation: After a short circuit check the device for proper function.
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After a short circuit interrupt operating voltage Ub for a short time or damp and undamp the sensor.
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)



1) For SCP see electrical data