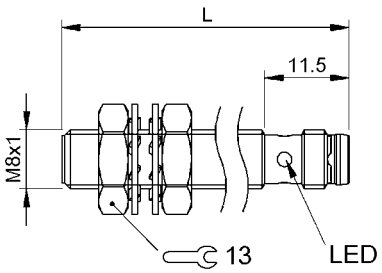
Inductive Sensors

BES 516-324-S49-C
Ordercode: BES01AW



Display/Operation

Function indicator	yes
Power indicator	no

Electrical connection

Connection	M8x1-Male, 3-pole
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	1 µF
No-load current Io undamped max.	2 mA
Operating voltage Ub	10…30 VDC
Output resistance Ra	33.0 kOhm
Polarity reversal protected	yes
Protection class	II
Rated insulation voltage Ui	250 V AC
Rated operating current Ie	200 mA
Rated operating voltage Ue DC	24 V
Rated short circuit current	100 A
Ready delay tv max.	25 ms
Repeat accuracy max. (% of Sr)	5.0 %
Residual current Ir max.	10 µA
Residual ripple max. (% of Ue)	10 %
Switching frequency	3000 Hz
Utilization category	DC-13
Voltage drop static max.	2.5 V

Environmental conditions

Ambient temperature	-25…70 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 gn, 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
IP rating	IP68

Functional safety

MTTF (40 °C)	595 a

General data

Approval/Conformity	CE cULus EAC
Basic standard	IEC 60947-5-2

Material

Housing material	Stainless steel
Material sensing surface	PBT

Mechanical data

Dimension	Ø 8 x 55 mm
Installation	flush
Size	M8x1
Tightening torque	8 Nm

Output/Interface

Switching output	PNP normally open (NO)

Range/Distance

Assured operating distance Sa	1.2 mm
Effective operating distance Sr	1.5 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	1.5 mm

Switching distance marking	▮
Temperature drift max. (% of Sr)	10 %

Remarks

The sensor is functional again after the overload has been eliminated.

For further information about the 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 view



Wiring Diagram

