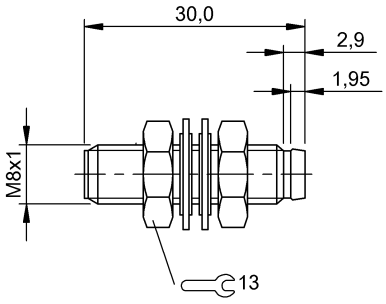
Inductive Sensors

BES 516-324-E5-D-S49
Order Code: BES00NP



LISTED IND. CONT. EQ. 81U2
for use in the secondary of a class 2 source of supply

Basic features

Approval/Conformity	CE cULus WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Inductive sensor

Display/Operation

Function indicator	no
Power indicator	no

Electrical connection

Connection	M8x1-Male, 3-pin
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	1 µF
Min. operating current Im	0 mA
No-load current Io max., damped	20 mA
No-load current Io max., undamped	12 mA
Operating voltage Ub	10...30 VDC
Output resistance Ra	4.8 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.	10 ms
Residual current Ir max.	80 µA
Ripple max. (% of Ue)	15 %
Switching frequency	1500 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 g_n, 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
IP rating	IP65

Interface

Switching output	PNP normally open (NO)

Material

Housing material	Stainless steel
Material sensing surface	PBT

Inductive Sensors

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Mechanical data

Dimension	Ø 8 x 30 mm
Installation	for flush mounting
Mounting length	27.10 mm
Size	M8x1
Tightening torque	5 Nm/10 Nm

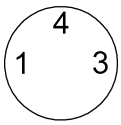
Range/Distance

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

The sensor is functional again after the overload has been eliminated.
With connector, e.g. BKS-S 49-... total length = switch length +12 mm.
EMC: Surge resistance
External protection circuit is required. Document 825345, Section 2.

Connector Drawings



Wiring Diagrams (Schematic)

