



Basic features

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

Display/Operation

Function indicator	yes
Power indicator	no

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

Load capacitance max. at U_e	1 μ F
Min. operating current I_m	5 mA
Operating voltage U_b	10...55 VDC
Rated insulation voltage U_i	75 V DC
Rated operating current I_e	130 mA
Rated operating voltage U_e DC	24 V
Rated short circuit current	100 A
Ready delay t_v max.	10 ms
Residual current I_r max.	500 μ A
Ripple max. (% of U_e)	15 %
Switching frequency	3000 Hz
Utilization category	DC -13
Voltage drop static max.	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)	610 a
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Interface

Switching output	Non-polarized normally closed (NC)
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Material

Housing material	Stainless steel
Material sensing surface	PBT

Mechanical data

Dimension	$\varnothing 8 \times 70.5$ mm
Installation	for flush mounting
Size	M8x1
Tightening torque	5 Nm

Inductive Sensors
BES 516-527-S4-H
Order Code: **BES031N**



Range/Distance

Assured operating distance Sa	1.2 mm
Hysteresis H max. (% of Sr)	20.0 %
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

EMC: External protection circuit required, see instruction for EMC protection circuit 825345.

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

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

