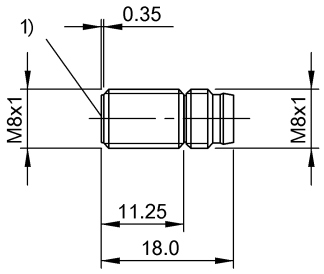
Inductive Sensors

BES M08EA-NSD20B-S49G
Order Code: BES01P1



1) Sensing surface

Basic features

Approval/Conformity	CE UKCA 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	0.2 µF
Min. operating current Im	1 mA
No-load current Io max., damped	14 mA
No-load current Io max., undamped	3 mA
Operating voltage Ub	10...30 VDC
Output resistance Ra	Open collector
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.	20 ms
Residual current Ir max.	10 µA
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 g_n, 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
IP rating	IP67

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 18 mm
Installation	for flush mounting
Mounting length	10.90 mm
Size	M8x1
Tightening torque	4 Nm

Range/Distance

Assured operating distance Sa	1.6 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	2 mm
Real switching distance sr	2 mm
Repeat accuracy max. (% of Sr)	5.0 %
Switching distance marking	■■
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

Remarks

The sensor is functional again after the overload has been eliminated.
EMC: EMC protection circuit required, see 825345. IVW: 2.2
For mounting and installation see Accessories section

Connector Drawings



Wiring Diagrams (Schematic)

