



IND. CONT. EQ.
81U2
Class 2 Type 1



Basic features

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

Display/Operation

Function indicator	yes
Power indicator	no

Electrical connection

Connection	M8x1-Male, 3-pin
Polarity reversal protected	yes
Protection against device mix-ups	no
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	1 µF
No-load current I_o max., damped	11 mA
No-load current I_o max., undamped	7 mA
Operating voltage U_b	10...30 VDC
Output resistance R_a	100.0 kOhm
Protection class	II
Rated insulation voltage U_i	75 V DC
Rated operating current I_e	200 mA
Rated operating voltage U_e DC	24 V
Rated short circuit current	100 A
Ready delay t_v max.	40 ms
Residual current I_r max.	10 µA
Ripple max. (% of U_e)	10 %
Switching frequency	1200 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 gn, 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
Protection degree	IP68

Functional safety

MTTF (40 °C)	584 a
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Inductive Sensors
BES M08MI-NSC30B-S49G
Order Code: BES054R

BALLUFF

Material

Housing material	Brass, Nickel-free coated
Material sensing surface	PBT
Surface protection	Nickel-free coated

Mechanical data

Dimension	Ø 8 x 60 mm
Installation	for flush mounting
Size	M8x1
Tightening torque	3 Nm

Output/Interface

Switching output	NPN normally open (NO)
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Range/Distance

Assured operating distance Sa	2.4 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	3 mm
Real switching distance sr	3 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.
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

