



## Basic features

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

## Display/Operation

Function indicator	yes
Power indicator	no

## Electrical connection

Connection	M12x1-Male, 3-pin, A-coded
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

## Electrical data

Load capacitance max. at $U_e$	1 $\mu$ F
Min. operating current $I_m$	0 mA
No-load current $I_o$ max., damped	7 mA
No-load current $I_o$ max., undamped	2 mA
Operating voltage $U_b$	10...30 VDC
Output resistance $R_a$	33.0 kOhm
Protection class	II
Rated insulation voltage $U_i$	250 V AC
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.	25 ms
Residual current $I_r$ max.	10 $\mu$ A
Ripple max. (% of $U_e$ )	15 %
Switching frequency	4000 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 V

## Environmental conditions

Ambient temperature	-25...70 °C, Temperature drift max. (% Sr) > 15% valid from 50...70 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 g <sub>n</sub> , 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
IP rating	IP68

## Functional safety

MTTF (40 °C)	595 a
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Inductive Sensors  
**BES M08EH-NSC40F-S04G**  
**Order Code: BES001A**



**Interface**

Switching output NPN normally open (NO)

**Material**

Housing material Stainless steel  
 Material sensing surface PBT

**Mechanical data**

Dimension Ø 8 x 63 mm  
 Installation non-flush  
 Size M8x1  
 Tightening torque 8 Nm

**Range/Distance**

Assured operating distance Sa 3.2 mm  
 Hysteresis H max. (% of Sr) 15.0 %  
 Rated operating distance Sn 4 mm  
 Real switching distance sr 4 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.  
 In rare cases, the function of the sensor may be impaired during contact with water  
 it is fully functional again after drying  
 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**

