



Basic features

Approval/Conformity	CE cULus UKCA WEEE CCC
Basic standard	IEC 60947-5-2
Principle of operation	Inductive sensor
Scope of delivery	2x nut M12x1 Toothed washer D13 (2x)

Display/Operation

Diagnostic function	no
Function indicator	yes
Power indicator	no

Electrical connection

Connection	1/2"-20 UNF-2A-Male, 3-pin
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Current consumption min., undamped	1 mA
Min. operating current I_m	2 mA
Operating voltage U_b	10...300 VDC/20...265 VAC
Rated insulation voltage U_i	250 V AC
Rated operating current I_e	130 mA
Rated operating voltage U_e AC	110 V
Rated short circuit current	100 A
Ready delay t_v max.	70 ms
Utilization category	DC -13 AC-140
Voltage drop static max.	6 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, 1x5 min
IP rating	IP67

Functional safety

MTTF (40 °C)	476 a
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Interface

Switching output	Non-polarized normally open (NO)
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Material

Housing material	Brass, Chrome-plated
Material sensing surface	PBTP

Inductive Sensors
BES M12MH-UST40B-S21G
Order Code: BES05ZL



Mechanical data

Dimension	Ø 12 x 60 mm
Installation	for flush mounting
Mounting length	44 mm
Size	M12x1
Tightening torque	6 Nm

Range/Distance

Hysteresis H max. (% of Sr)	10.0 %
Rated operating distance Sn	4 mm
Real switching distance sr	4 mm
Repeat accuracy max. (% of Sr)	5.0 %
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

Remarks

Rated operating current $I_e \leq 200$ mA AC/DC ($\leq 50^\circ\text{C}$)

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 (Schematic)

