



Basic features

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

Display/Operation

Diagnostic function	no
Function indicator	yes
Power indicator	no

Electrical connection

Cable diameter D	5 mm
Cable length L	2 m
Conductor cross-section	0.34 mm ²
Connection type	2 m
Electrical version	2-wire
Number of conductors	2
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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Inductive Sensors
BES M12MI-UST40B-BV02
Order Code: **BES05ZM**

BALLUFF

Material

Housing material	Brass, Chrome-plated
Material sensing surface	PBTP

Mechanical data

Dimension	Ø 12 x 50 mm
Installation	for flush mounting
Size	M12x1
Tightening torque	6 Nm

Range/Distance

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

Remarks

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

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.

Wiring Diagrams

