



Basic features

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

Display/Operation

Function indicator	yes
Power indicator	no

Electrical connection

Cable diameter D	4.60 mm
Cable length L	2 m
Conductor cross-section	0.34 mm ²
Connection type	Cable, 2.00 m, PVC
Number of conductors	2
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at U _e	1 µF
Min. operating current I _m	5 mA
Operating voltage U _b	10...36 VDC
Rated insulation voltage U _i	75 V DC
Rated operating current I _e	100 mA
Rated operating voltage U _e DC	24 V
Rated short circuit current	100 A
Ready delay t _v max.	50 ms
Residual current I _r max.	600 µA
Ripple max. (% of U _e)	15 %
Switching frequency	500 Hz
Utilization category	DC -13
Voltage drop static max.	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	IP67

Functional safety

MTTF (40 °C)	315 a
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Material

Housing material	Brass
Material jacket	PVC
Material sensing surface	PA 12
Surface protection	Nickel-free coated

Inductive Sensors
BES M18MG-USC50B-BV02
Order Code: BES052A

BALLUFF

Mechanical data

Dimension	Ø 18 x 46 mm
Installation	for flush mounting
Size	M18x1
Tightening torque	25 Nm

Output/Interface

Switching output	non-polarized normally open (NO)
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Range/Distance

Assured operating distance Sa	4 mm
Hysteresis H max. (% of Sr)	20.0 %
Rated operating distance Sn	5 mm
Real switching distance sr	5 mm
Repeat accuracy max. (% of Sr)	5.0 %
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.

Wiring Diagrams

