



Basic features

Approval/Conformity	CE UKCA WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Inductive sensor

Display/Operation

Function indicator	yes
Power indicator	yes

Electrical connection

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	0 mA
No-load current I _o max., damped	20 mA
No-load current I _o max., undamped	10 mA
Operating voltage U _b	10...30 VDC
Output resistance R _a	33.0 kOhm + D
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.	30 ms
Residual current I _r max.	80 µA
Ripple max. (% of U _e)	15 %
Switching frequency	50 Hz
Utilization category	DC -13
Voltage drop static max.	3.5 V

Inductive Sensors
BES 517-385-MV-C
Order Code: BES0235

BALLUFF

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, 3x30 min
IP rating	IP67

Functional safety

MTTF (40 °C)	730 a
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Interface

Cable fitting, thread size	M20x1.5
Switching output	PNP normally open (NO)

Material

Housing material	PBT
Material sensing surface	PBT

Mechanical data

Connection cross-section	2.5 mm ²
Dimension	120 x 40 x 40 mm
Installation	non-flush
Size	40x40
Tightening torque	4...5 Nm (M20x1.5)
Tightening torque clamping screw	0.8 Nm

Range/Distance

Assured operating distance Sa	20 mm
	32 mm
Hysteresis H max. (% of Sr)	20.0 %
Rated operating distance Sn	25 mm
Real switching distance sr	40 mm
	25 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.
Factory setting Sn = 25 mm (switch position 1), in housing cover selectable to Sn = 40 mm (switch position 0).
LED 1: Function
LED 2: Operating voltage
Meets the requirements of VW-AG.
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 (Schematic)

