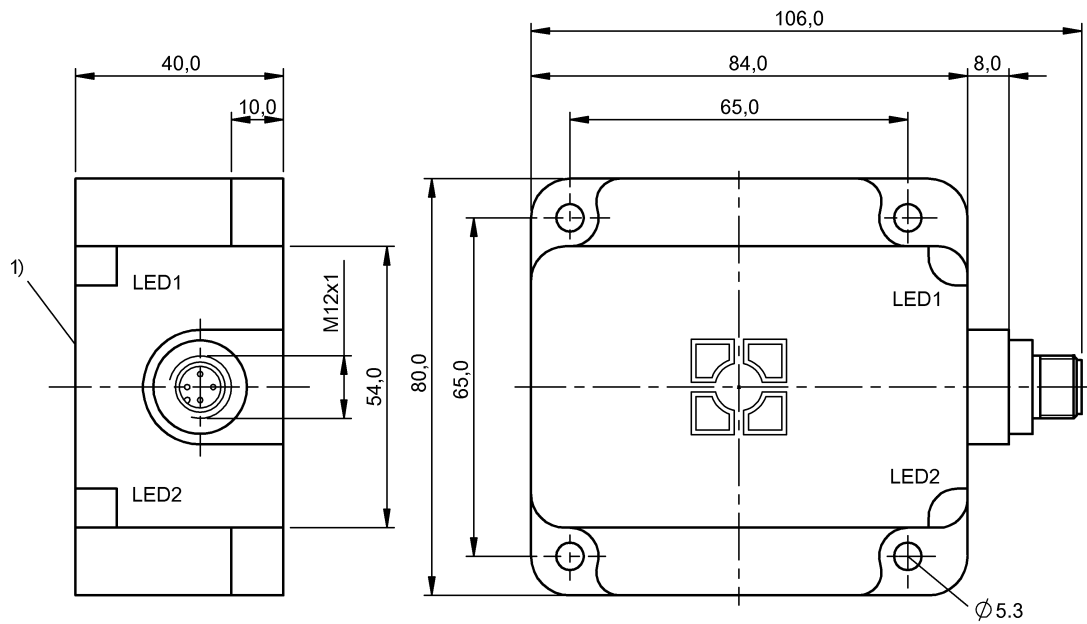
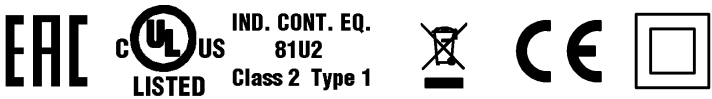




1) Sensing surface



Basic features

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

Display/Operation

Function indicator	yes
Power indicator	yes

Electrical connection

Connection	M12x1-Male, 4-pin, A-coded
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	0.5 μ F
Min. operating current I _m	0 mA
No-load current I _o max., damped	15 mA
No-load current I _o max., undamped	12 mA
Operating voltage U _b	10...55 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.	150 ms
Residual current I _r max.	20 μ A
Ripple max. (% of U _e)	10 %
Switching frequency	50 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 V

Inductive Sensors
BES Q80KA-PSH50F-S04Q
Order Code: BES0228

BALLUFF

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)	785 a
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Material

Housing material	PBT, GF30
Material sensing surface	PBT, GF30

Mechanical data

Dimension	106 x 80 x 40 mm
Installation	non-flush
Size	80x80
Tightening torque	3 Nm

Output/Interface

Switching output	PNP normally open (NO)
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Range/Distance

Assured operating distance Sa	40 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	50 mm
Real switching distance sr	50 mm
Repeat accuracy max. (% of Sr)	5.0 %
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

Remarks

LED 1: Function
LED 2: Operating voltage
The sensor is functional again after the overload has been eliminated.
Not for flush mounting: See installation instructions for inductive sensors with extended range 939228.
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

