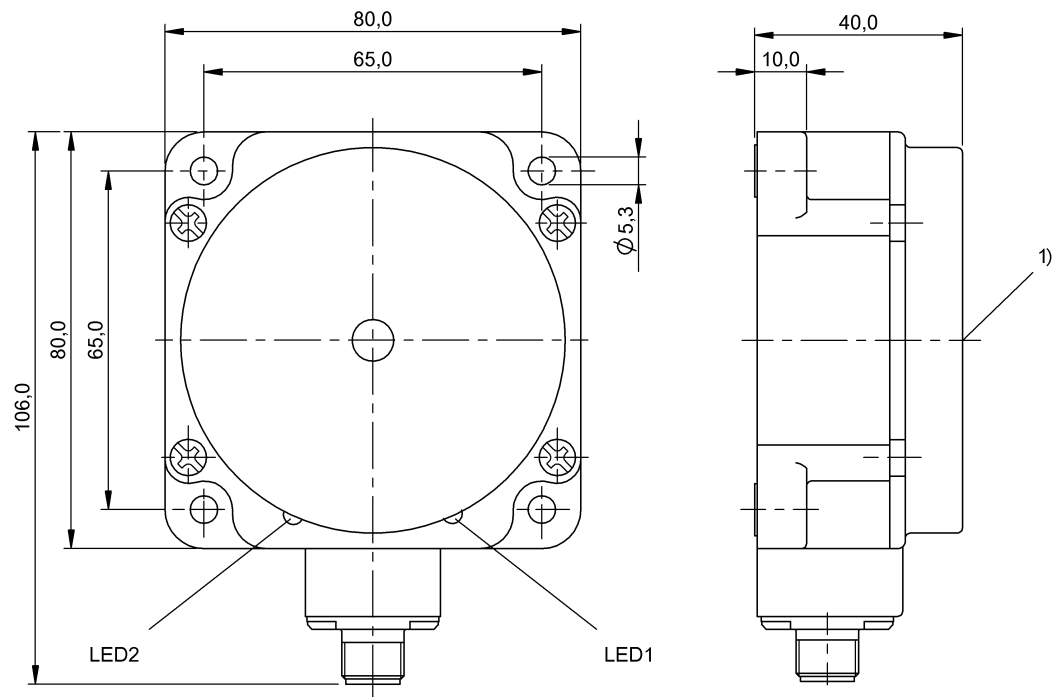
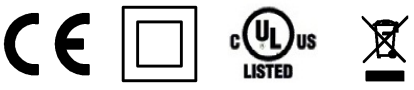


Inductive Sensors
BES 517-139-U5-H-S4
Order Code: BES023W



1) Sensing surface



Basic features

Approval/Conformity	CE
	cULus
	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	1 µF
Min. operating current Im	0 mA
No-load current Io max., damped	15 mA
No-load current Io max., undamped	15 mA
Operating voltage Ub	10...55 VDC
Output resistance Ra	33.0 kOhm + D/33.0 kOhm + D
Protection class	II
Rated insulation voltage Ui	250 V AC
Rated operating current Ie	200 mA
Rated operating voltage Ue DC	24 V
Rated short circuit current	100 A
Ready delay tv max.	20 ms
Residual current Ir max.	80 µA
Ripple max. (% of Ue)	15 %
Switching frequency	100 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 V

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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

Interface

Switching output	PNP normally open/normally closed (NO/NC)
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Material

Housing material	PBT
Material sensing surface	PBT

Mechanical data

Dimension	80 x 80 x 40 mm
Installation	non-flush
Size	80x80
Tightening torque	4...5 Nm (NPT 1/2")

Range/Distance

Assured operating distance Sa	40 mm
Hysteresis H max. (% of Sr)	20.0 %
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.

Connector Drawings



Wiring Diagrams

