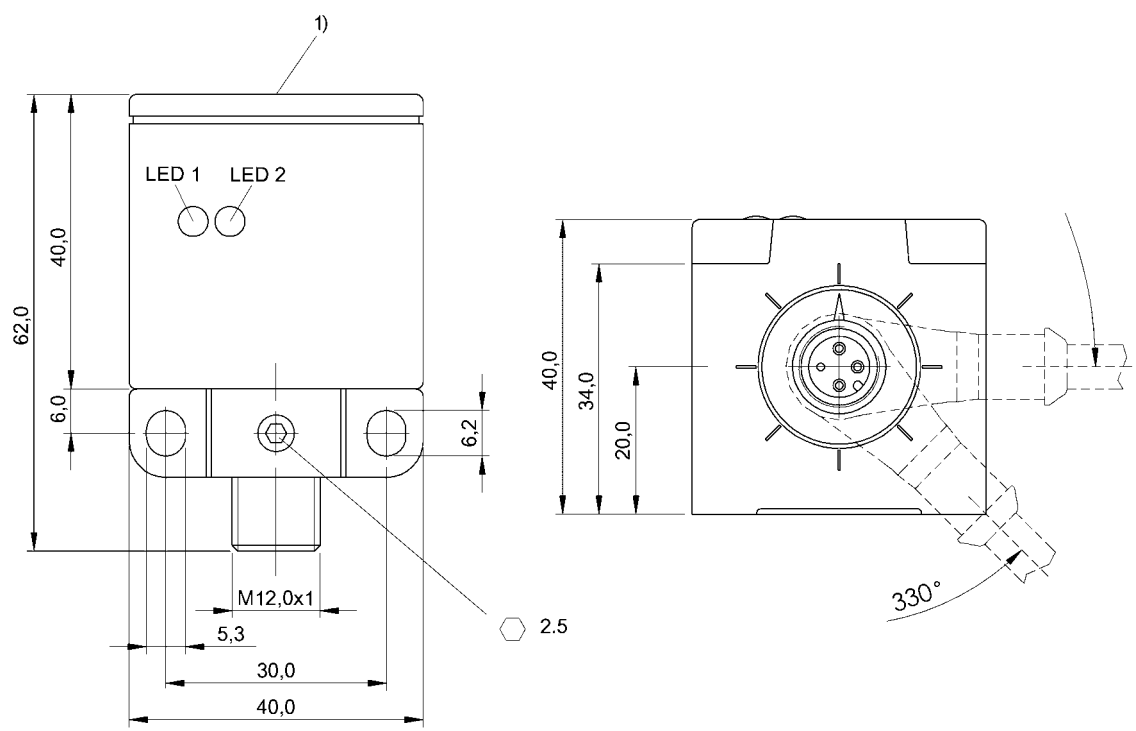
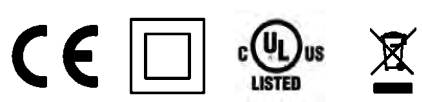


Inductive Sensors

BES Q40KFU-PAC20A-S04G-W01
Order Code: BES0457



1) Sensing surface



Basic features

Additional features	Factor 1
Approval/Conformity	CE cULus WEEE
Basic standard	IEC 60947-5-2
Trademark	Factor 1

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 U _e	1 µF
Magnetic field strength, interference field	100 kA/m
Min. operating current I _m	0 mA
No-load current I _o max., damped	20 mA
No-load current I _o max., undamped	15 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	400 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 V

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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
Magnetic field immune	magnetic field immune (AC/DC)

Interface

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

Housing material	PBT, partly coated
Material sensing surface	ceramic coated

Mechanical data

Dimension	40 x 40 x 62 mm
Installation	for flush mounting
Size	40x40

Range/Distance

Assured operating distance S _a	15.7 mm
Hysteresis H max. (% of S _r)	15.0 %
Rated operating distance S _n	20 mm
Real switching distance s _r	20 mm
Repeat accuracy max. (% of S _r)	5.0 %
Switching distance marking	■ ■
Temperature drift max. (% of S _r)	10 %
Tolerance S _r	±10 %

Remarks

The sensor is functional again after the overload has been eliminated.
Switching distance and tolerance data apply to the sensing surface location shown.
LED 1: Function
LED 2: Operating voltage
S_n: reduced by the coating thickness of 0.3 mm.

Connector Drawings



Wiring Diagrams

