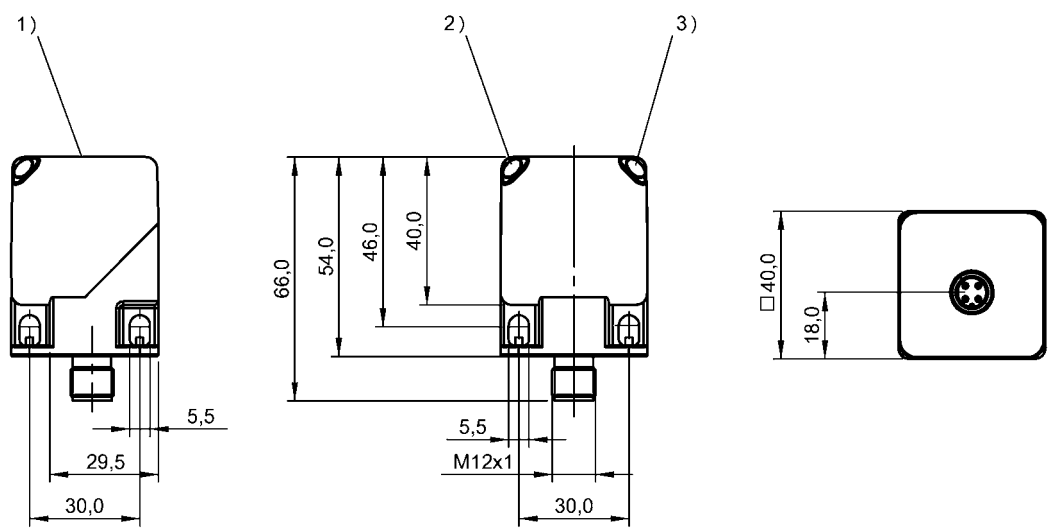


Inductive Sensors

BES Q40KFU-PSC20B-S04G-012

Order Code: BES0306

BALLUFF



1) Sensing surface, 2) LED yellow, 3) LED green



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 U _e	0.15 µF
Min. operating current I _m	0 mA
No-load current I _o max., damped	20 mA
No-load current I _o max., undamped	20 mA
Operating voltage U _b	10...36 VDC
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.	23 ms
Residual current I _r max.	100 µA
Switching frequency	100 Hz
Utilization category	DC -12
Voltage drop static max.	2.5 V

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)	1590 a
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Interface

Switching output PNP normally open (NO)

Material

Housing material PA
Material sensing surface PA

Mechanical data

Dimension 40 x 40 x 66 mm
Installation for flush mounting
Size 40x40

Range/Distance

Assured operating distance Sa 16.2 mm
Hysteresis H max. (% of Sr) 20.0 %
Rated operating distance Sn 20 mm
Real switching distance sr 20 mm
Repeat accuracy max. (% of Sr) 5.0 %
Switching distance marking ■■
Temperature drift max. (% of Sr) 10 %
Tolerance Sr ±10 %

Remarks

The sensor is functional again after the overload has been eliminated.
LED yellow: Function
LED green: Power
M12 connector
rotation, locking latch
Sensing surface can be set in 5 positions
Switching distance and tolerance data apply to the sensing surface location shown.
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

