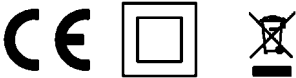
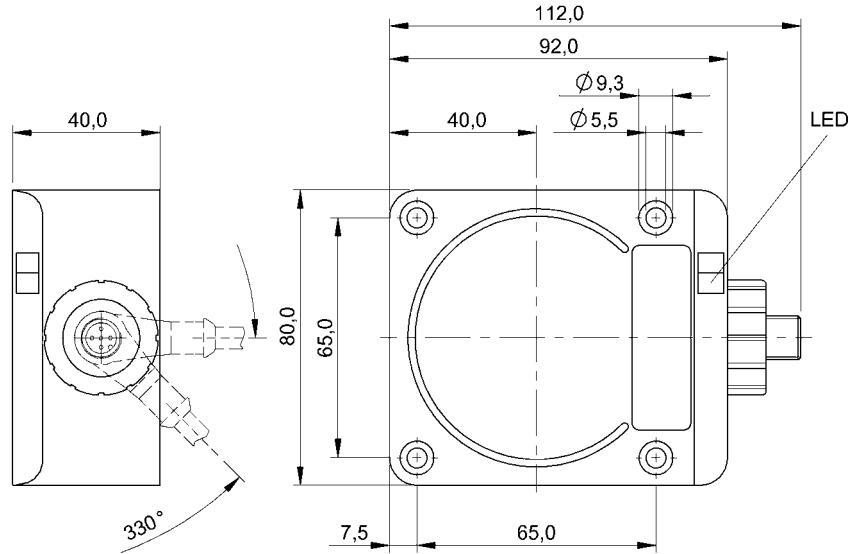


Inductive Sensors

BES Q80KA-GSH50B-S04Q

Order Code: BES030A

BALLUFF



Basic features

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

Display/Operation

Function indicator	yes
Power indicator	no

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	4 mA
Operating voltage Ub	10...55 VDC
Protection class	II
Rated insulation voltage Ui	250 V AC
Rated operating current Ie	400 mA
Rated operating voltage Ue DC	24 V
Rated short circuit current	100 A
Ready delay tv max.	30 ms
Residual current Ir max.	600 µA
Switching frequency	90 Hz
Utilization category	DC -13
Voltage drop static max.	4.6 V

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
IP rating	IP67

Functional safety

MTTF (40 °C)	1630 a
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Interface

Switching output	polarized normally open (NO)
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Material

Housing material	PPE
Material sensing surface	PPE

Mechanical data

Dimension	112 x 80 x 40 mm
Installation	for flush mounting
Size	80x80

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

When flush mounted in steel the switching distance is 50 mm.
Non-flush mounting reduces the switching distance to 5 mm.
Flush mounting in non-ferrous materials can further reduce the switching distance.
The sensor is functional again after the overload has been eliminated.
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

