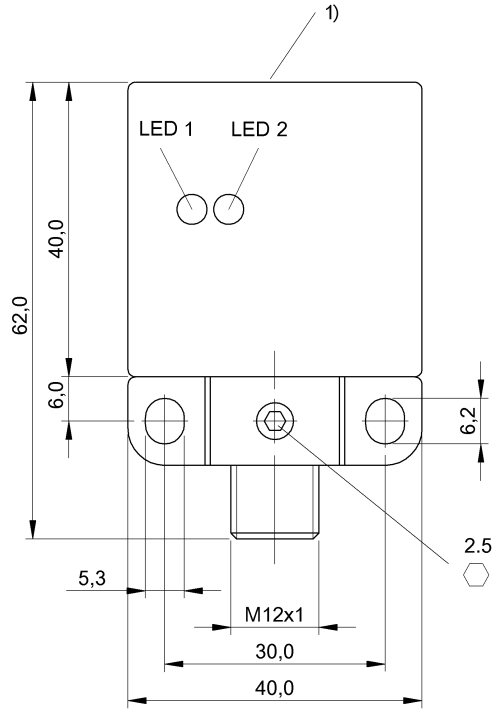
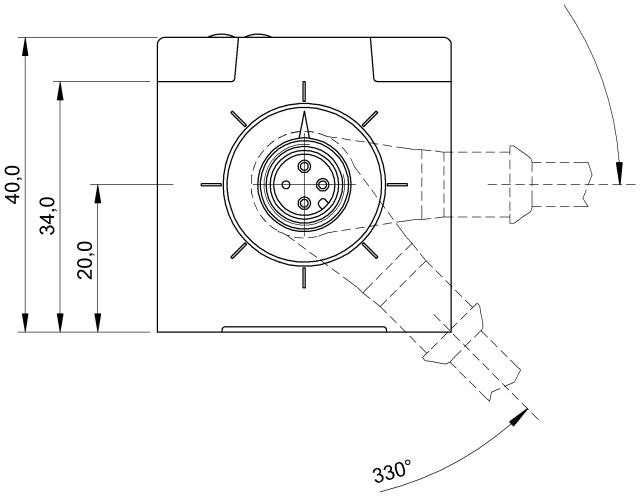
Inductive Sensors

BES Q40KFU-PAC25E-S04G
Order Code: BES021A





1) Sensing surface

Basic features

Additional features	Factor 1
Approval/Conformity	cULus CE UKCA 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 Ue	1 µF
Magnetic field strength, interference field	100 kA/m
Min. operating current Im	0 mA
No-load current Io max., damped	20 mA
No-load current Io max., undamped	15 mA
Operating voltage Ub	10...30 VDC
Output resistance Ra	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.	30 ms
Residual current Ir max.	80 µA
Ripple max. (% of Ue)	15 %
Switching frequency	250 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 V

BES Q40KFU-PAC25E-S04G
Order Code: BES021A

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)

Functional safety

MTTF (40 °C)	520 a

Interface

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

Material

Housing material	PBT
Material sensing surface	PBT

Mechanical data

Dimension	40 x 40 x 62 mm
Installation	non-flush
Size	40x40

Range/Distance

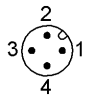
Assured operating distance Sa	2.2 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	25 mm
Real switching distance sr	25 mm
Repeat accuracy max. (% of Sr)	5.0 %
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

Remarks

LED 1: Function
LED 2: Operating voltage
Switching distance and tolerance data apply to the sensing surface location shown.
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 (Schematic)