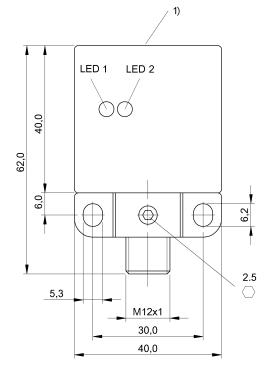
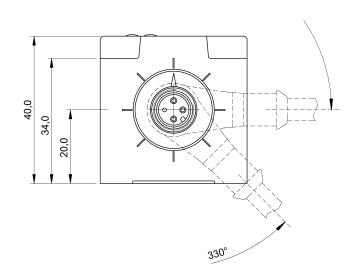
# Inductive Sensors BES Q40KFU-PAC15A-S04G Order Code: BES022K

BALLUFF





## 1) Sensing surface



### **Basic features**

Additional features	Factor 1
Approval/Conformity	CE
	cULus
	EAC
	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	ves
	<b>y</b>

### **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 lo max., damped	20 mA
No-load current lo max., undamped	15 mA
Operating voltage Ub	1030 VDC
Output resistance Ra	33.0 kOhm + D
Protection class	II
Rated insulation voltage Ui	250 V AC
Rated operating current le	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	400 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 V

Short-circuit protection

yes

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Environmental condit	ions	Material	
Ambient temperature	-2570 °C	Housing material	PBT
Contamination scale	3	Material sensing surface	PBT
EN 60068-2-27, Shock	Half-sinus, 30 g <sub>n</sub> , 11 ms		
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min	Mechanical data	
IP rating	IP67	Dimension	40 x 40 x 62 mm
Magnetic field immune	magnetic field immune (AC/DC)		
		Installation	for flush mounting
Functional safety		Size	40x40
MTTF (40 °C)	520 a	Range/Distance	
Interfees		Assured operating distance Sa	12.2 mm
Interface		Hysteresis H max. (% of Sr)	15.0 %
Switching output	PNP normally open/normally	Rated operating distance Sn	15 mm
	closed (NO/NC)	Real switching distance sr	15 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**

