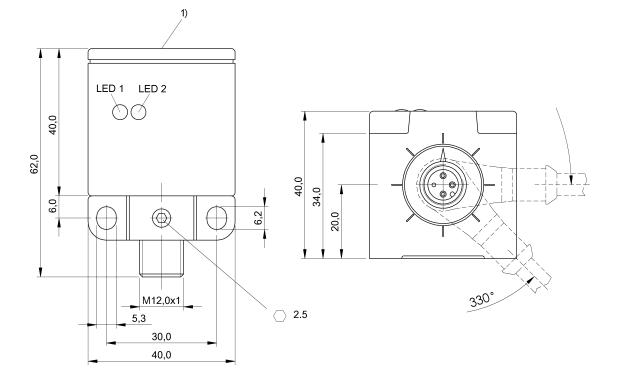
# Inductive Sensors BES Q40KFU-PAC20A-S04G Order Code: BES0216

# BALLUFF



## 1) Sensing surface



#### **Basic features**

### **Electrical data**

Approval/Conformity	CE	Load capacitance max. at Ue	1 µF
	cULus	Magnetic field strength, interference	100 kA/m
	EAC	field	
	WEEE	Min. operating current Im	0 mA
Basic standard	IEC 60947-5-2	No-load current lo max., damped	20 mA
Trademark	Factor 1	No-load current lo max., undamped	15 mA
		Operating voltage Ub	1030 VDC
Display/Operation		Output resistance Ra	33.0 kOhm + D
Function indicator	ves	Protection class	II
Power indicator	ves	Rated insulation voltage Ui	250 V AC
	<b>J</b> 00	Rated operating current le	200 mA
Electrical connection		Rated operating voltage Ue DC	24 V
Electrical connection		Rated short circuit current	100 A
Connection	M12x1-Male, 4-pin, A-coded	Ready delay tv max.	30 ms
Polarity reversal protected	yes	Residual current Ir max.	80 µA
Protection against device mix-ups	yes	Ripple max. (% of Ue)	15 %
Short-circuit protection	yes	Switching frequency	400 Hz
		Utilization category	DC -13
		Voltage drop static max.	2.5 V

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±10 %

## Environmental conditions

Ambient temperature	-2570 °C	Dimension	40 x 40 x 62 mm	
Contamination scale	3	Installation	for flush mounting	
EN 60068-2-27, Shock	Half-sinus, 30 gn, 11 ms	Size	40x40	
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min			
Magnetic field immune	magnetic field immune (AC/DC)	Output/Interface		
Protection degree	IP67	Switching output	PNP normally open/normally closed (NO/NC)	
Functional safety				
MTTF (40 °C)	520 a	Range/Distance		
		Assured operating distance Sa	16 mm	
Material		Hysteresis H max. (% of Sr)	15.0 %	
Housing material	PBT	Rated operating distance Sn	20 mm	
Material sensing surface	РВТ	Real switching distance sr	20 mm	
-		Repeat accuracy max. (% of Sr)	5.0 %	
		Switching distance marking	••	
		Temperature drift max. (% of Sr)	10 %	

**Tolerance Sr** 

**Mechanical data** 

#### **Remarks**

The sensor is functional again after the overload has been eliminated.

LED 1: Function

LED 2: Operating voltage

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**

