



1) Sensing surface



Basic features

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

Display/Operation

Function indicator	no
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 U_e	9 μ F
Min. operating current I_m	0 mA
No-load current I_0 max., damped	5.4 mA
No-load current I_0 max., undamped	2.2 mA
Operating voltage U_b	10...35 VDC
Rated operating current I_e	120 mA
Rated operating voltage U_e DC	24 V
Ready delay t_v max.	4 ms
Residual current I_r max.	2 μ A
Ripple max. (% of U_e)	20 %
Switching frequency	100 Hz
Utilization category	DC -13
Voltage drop static max.	1.3 V

Environmental conditions

Ambient temperature	0...150 °C
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
Protection degree	IP67

Inductive Sensors
BES Q40KG-PSD25F-S04G
Order Code: BES05N9

BALLUFF

Functional safety

MTTF (40 °C) 813 a

Material

Housing material Stainless steel (1.4305)
LCP
Material sensing surface LCP

Mechanical data

Dimension 40 x 40 x 70.7 mm
Installation non-flush
Size 40x40

Output/Interface

Switching output PNP normally open (NO)

Range/Distance

Assured operating distance Sa 20.2 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) 1.87 %
Tolerance Sr ±15 %

Connector Drawings



Wiring Diagrams

