



1) Sensing surface, 2) LED yellow, 3) LED green



UL LISTED
 IND. CONT. EQ
 11ZA
 for use in the secondary of
 a class 2 source of supply

Basic features

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	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	0.15 µF
Magnetic field strength, interference field	100 kA/m
Min. operating current I_m	0 mA
No-load current I_o max., damped	20 mA
No-load current I_o max., undamped	20 mA
Operating voltage U_b	10...30 VDC
Protection class	II
Rated insulation voltage U_i	250 V AC
Rated operating current I_e	200 mA
Rated operating voltage U_e DC	24 V
Rated short circuit current	100 A
Ready delay t_v max.	20 ms
Residual current I_r max.	100 µA
Switching frequency	200 Hz
Utilization category	DC -12
Voltage drop static max.	2.5 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
Magnetic field immune	magnetic field immune (AC/DC)
Protection degree	IP67

Functional safety

MTTF (40 °C)	1165 a
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Inductive Sensors
BES Q40KFU-PSC20A-S04G-012
Order Code: BES0305



Material

Housing material	PA
Material sensing surface	PA/Teflon

Mechanical data

Dimension	40 x 40 x 66 mm
Installation	for flush mounting
Size	40x40

Range/Distance

Assured operating distance Sa	16.2 mm
Hysteresis H max. (% of Sr)	20.0 %
Rated operating distance Sn	20 mm
Real switching distance sr	20 mm
Repeat accuracy max. (% of Sr)	3.0 %
Switching distance marking	■ ■
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

Output/Interface

Switching output	PNP normally open (NO)
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Remarks

The sensor is functional again after the overload has been eliminated.
 LED yellow: Function
 LED green: Power
 Switching distance and tolerance data apply to the sensing surface location shown.
 M12 connector
 rotation, locking latch
 Sensing surface can be set in 5 positions
 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

