



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



**Basic features**

Additional features	Factor 1
Approval/Conformity	CE cULus 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 Im	0 mA
No-load current Io max., damped	20 mA
No-load current Io max., undamped	20 mA
Operating voltage Ub	10...36 VDC
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.	15 ms
Residual current Ir 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
IP rating	IP67
Magnetic field immune	magnetic field immune (AC/DC)

**Functional safety**

MTTF (40 °C)	972 a
--------------	-------

Inductive Sensors  
**BES Q40KFU-PAC40E-S04G-012**  
Order Code: BES0304



**Interface**

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

**Material**

**Housing material** PA  
**Material sensing surface** PA/Teflon

**Mechanical data**

**Dimension** 40 x 40 x 66 mm  
**Installation** non-flush  
**Size** 40x40

**Range/Distance**

**Assured operating distance Sa** 32.4 mm  
**Hysteresis H max. (% of Sr)** 20.0 %  
**Rated operating distance Sn** 40 mm  
**Real switching distance sr** 40 mm  
**Repeat accuracy max. (% of Sr)** 5.0 %  
**Switching distance marking** ■■  
**Temperature drift max. (% of Sr)** 10 %  
**Tolerance Sr** ±10 %

**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**

