



1) Sensing surface



Basic features

| | |
|---------------------|-----------------------------|
| Additional features | Factor 1 |
| Approval/Conformity | CE UKCA 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 | 1 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 | 15 mA |
| Operating voltage U _b | 10...30 VDC |
| Output resistance R _a | 33.0 kOhm + D |
| 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. | 30 ms |
| Residual current I _r max. | 80 µA |
| Ripple max. (% of U _e) | 15 % |
| Switching frequency | 250 Hz |
| Utilization category | DC -13 |
| Voltage drop static max. | 2.5 V |

Inductive Sensors
BES Q40KFU-PAC35E-S04G
 Order Code: BES021H



Environmental conditions

| | |
|-------------------------|---------------------------------------|
| Ambient temperature | -10...70 °C |
| Contamination scale | 3 |
| EN 60068-2-27, Shock | Half-sinus, 30 g _n , 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) | 520 a |
|--------------|-------|

Interface

| | |
|------------------|-------------------------------------------|
| Switching output | PNP normally open/normally closed (NO/NC) |
|------------------|-------------------------------------------|

Material

| | |
|--------------------------|-----|
| Housing material | PBT |
| Material sensing surface | PBT |

Mechanical data

| | |
|--------------|-----------------|
| Dimension | 40 x 40 x 62 mm |
| Installation | non-flush |
| Size | 40x40 |

Range/Distance

| | |
|----------------------------------|---------|
| Assured operating distance Sa | 28.4 mm |
| Hysteresis H max. (% of Sr) | 15.0 % |
| Rated operating distance Sn | 35 mm |
| Real switching distance sr | 35 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

