



1) Sensing surface



Basic features

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

Display/Operation

| | |
|--------------------|-----|
| Function indicator | yes |
| 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 Ue | 0.15 µF |
| Min. operating current Im | 0 mA |
| No-load current Io max., damped | 10 mA |
| No-load current Io max., undamped | 10 mA |
| Operating voltage Ub | 10...30 VDC |
| Output resistance Ra | Open collector |
| Rated insulation voltage Ui | 75 V DC |
| Rated operating current Ie | 200 mA |
| Rated operating voltage Ue DC | 24 V |
| Rated short circuit current | 100 A |
| Ripple max. (% of Ue) | 15 % |
| Switching frequency | 50 Hz |
| Utilization category | DC -13 |
| Voltage drop static max. | 2 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 | IP65 |

Functional safety

| | |
|--------------|--------|
| MTTF (40 °C) | 1465 a |
|--------------|--------|

Interface

| | |
|------------------|------------------------|
| Switching output | PNP normally open (NO) |
|------------------|------------------------|

Inductive Sensors
BES IKU-011-P-1-S-S4-SA1
Order Code: BES02TC



Material

| | |
|--------------------------|---------|
| Housing material | Plastic |
| Material sensing surface | Plastic |

Mechanical data

| | |
|--------------|------------------|
| Dimension | 100 x 35 x 35 mm |
| Installation | non-flush |
| Size | 100x35x35 |

Range/Distance

| | |
|----------------------------------|--------|
| Assured operating distance Sa | 24 mm |
| Hysteresis H max. (% of Sr) | 15.0 % |
| Rated operating distance Sn | 30 mm |
| Real switching distance sr | 30 mm |
| Repeat accuracy max. (% of Sr) | 5.0 % |
| Temperature drift max. (% of Sr) | 10 % |
| Tolerance Sr | ±10 % |

Remarks

After eliminating the overload, the sensor is functional again after a load-dependent delay time of 5-30 s.

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

