



Basic features

| | |
|---------------------|-----------------------------|
| Application | Object detection |
| Approval/Conformity | CE UKCA cULus WEEE |
| Basic standard | IEC 60947-5-2 |
| Operating mode | SIO Mode IO-Link Mode |

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 | 1 μ F |
| Min. operating current I _m | 0 mA |
| No-load current I _o max., damped | 20 mA |
| No-load current I _o max., undamped | 16 mA |
| Operating voltage U _b | 18...30 VDC |
| Protection class | II |
| Rated insulation voltage U _i | 250 V AC |
| Rated operating current I _e | 100 mA |
| Rated operating voltage U _e DC | 24 V |
| Ready delay t _v max. | 80 ms |
| Residual current I _r max. | 10 μ A |
| Ripple max. (% of U _e) | 15 % |
| Switching frequency | 500 Hz |
| Utilization category | DC -13 |
| Voltage drop static max. | 1.2 V |

Environmental conditions

| | |
|-------------------------|---------------------------------------|
| Ambient temperature | -25...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 | IP68, according to BWN Pr 20 |

Functional safety

| | |
|--------------|-------|
| MTTF (40 °C) | 304 a |
|--------------|-------|

IO-Link

| | |
|--------------------|-------------|
| IO-Link Profil IDs | 0x0001 SSP0 |
|--------------------|-------------|

Inductive Sensors
BES M12MD1-YIC60B-S04G
 Order Code: BES05T3



Interface

| | |
|--------------------------|--|
| Interface | IO-Link 1.1 |
| Interface setting option | Factory setting (Reset) SIO mode/IO-Link mode Teach-In of switchpoints |
| Process data IN | Teaching successfully reply 1 byte Switching state Target too close/far |
| Switching output | 2x PNP/NPN/push-pull NO/NC |

Material

| | |
|--------------------------|---------------------------|
| Housing material | Brass, Nickel-free coated |
| Material sensing surface | PBT |

Mechanical data

| | |
|-------------------|--------------|
| Dimension | Ø 12 x 50 mm |
| Installation | quasi-flush |
| Mounting length | 35.0 mm |
| Size | M12x1 |
| Tightening torque | 10 Nm |

Range/Distance

| | |
|--------------------------------|------------|
| Hysteresis H max. (% of Sr) | 15 % |
| Measuring range | 3.5...7 mm |
| Rated operating distance Sn | 6 mm |
| Repeat accuracy max. (% of Sr) | 5.0 % |
| Switching distance marking | ■■■ |

Remarks

The sensor is functional again after the overload has been eliminated.
 Sensors with IO-Link function are not suitable for series or parallel wiring.
 Quasi-flushed: See installation instructions for inductive sensors with extended range 825356.
 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 (Schematic)