



### 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 $U_e$	1 $\mu$ 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 $\mu$ 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 <sub>n</sub> , 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
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### IO-Link

IO-Link Profil IDs	0x0001 SSP0
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**Inductive Sensors**  
**BES M12MD1-YIC60B-S04G**  
**Order Code: BES05T3**



**Interface**

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

**Material**

<b>Housing material</b>	Brass, Nickel-free coated
<b>Material sensing surface</b>	PBT

**Mechanical data**

<b>Dimension</b>	Ø 12 x 50 mm
<b>Installation</b>	quasi-flush
<b>Size</b>	M12x1
<b>Tightening torque</b>	10 Nm

**Range/Distance**

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

**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**

