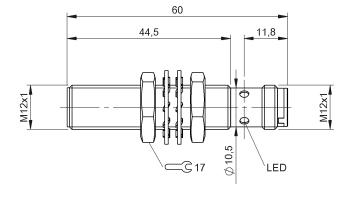
# Inductive Sensors BES M12MG1-YIC60B-S04G Order Code: BES05T2

# BALLUFF





### **Basic features**

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

## **Display/Operation**

Function indicator Power indicator

#### **Electrical connection**

Connection	M12x1-Male, 4-pin, A-coded
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

yes

no

#### **Electrical data**

Load capacitance max. at Ue	1 μF
Min. operating current Im	0 mA
No-load current lo max., damped	20 mA
No-load current lo max., undamped	16 mA
Operating voltage Ub	1830 VDC
Output resistance Ra	33.0 kOhm + D
Protection class	II
Rated insulation voltage Ui	250 V AC
Rated operating current le	100 mA
Rated operating voltage Ue DC	24 V
Ready delay tv max.	80 ms
Residual current Ir max.	10 µA
Ripple max. (% of Ue)	15 %
Switching frequency	500 Hz
Utilization category	DC -13
Voltage drop static max.	1.2 V

## **Environmental conditions**

Ambient temperature	-2570 °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)

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# Inductive Sensors BES M12MG1-YIC60B-S04G **Order Code: BES05T2**



#### Interface

Interface		Mechanical data		
Interface	IO-Link 1.1	Dimension	Ø 12 x 60 mm	
Interface setting option	Factory setting (Reset)	Installation	quasi-flush	
	SIO mode/IO-Link mode	Size	M12x1	
Teach-In of switchpoints	Teach-In of switchpoints	Tightening torque	10 Nm	
Process data IN	Teaching successfully reply 1 byte Switching state	Range/Distance		
	Target too close/far	Hysteresis H max. (% of Son)	15 %	
Switching output	witching output 2x PNP/NPN/push-pull NO/NC	Hysteresis H max. (% of Sr)	15 %	
		Measuring range	3.57 mm	
Material		Rated operating distance Sn	6 mm	
Housing material	ousing material Brass. Nickel-free coated	Repeat accuracy max. (% of Sr)	5.0 %	
Vaterial sensing surface PBT	,	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

