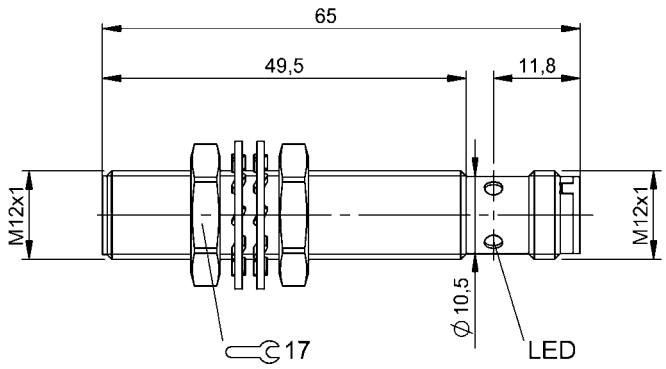
Inductive Sensors

BES M12MI-PSIC20C-S04G
Order Code: BES04FK



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	0.2 µF
Min. operating current Im	0 mA
No-load current Io max., damped	24 mA
No-load current Io max., undamped	20 mA
Operating voltage Ub	12...30 VDC
Output resistance Ra	33.0 kOhm + D
Protection class	II
Rated insulation voltage Ui	250 V AC
Rated operating current Ie	100 mA
Rated operating voltage Ue DC	24 V
Ready delay tv max.	21 ms
Residual current Ir max.	20 µA
Ripple max. (% of Ue)	15 %
Switching frequency	2000 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 V

Environmental conditions

Ambient temperature	-25...85 °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)	415 a

IO-Link

IO-Link Profil IDs	0x0001 SSP0

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Interface

Interface	IO-Link 1.1
Interface setting option	Factory setting (Reset) SIO mode/IO-Link mode Fine adjustment ±0.05 mm
Process data IN	Teaching successfully reply 1 byte Switching state Target too close/far

Material

Housing material	Brass, Nickel-free coated
Material sensing surface	LCP

Mechanical data

Dimension	Ø 12 x 65 mm
Installation	for flush mounting
Mounting length	50.00 mm
Size	M12x1
Tightening torque	10 Nm

Range/Distance

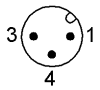
Hysteresis H max. (% of Son)	15 %
Measuring range	0.5...2 mm
Rated operating distance Sn	2 mm

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.
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