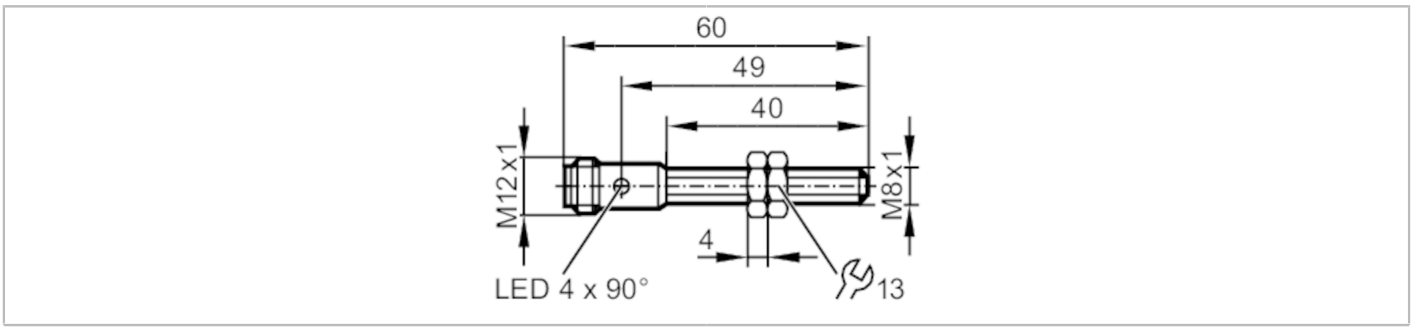
IER201

Inductive full-metal sensor

IEK3002BANKG/AM/SC/US-104



Product characteristics			
Electrical design		NPN	
Output function		normally open	
Sensing range	[mm]	2	
Housing		threaded type	
Dimensions	[mm]	M8 x 1 / L = 60	
Application			
Special feature		Gold-plated contacts; Increased sensing range; Full-metal housing	
Application		For use where space is restricted; Use in welding applications	
Pressure rating		50 bar	10 MPa
Note on pressure rating		sensing face	
Electrical data			
Operating voltage	[V]	10...30 DC	
Current consumption	[mA]	< 10	
Protection class		III	
Reverse polarity protection		yes	
Outputs			
Electrical design		NPN	
Output function		normally open	
Max. voltage drop switching output DC	[V]	2.5	
Permanent current rating of switching output DC	[mA]	100	
Switching frequency DC	[Hz]	100	
Short-circuit protection		yes	
Overload protection		yes	
Detection zone			
Sensing range	[mm]	2	
Real sensing range Sr	[mm]	2 ± 10 %	
Operating distance	[mm]	0...1.62	
Increased sensing range		yes	
Accuracy / deviations			
Correction factor		steel: 1 / stainless steel: 0.7 / brass: 0.7 / aluminium: 0.6 / copper: 0.5	
Hysteresis	[% of Sr]	1...20	

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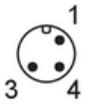
Inductive full-metal sensor

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Switch point drift	[% of Sr]	-10...10	
Operating conditions			
Ambient temperature	[°C]	0...85	
Protection		IP 67; IP 68	
Tests / approvals			
EMC		EN 61000-4-2 ESD	4 kV CD / 8 kV AD
		EN 61000-4-3 HF radiated	10 V/m
		EN 61000-4-4 Burst	2 kV
		EN 61000-4-6 HF conducted	10 V
		EN 55011	class B
Impact resistance			1 J
MTTF	[years]	1389	
UL approval		Ta	0...70 °C
		Enclosure type	Type 1
		voltage supply	Limited Voltage/Current
		UL approval no.	A030
		File number UL	E174191
Mechanical data			
Weight	[g]	21.1	
Housing		threaded type	
Mounting		flush mountable	
Dimensions	[mm]	M8 x 1 / L = 60	
Thread designation		M8 x 1	
Materials		housing: stainless steel (316L/1.4404) anti-spatter; sensing face: stainless steel (316L/1.4404) anti-spatter; LED window: PEI; lock nuts: stainless steel (316L/1.4404) anti-spatter	
Tightening torque	[Nm]	< 5	
Full-metal housing		yes	
Displays / operating elements			
Display		switching status	4 x 90° LED, yellow
Accessories			
Items supplied		lock nuts: 2	
Remarks			
Pack quantity		1 pcs.	

Electrical connection - plug

Connector: 1 x M12; coding: A; Contacts: 3, gold-plated

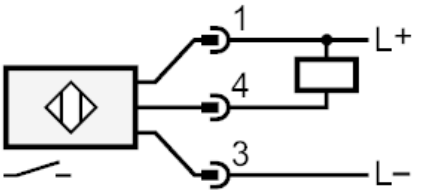


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Inductive full-metal sensor

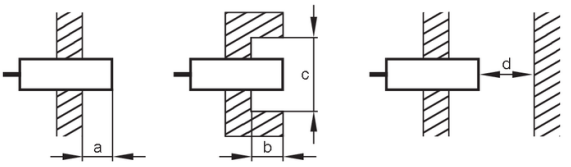
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Connection



Diagrams and graphs

Installation



[mm]	a	b	c (Ø)	d
Fe	0	0	-	6
Al	4	4	24	6

