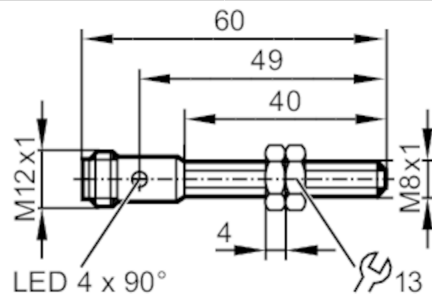




Inductive full-metal sensor

IEK3002BBPKG/AM/US-104



Product characteristics	
Electrical design	PNP
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	Industrial applications / factory automation; Use in machine tools, coolants and lubricants
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	PNP
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

IEC200



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Switch point drift [% of Sr] -10...10

Operating conditions

Ambient temperature [°C] -25...70

Protection IP 67; IP 68; IP 69K; ("Coolant")

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] 1446

UL approval Ta -25...70 °C

Enclosure type Type 1

voltage supply Limited Voltage/Current

UL approval no. A028

File number UL E174191

Mechanical data

Weight [g] 21.4

Housing threaded type

Mounting flush mountable

Dimensions [mm] M8 x 1 / L = 60

Thread designation M8 x 1

Materials stainless steel (316L/1.4404); sensing face: stainless steel (316L/1.4404); LED window: PEI; lock nuts: stainless steel (316L/1.4404)

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





Inductive full-metal sensor

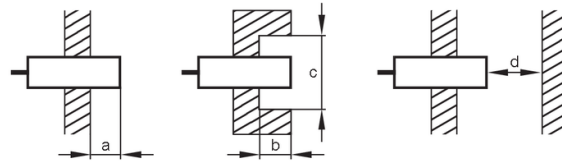
IEK3002BBPKG/AM/US-104

Connection



Diagrams and graphs

Installation



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

