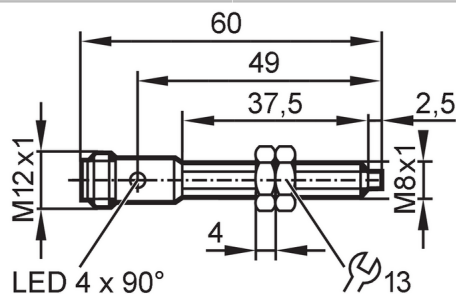




Inductive sensor

IEK2002-FRKG/US-104



Product characteristics

Electrical design	PNP/NPN
Output function	normally open / closed; (selectable)
Sensing range [mm]	2
Housing	Threaded type
Dimensions [mm]	M8 x 1 / L = 60

Application

Special feature	Increased sensing range
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Electrical data

Operating voltage [V]	5...30 DC
Current consumption [mA]	< 10
Protection class	III
Reverse polarity protection	no

Outputs

Electrical design	PNP/NPN
Output function	normally open / closed; (selectable)
Max. voltage drop switching output DC [V]	4.6
Minimum load current [mA]	4
Max. leakage current [mA]	0.8
Permanent current rating of switching output DC [mA]	100
Switching frequency DC [Hz]	2000
Short-circuit protection	yes
Overload protection	yes

Monitoring range

Sensing range [mm]	2
Real sensing range S_r [mm]	$2 \pm 10 \%$
Operating distance [mm]	0...1.62
Increased sensing range	yes

Accuracy / deviations

Correction factor	steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminum: 0.4 / copper: 0.3
Hysteresis [% of Sr]	1...20
Switch-point drift [% of Sr]	-10...10



Inductive sensor

IEK2002-FRKG/US-104

Operating conditions

Ambient temperature	[°C]	-25...80
Protection		IP 67

Tests / approvals

EMC	EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated	3 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-6 HF conducted	3 V
	EN 55011	class B
MTTF	[years]	1703

Mechanical data

Weight	[g]	23.7
Housing		Threaded type
Mounting		non-flush mountable
Dimensions	[mm]	M8 x 1 / L = 60
Thread designation		M8 x 1
Material		housing: brass white bronze coated; sensing face: LCP orange; LED window: PEI; lock nuts: brass white bronze coated
Tightening torque	[Nm]	A = 5 mm: 1,5 Nm; B: 2 Nm
Full-metal housing		no

Displays / operating elements

Display	Switching status	1 x LED, yellow
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Accessories

Items supplied	lock nuts: 2
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Remarks

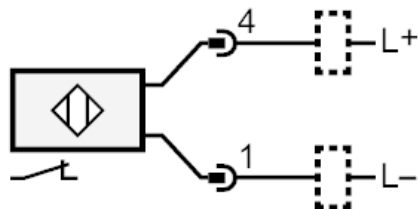
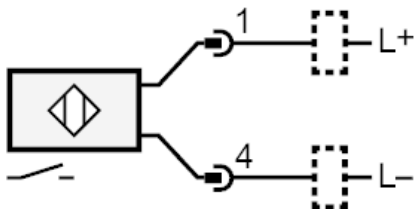
Pack quantity	1 pcs.
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Electrical connection - plug

Connector: 1 x M12; coding: A



Connection



IE5298

Inductive sensor

IEK2002-FRKG/US-104



Diagrams and graphs

Installation

