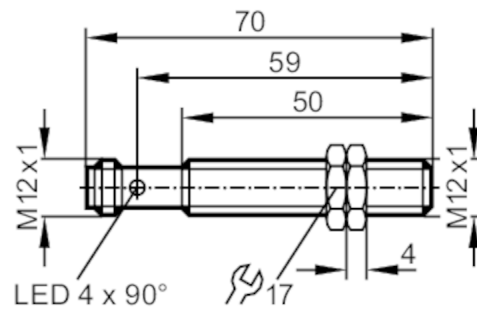


# IFC241



## Inductive sensor

IFK3002-BPKG/M/US-104-DPS



### Product characteristics

Electrical design		PNP
Output function		normally open
Sensing range	[mm]	2
Housing		threaded type
Dimensions	[mm]	M12 x 1 / L = 70

### Application

Special feature		Gold-plated contacts
Application		Use in machine tools, coolants and lubricants

### Electrical data

Operating voltage	[V]	10...36 DC
Current consumption	[mA]	< 10
Protection class		II
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]	200
Switching frequency DC	[Hz]	700
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Overload protection		yes

### Detection zone

Sensing range	[mm]	2
Real sensing range Sr	[mm]	2 ± 10 %
Operating distance	[mm]	0...1.6

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Accuracy / deviations		
Correction factor		steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.5 / copper: 0.4
Hysteresis	[% of Sr]	1...20
Switch point drift	[% of Sr]	-10...10
Operating conditions		
Ambient temperature	[°C]	-25...70
Protection		IP 68; ("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 61000-4-5 Surge	0,5 kV
	EN 61000-4-6 HF conducted	10 V
	EN 55011	class B
MTTF	[years]	1835
UL approval	Ta	0...40 °C
	Enclosure type	Type 1
	voltage supply	Hazardous voltage
	File number UL	E174191
Mechanical data		
Weight	[g]	30.7
Housing		threaded type
Mounting		flush mountable
Dimensions	[mm]	M12 x 1 / L = 70
Thread designation		M12 x 1
Materials		brass white bronze coated; sensing face: LCP uncoloured
Displays / operating elements		
Display	switching status	4 x 90° LED, yellow
Accessories		
Accessories (supplied)		lock nuts: 2
Remarks		
Pack quantity		1 pcs.
Electrical connection - plug		
Connector: 1 x M12; Contacts: gold-plated		

A top-down diagram of a circular 4-pin M12 connector. The pins are arranged in a square pattern and are numbered 1, 2, 3, and 4. Pin 1 is at the top-right, pin 2 is at the top-left, pin 3 is at the bottom-left, and pin 4 is at the bottom-right.

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### Connection

