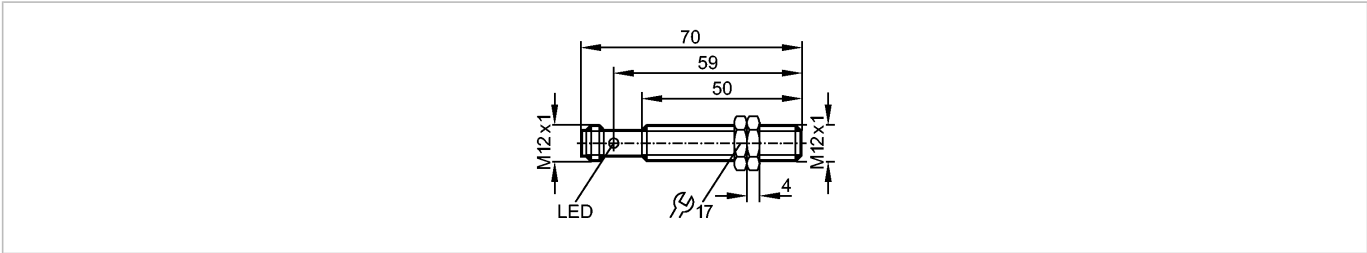


IFM205

IFK3004BBPKG/M/60V/US-104-DPS

Inductive sensors



Product characteristics

Inductive sensor
Metal thread M12 x 1
Quick disconnect
Increased sensing range
gold-plated contacts
e1 type approval
Sensing range 4 mm; [f] flush mountable

Electrical data

Electrical design	DC PNP
Operating voltage [V]	10...60 DC
Current consumption [mA]	< 10
Protection class	II
Reverse polarity protection	yes

Outputs

Output function	normally open
Voltage drop [V]	< 2.5
Current rating [mA]	200
Short-circuit protection	yes (non-latching)
Overload protection	yes
Switching frequency [Hz]	400

Monitoring range

Sensing range [mm]	4
Operating distance [mm]	0...3.24

Accuracy / deviations

Correction factors	mild steel = 1 / stainless steel approx. 0.7 / brass approx. 0.5 / aluminium approx. 0.5 / Cu approx. 0.4
Hysteresis [% of Sr]	1...20

Environment

Ambient temperature [°C]	-40...85
Protection	IP 67 / IP 69K

Tests / approvals

EMC	Automotive area Noise emission and noise interference according to the automotive directive 95/54/EC (e1 type approval) Noise interference according to DIN ISO 11452-2: 100 V/m Conducted interference according to ISO 7637-2
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IFM205

IFK3004BBPKG/M/60V/US-104-DPS

Inductive sensors

	Pulse	1 2 3a 3b 4 5
	Severity level	IV IV IV IV IV IV
	Failure criterion	C C A A A C
	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 (Mains line to line)
	EN 61000-4-6 HF conducted:	10 V
	EN 55011:	class B
Vibration resistance	EN 60068-2-6 Fc	20 g (10...3000 Hz) / -20°C and 50°C 50 cycles per frequency, 1 octave per minute in each of 3 mutually perpendicular axes
Shock resistance	EN 60068-2-27 Ea	100 g (11 ms half sine; 3 shocks in each direction along the three coordinate axes) / -40°C and 85°C
Continuous shock resistance	EN 60068-2-29 Eb	40 g (6 ms; 4000 shocks in each direction along the three coordinate axes) / -20°C and 50°C
Fast temperature changes	EN 60068-2-14 Na	TA = -40°C; TB = 85°C; t1 = 30 min; t2 = < 10 s; 50 cycles
Salt spray test	EN 60068-2-52 Kb	severity level 5 (4 test cycles)
MTTF	[Years]	662

Mechanical data

Mounting	flush mountable
Housing materials	housing: high-grade stainless steel; active face: PBT; lock nuts: brass
Weight	[kg] 0.031

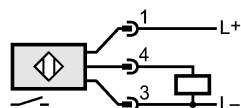
Displays / operating elements

Output status indication	LED	yellow (4 x 90°)
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Electrical connection

Connection	M12 connector; gold-plated contacts
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Wiring



Accessories

Accessories (included)	2 lock nuts
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Remarks

Pack quantity	[piece]	1
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