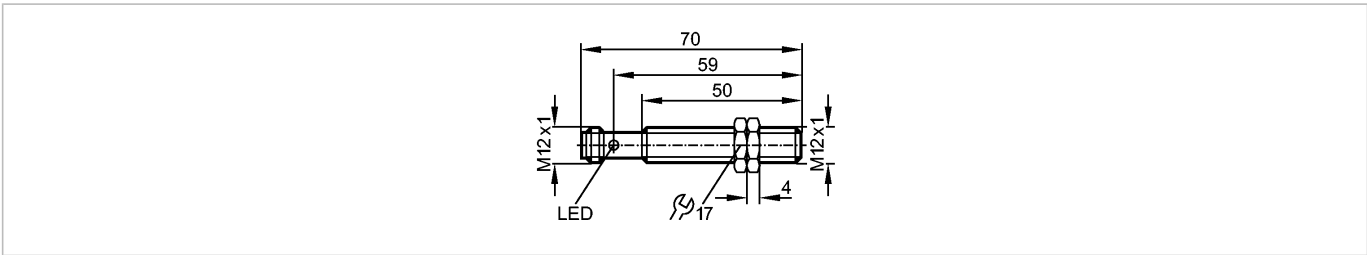


**IFM203**

IFKC004BASKG/M/US-104-DRS

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	3-wire DC PNP; 2-wire DC PNP/NPN
Operating voltage [V]	10...36 DC
Current consumption [mA]	< 10 only in 3-wire operation
Protection class	II
Reverse polarity protection	yes

**Outputs**

Output function	normally open
Voltage drop [V]	< 2.5
Minimum load current [mA]	> 2; only in 2-wire operation
Leakage current [mA]	< 0.5; only in 2-wire operation
Current rating [mA]	100
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)
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**IFM203**

IFKC004BASKG/M/US-104-DRS

**Inductive sensors**

	Noise interference according to DIN ISO 11452-2: 100 V/m Conducted interference according to ISO 7637-2 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 (line to line, Ri: 20hm) 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]	691

**Mechanical data**

Mounting	flush mountable
Housing materials	housing: high-grade stainless steel; active face: PBT; lock nuts: brass
Weight [kg]	0.015

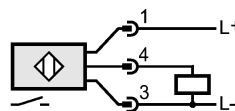
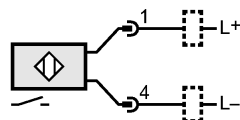
**Displays / operating elements**

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**

Remarks	*) only in 2-wire operation
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Pack quantity [piece]	1
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