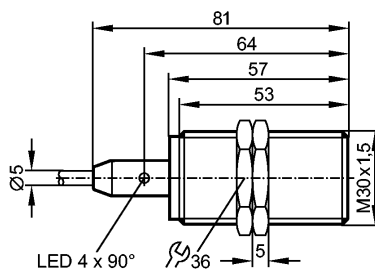


IIM202

IIKC012BASKG/M/6M/ZH

Inductive sensors



Product characteristics

Inductive sensor
Metal thread M30 x 1.5
Cable
Increased sensing range
e1 type approval
Sensing range 12 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	pulsed
Overload protection	yes
Switching frequency [Hz]	100

Range

Sensing range [mm]	12
Operating distance [mm]	0...9.72

Accuracy / deviations

Correction factors	mild steel = 1 / stainless steel approx. 0.7 / brass approx. 0.5 / aluminium approx. 0.45 / 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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Inductive sensors

	<p>Noise interference according to DIN ISO 11452-2: 100 V/m</p> <p>Conducted interference according to ISO 7637-2</p> <p>Pulse 1 2 3a 3b 4 5</p> <p>Severity level IV IV IV IV IV IV</p> <p>Failure criterion C C A A A C</p> <p>EN 61000-4-2 ESD: 4 kV CD / 8 kV AD</p> <p>EN 61000-4-3 HF radiated: 10 V/m</p> <p>EN 61000-4-4 Burst: 2 kV</p> <p>EN 61000-4-5 Surge: 0.5 kV (line to line, Ri: 20hm)</p> <p>EN 61000-4-6 HF conducted: 10 V</p> <p>EN 55011: class B</p>
Vibration resistance	<p>EN 60068-2-6 Fc</p> <p>20 g (10...3000 Hz) / -20°C and 50°C</p> <p>50 cycles per frequency, 1 octave per minute in each of 3 mutually perpendicular axes</p>
Shock resistance	<p>EN 60068-2-27 Ea</p> <p>100 g (11 ms half sine; 3 shocks in each direction along the three coordinate axes) / -40°C and 85°C</p>
Continuous shock resistance	<p>EN 60068-2-29 Eb</p> <p>40 g (6 ms; 4000 shocks in each direction along the three coordinate axes) / -20°C and 50°C</p>
Fast temperature changes	<p>EN 60068-2-14 Na</p> <p>TA = -40°C; TB = 85°C; t1 = 30 min; t2 = < 10 s; 50 cycles</p>
Salt spray test	<p>EN 60068-2-52 Kb</p> <p>severity level 5 (4 test cycles)</p>
MTTF [Years]	1101

Mechanical data

Mounting	flush mountable
Housing materials	housing: stainless steel; active face: PBT; LED window: PEI; lock nuts: Brass
Weight [kg]	0.379

Displays / operating elements

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

Connection	PUR cable / 6 m; 3 x 0.5 mm ² ; Ø 5.4 mm; Brennverhalten gemäß ECE R118 Rev.2
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Wiring

Core colours
 BK black
 BN brown
 BU blue



Accessories

Accessories (included)	2 lock nuts
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Remarks

Remarks	**) only in 3-wire operation
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Pack quantity [piece]	1
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