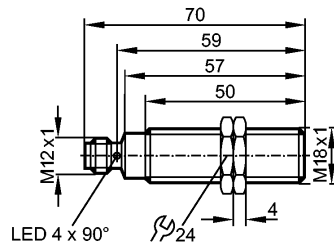


IGM200

IGKC008BASKG/M/US-104-DRS

Inductive sensors



Made in Germany



Product characteristics

Inductive sensor
Metal thread M18 x 1
Connector
e1 type approval
Increased sensing range
Gold-plated contacts
Sensing range 8 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
Leakage current [mA]	< 0.5
Current rating [mA]	100
Short-circuit protection	pulsed
Overload protection	yes
Switching frequency [Hz]	200

Range

Sensing range [mm]	8
Operating distance [mm]	0...6.48

Accuracy / deviations

Correction factors	mild steel = 1 / stainless steel approx. 0.7 / brass approx. 0.5 / aluminium approx. 0.45 / copper approx. 0.35
Hysteresis [% of Sr]	1...20

Environment

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

Tests / approvals

EMC	Automotive area
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Inductive sensors

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	
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 (80...2000 MHz)
EN 61000-4-4 Burst:	2 kV
EN 61000-4-5 Surge:	0.5 kV (line to line, Ri: 20Ω)
EN 61000-4-6 HF conducted:	10 V (0.15...80 MHz)
EN 55011:	class B

Environmental Inspection Rating

Vibration Test (EN 60068-2-6 Fc):
20 g acceleration; from 10 to 3000 Hz at -20 °C and 50 °C; 50 cycles per frequency; 1 octave per minute in each of 3 mutually perpendicular axes.

Shock Test (EN 60068-2-27 Ea):
100 g acceleration; 11 ms half sine wave pulse shape with 3 shocks in each direction along the three coordinate axis at -40 °C and 85 °C.

Continuous Shock Test (EN 60068-2-29 Eb):
40 g acceleration; 6 ms with 4000 shocks in any direction along the 3 coordinate axis at -20 °C and 50 °C.

Rapid Temperature Change Test (EN 60068-2-14 Na):
Sensor is alternately put in -40 °C environment for 30 minutes and 85 °C environment for 30 min. The transfer between environments must occur in less than 10 seconds. Test is repeated for 50 cycles.

Salt Spray Test (EN 60068-2-52 Kb):
Severity level 5 (4 test cycles)

MTTF [Years]

1143

Mechanical data

Mounting flush mountable

Housing materials housing: stainless steel; active face: PBT; lock nuts: Brass

Weight [kg] 0.055

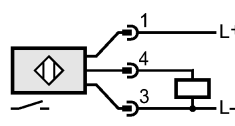
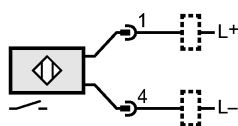
Displays / operating elements

Output status indication LED yellow (4 x 90°)

Electrical connection

Connection M12 connector; Gold-plated contacts

Wiring



Accessories

Accessories (included) 2 lock nuts

Remarks



IGM200

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Inductive sensors

Pack quantity [piece] 1