



Product characteristics

Inductive sensor
Metal thread M18 x 1
Quick disconnect
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; 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]	200
Monitoring 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. 0.46 / 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 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

**IGM200 - Inductive sensor - eclass: 27270101 / 27-27-01-01**

	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]		1143
Mechanical data		
Mounting		flush mountable
Housing materials		housing: stainless steel; active face: LCP; 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
<b>Wiring</b>		
Accessories		
Accessories (included)		2 lock nuts
Remarks		
Pack quantity [piece]		1