



ICF - Full metal inductive sensors

Sensors

ICF

Full metal inductive sensor

The ICF inductive sensors family is a robust solution for daily indoor and outdoor operations to ensure accurate and reliable detection of metal object even in harsh conditions.

Thanks to the one-piece stainless-steel housing, is particularly suitable in applications where high mechanical resistance to impacts, vibrations and resistance to aggressive cleaning processes using chemical agents are required.

The on-board IO-Link communication offers many output combinations such as customized sensing distance and advanced sensing modes. Moreover, provides specific cyclic process data to monitor the quality of the detection, allowing timely and predictable scheduling of maintenance to prevent machine downtime.



The highest impact resistance

Main features

- M12, M18 and M30 rugged one-piece stainless-steel AISI 304 housings available with 2m high-grade PUR cable or M12-plug
- Maximum electrical and mechanical flexibility with flush or non-flush versions and configurable output: PNP, NPN, Push-Pull, NO, NC
- High switching distances from 4 to 22 mm to allow a safe installation on the machine

Predictable maintenance:

- Proximity alarm, when the target is too close to the sensing face
- Low margin alarm, when the target is between 81% and 100% of the sensing distance
- Activation level, gives a rough indication of the target position
- Temperature monitoring, setting over or under-run temperature alarms

Extreme performance

- Full metal face resistant up to 260 bar pressure for M12, 200 bar for M18 and 100 bar for M30
- IK10 mechanical shock resistance (EN 50102), 1 J impact resistance (EN 60068-2-75)
- 25 g vibration resistance, 100 g shock resistance and 40 g continuous shock resistance
- Extended operating temperature range from -40°C to +85°C; Resistant up to 100°C for 15' cleaning process
- IP67, IP68 and IP69K protection degree to avoid any water and moisture penetration during high pressure and high temperature washing cycles

LEDs function

- The visual adjustment indicator helps to ensure a safe detection of the target during the installation on the machine
- "Find my sensor" can be activated via IO-Link, to easily identify and locate the sensor

Applications

Food & Beverage



Agriculture



Machine Tool



Metal working



Pharmaceutical



Mobile equipment



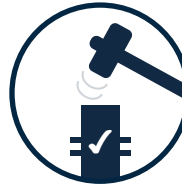
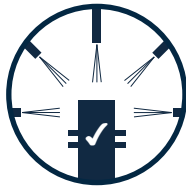
EXTREME MECHANICAL RESISTANCE

100 g shock
40 g continuous
shock resistance

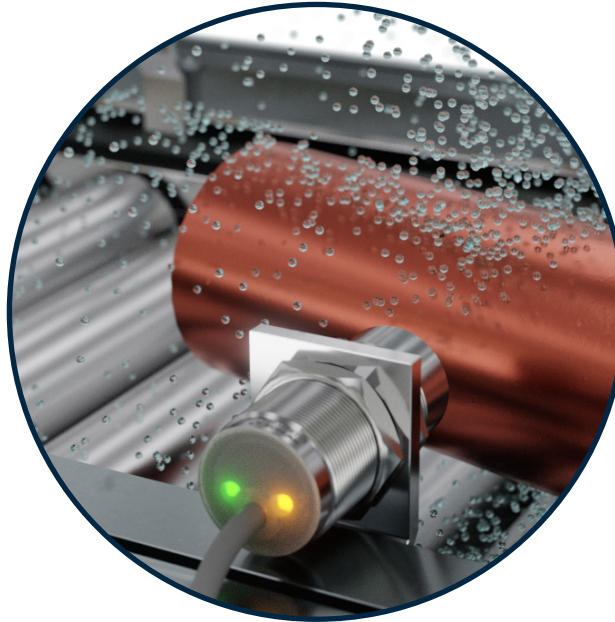


-40°C to +85°C
extended temperature
range

IP68, IP69K
protection degree



IK10
mechanical shock
resistance

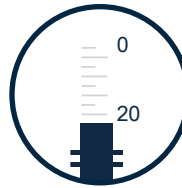


Proximity alarm
target <15% Sn



Low margin alarm
target >81% Sn

Temperature alarm
over or under-run



Activation level
0-20 range

MACHINE CONDITION MONITORING

Type selection

ICF12 (3-wire DC)

Housing dimension	M12	
Material	Stainless steel AISI 304 housing	
Rated operational voltage	10 to 30 VDC	
Switching frequency	≤ 500Hz	
Max rated operating distance, Sn	4 mm	8 mm
Installation type	Flush	Non-flush
2m PUR cable	ICF12L45F04B2IO	ICF12L45N08B2IO
M12 - Plug	ICF12L45F04M1IO	ICF12L45N08M1IO

ICF18 (3-wire DC)

Housing dimension	M18	
Material	Stainless steel AISI 304 housing	
Rated operational voltage	10 to 30 VDC	
Switching frequency	≤ 300Hz	
Max rated operating distance, Sn	8 mm	14 mm
Installation type	Flush	Non-flush
2m PUR cable	ICF18L45F08B2IO	ICF18L45N14B2IO
M12 - Plug	ICF18L45F08M1IO	ICF18L45N14M1IO

ICF30 (3-wire DC)

Housing dimension	M30	
Material	Stainless steel AISI 304 housing	
Rated operational voltage	10 to 30 VDC	
Switching frequency	≤ 150Hz	
Max rated operating distance, Sn	15 mm	22 mm
Installation type	Flush	Non-flush
2m PUR cable	ICF30L45F15B2IO	ICF30L45N22B2IO
M12 - Plug	ICF30L45F15M1IO	ICF30L45N22M1IO



Information:

Rated operating distance can be set to 33%, 50%, 75% or 100% of the maximum sensing distance. Electrical outputs can be configured as PNP/NPN/Push-pull, normally open or normally closed.

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