IMF

The economic standard for use in the food industry

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.

Technical data overview

Housing	Cylindrical thread design
Thread size	M8 x 1 M12 x 1 M18 x 1 M30 x 1.5
Diameter	Ø 8 mm ... Ø 30 mm (depending on type)
Sensing range S_n	2 mm ... 20 mm (depending on type)
Housing material	Stainless steel V4A
Enclosure rating	IP68 / IP69K / IP67 (depending on type)

Product description

The IMF inductive proximity sensor is the new standard for reliability in the food industry. With its extended sensing ranges, made highly precise thanks to the use of SICK ASIC technology, the IMF ensures reliable, stable processes. What's more, its wide-ranging specification limits allow the IMF to be used in all areas of food production: a huge benefit when it comes to product selection and warehousing. The optical adjustment indicator saves time during commissioning and helps cut down on errors. Communication via IO-Link is also possible, creating more flexibility and adding more functions for automation applications. With an extensive standard product portfolio available, even special devices can be put into action quickly and easily.

At a glance

- Types: M8 to M30
- Extended sensing ranges: 2 mm to 20 mm
- Electrical configuration: DC 3-/4-wire
- Enclosure rating: IP 68, IP 69K
- Temperature range: –40 °C to +100 °C
- Food-compatible stainless-steel housing, plastic sensing face
- Optical adjustment indicator, IO-Link-ready
- Resistant to industrial cleaning agents, Ecolab-certified

Your benefits

- Reliable processes thanks to extended, highly accurate sensing ranges enabled through the use of SICK ASIC technology
- Reduced machine downtimes thanks to a longer service life, even when subjected to frequent cleaning cycles
- Quick and easy installation thanks to the optical adjustment indicator
- High degree of flexibility and communication options thanks to IO-Link
- Easy to implement customer-specific variants thanks to a modular concept

Fields of application

- Monitoring the positions of bend couplings on mixing panels
- Monitoring the positions of globe valves
- Position sensing for food production facilities:

Ordering information

Other models and accessories ➜ www.sick.com/IMF

- **Sub product family:** IMF08
- **Cylindrical thread design:** M8
- **Installation type:** flush
- **Electrical wiring:** DC 3-wire

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
2 mm	Standard	NPN	NO	Resistant to cleaning agents, Visual adjustment indicator, Temperature resistance	Male connector M12, 4-pin [1]	IMF08-02BNSNC0S	1076749
		PNP	NC		Male connector M12, 4-pin [1]	IMF08-02BPONC0S	1076747

[1] With gold plated contact pins.

- **Sub product family:** IMF08
- **Cylindrical thread design:** M8
- **Installation type:** flush
- **Electrical wiring:** DC 3-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
2 mm	Standard	PNP	NO	Resistant to cleaning agents, Visual adjustment indicator, IO-Link, Tempera-ture resistance	Male connector M12, 4-pin [1]	IMF08-02BPSNC0S	1076745

[1] With gold plated contact pins.

- **Sub product family:** IMF08
- **Cylindrical thread design:** M8
- **Installation type:** flush
- **Electrical wiring:** DC 3-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis
- **Info:** II 3G Ex ec IIC T4 Gc X, II 3D Ex tc T135 °C Dc X In the framework of directive 2014/34/EU (ATEX) and DIN EN ISO/
  IEC 80079-34, we would like to point out that the traceability of the ordered device to your customer is your responsibility (documentation of your customer and associated product data, such as part number, datcode, serial number).

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
2 mm	Standard	PNP	NO	Resistant to cleaning agents, Visual adjustment in-dicator, IO-Link	Male connector M12, 4-pin [1]	IMF08-02BPSNC0SX01	1099577

[1] With gold plated contact pins.

- **Sub product family:** IMF08
- **Cylindrical thread design:** M8
- **Installation type:** non-flush
- **Electrical wiring:** DC 3-wire

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
4 mm	Standard	NPN	NO	Resistant to cleaning agents, Visual adjustment indicator, Temperature resistance	Male connector M12, 4-pin [1]	IMF08-04NNSNC0S	1076753
		PNP	NC		Male connector M12, 4-pin [1]	IMF08-04NPONC0S	1076751

[1] With gold plated contact pins.

- **Sub product family:** IMF08
- **Cylindrical thread design:** M8
- **Installation type:** non-flush
- **Electrical wiring:** DC 3-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
4 mm	Standard	PNP	NO	Resistant to cleaning agents, Visual adjustment indicator, IO-Link, Tempera-ture resistance	Male connector M12, 4-pin [1]	IMF08-04NPSNC0S	1076750

[1] With gold plated contact pins.

- **Sub product family:** IMF08
- **Cylindrical thread design:** M8
- **Installation type:** non-flush
- **Electrical wiring:** DC 3-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis
- **Info:** II 3G Ex ec IIC T4 Gc X, II 3D Ex tc T135 °C Dc X In the framework of directive 2014/34/EU (ATEX) and DIN EN ISO/IEC 80079-34, we would like to point out that the traceability of the ordered device to your customer is your responsibility (documentation of your customer and associated product data, such as part number, datcode, serial number).

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
4 mm	Standard	PNP	NO	Resistant to cleaning agents, Visual adjustment in-dicator, IO-Link	Male connector M12, 4-pin [1]	IMF08-04NPSNC0SX02	1099578

[1] With gold plated contact pins.

- **Sub product family:** IMF08
- **Cylindrical thread design:** M8
- **Installation type:** flush
- **Electrical wiring:** DC 4-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
2 mm	Standard	PNP	Comple-mentary	Resistant to cleaning agents, IO-Link, Tempera-ture resistance	Male connector M12, 4-pin [1]	IMF08-02BPPNC0S	1076748

[1] With gold plated contact pins.

- **Sub product family:** IMF08
- **Cylindrical thread design:** M8
- **Installation type:** non-flush
- **Electrical wiring:** DC 4-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
4 mm	Standard	PNP	Comple-mentary	Resistant to cleaning agents, IO-Link, Tempera-ture resistance	Male connector M12, 4-pin [1]	IMF08-04NPPNC0S	1076752

[1] With gold plated contact pins.

- **Sub product family:** IMF12
- **Cylindrical thread design:** M12
- **Installation type:** flush
- **Electrical wiring:** DC 3-wire

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
4 mm	Standard	NPN	NO	Resistant to cleaning agents, Visual adjustment indicator, Temperature resistance	Male connector M12, 4-pin [1]	IMF12-04BNSNC0S	1076671
		PNP	NC		Male connector M12, 4-pin [1]	IMF12-04BPONC0S	1076670

[1] With gold plated contact pins.

- **Sub product family:** IMF12
- **Cylindrical thread design:** M12
- **Installation type:** flush
- **Electrical wiring:** DC 3-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
4 mm	Standard	PNP	NO	Resistant to cleaning agents, Visual adjustment indicator, IO-Link, Tempera-ture resistance	Male connector M12, 4-pin [1]	IMF12-04BPSNC0S	1076673

[1] With gold plated contact pins.

- **Sub product family:** IMF12
- **Cylindrical thread design:** M12
- **Installation type:** flush
- **Electrical wiring:** DC 3-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis
- **Info:** II 3G Ex ec IIC T4 Gc X, II 3D Ex tc T135 °C Dc X In the framework of directive 2014/34/EU (ATEX) and DIN EN ISO/IEC 80079-34, we would like to point out that the traceability of the ordered device to your customer is your responsibility (docu-mentation of your customer and associated product data, such as part number, datcode, serial number).

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
4 mm	Standard	PNP	NO	Resistant to cleaning agents, Visual adjustment in-dicator, IO-Link	Male connector M12, 4-pin [1]	IMF12-04BPSNC0SX01	1099579

[1] With gold plated contact pins.

- **Sub product family:** IMF12
- **Cylindrical thread design:** M12
- **Installation type:** non-flush
- **Electrical wiring:** DC 3-wire

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
8 mm	Standard	NPN	NO	Resistant to cleaning agents, Visual adjustment indicator, Temperature resistance	Male connector M12, 4-pin [1]	IMF12-08NNSNC0S	1076677
		PNP	NC		Male connector M12, 4-pin [1]	IMF12-08NPONC0S	1076676

[1] With gold plated contact pins.

- **Sub product family:** IMF12
- **Cylindrical thread design:** M12
- **Installation type:** non-flush
- **Electrical wiring:** DC 3-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
8 mm	Standard	PNP	NO	Resistant to cleaning agents, Visual adjustment indicator, IO-Link, Tempera-ture resistance	Male connector M12, 4-pin [1]	IMF12-08NPSNC0S	1076675

[1] With gold plated contact pins.

- **Sub product family:** IMF12
- **Cylindrical thread design:** M12
- **Installation type:** non-flush
- **Electrical wiring:** DC 3-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis
- **Info:** II 3G Ex ec IIC T4 Gc X, II 3D Ex tc T135 °C Dc X In the framework of directive 2014/34/EU (ATEX) and DIN EN ISO/IEC 80079-34, we would like to point out that the traceability of the ordered device to your customer is your responsibility (documentation of your customer and associated product data, such as part number, datcode, serial number).

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
8 mm	Standard	PNP	NO	Resistant to cleaning agents, Visual adjustment in-dicator, IO-Link	Male connector M12, 4-pin [1]	IMF12-08NPSNC0SX02	1099580

[1] With gold plated contact pins.

- **Sub product family:** IMF12
- **Cylindrical thread design:** M12
- **Installation type:** flush
- **Electrical wiring:** DC 4-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
4 mm	Short-body	PNP	Comple-mentary	Resistant to cleaning agents, IO-Link, Tempera-ture resistance	Male connector M12, 4-pin [1]	IMF12-04BPPNC0K	1083497
	Standard	PNP	Comple-mentary		Male connector M12, 4-pin [1]	IMF12-04BPPNC0S	1076674

[1] With gold plated contact pins.

- **Sub product family:** IMF12
- **Cylindrical thread design:** M12
- **Installation type:** non-flush
- **Electrical wiring:** DC 4-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
8 mm	Standard	PNP	Comple-mentary	Resistant to cleaning agents, IO-Link, Tempera-ture resistance	Cable, 4-wire, 10 m [1]	IMF12-08NPPNS6S	1119172
					Male connector M12, 4-pin [1]	IMF12-08NPPNC0S	1076678

[1] With gold plated contact pins.

- **Sub product family:** IMF18
- **Cylindrical thread design:** M18
- **Installation type:** quasi-flush
- **Electrical wiring:** DC 3-wire

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
8 mm	Standard	NPN	NO	Resistant to cleaning agents, Visual adjustment indicator, Temperature resistance	Male connector M12, 4-pin [1]	IMF18-08BNSNC0S	1076664
		PNP	NC		Male connector M12, 4-pin [1]	IMF18-08BPONC0S	1076663

[1] With gold plated contact pins.

- **Sub product family:** IMF18
- **Cylindrical thread design:** M18
- **Installation type:** quasi-flush
- **Electrical wiring:** DC 3-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
8 mm	Standard	PNP	NO	Resistant to cleaning agents, Visual adjustment indicator, IO-Link, Tempera-ture resistance	Male connector M12, 4-pin [1]	IMF18-08BPSNC0S	1076662

[1] With gold plated contact pins.

- **Sub product family:** IMF18
- **Cylindrical thread design:** M18
- **Installation type:** quasi-flush
- **Electrical wiring:** DC 3-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis
- **Info:** II 3G Ex ec IIC T4 Gc X, II 3D Ex tc T135°C Dc X In the framework of directive 2014/34/EU (ATEX) and DIN EN ISO/ IEC 80079-34, we would like to point out that the traceability of the ordered device to your customer is your responsibility (documentation of your customer and associated product data, such as part number, datcode, serial number).

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
8 mm	Standard	PNP	NO	Resistant to cleaning agents, Visual adjustment indicator, IO-Link	Male connector M12, 4-pin [1]	IMF18-08BPSNC0SX01	1099581

[1] With gold plated contact pins.

- **Sub product family:** IMF18
- **Cylindrical thread design:** M18
- **Installation type:** non-flush
- **Electrical wiring:** DC 3-wire

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
12 mm	Standard	NPN	NO	Resistant to cleaning agents, Visual adjustment indicator, Temperature resistance	Male connector M12, 4-pin [1]	IMF18-12NNSNC0S	1076668
		PNP	NC		Male connector M12, 4-pin [1]	IMF18-12NPONC0S	1076667

[1] With gold plated contact pins.

- **Sub product family:** IMF18
- **Cylindrical thread design:** M18
- **Installation type:** non-flush
- **Electrical wiring:** DC 3-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
12 mm	Standard	PNP	NO	Resistant to cleaning agents, Visual adjustment indicator, IO-Link, Temperature resistance	Male connector M12, 4-pin [1]	IMF18-12NPSNC0S	1076666

[1] With gold plated contact pins.

- **Sub product family:** IMF18
- **Cylindrical thread design:** M18
- **Installation type:** non-flush
- **Electrical wiring:** DC 3-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis
- **Info:** II 3G Ex ec IIC T4 Gc X, II 3D Ex tc T135°C Dc X In the framework of directive 2014/34/EU (ATEX) and DIN EN ISO/IEC 80079-34, we would like to point out that the traceability of the ordered device to your customer is your responsibility (documentation of your customer and associated product data, such as part number, datcode, serial number).

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
12 mm	Standard	PNP	NO	Resistant to cleaning agents, Visual adjustment indicator, IO-Link	Male connector M12, 4-pin [1]	IMF18-12NPSNC0SX02	1099582

[1] With gold plated contact pins.

- **Sub product family:** IMF18
- **Cylindrical thread design:** M18
- **Installation type:** quasi-flush
- **Electrical wiring:** DC 4-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
8 mm	Standard	PNP	Comple-mentary	Resistant to cleaning agents, IO-Link, Temperature resistance	Male connector M12, 4-pin [1]	IMF18-08BPPNC0S	1076665

[1] With gold plated contact pins.

- **Sub product family:** IMF18
- **Cylindrical thread design:** M18
- **Installation type:** non-flush
- **Electrical wiring:** DC 4-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
12 mm	Standard	PNP	Comple-mentary	Resistant to cleaning agents, IO-Link, Temperature resistance	Male connector M12, 4-pin [1]	IMF18-12NPPNC0S	1076669

[1] With gold plated contact pins.

- **Sub product family:** IMF30
- **Cylindrical thread design:** M30
- **Installation type:** flush
- **Electrical wiring:** DC 3-wire

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
15 mm	Standard	NPN	NO	Resistant to cleaning agents, Visual adjustment indicator, Temperature resistance	Male connector M12, 4-pin [1]	IMF30-15BNSNC0S	1076657
		PNP	NC		Male connector M12, 4-pin [1]	IMF30-15BPONC0S	1076654

[1] With gold plated contact pins.

- **Sub product family:** IMF30
- **Cylindrical thread design:** M30
- **Installation type:** flush
- **Electrical wiring:** DC 3-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
15 mm	Standard	PNP	NO	Resistant to cleaning agents, Visual adjustment indicator, IO-Link, Tempera-ture resistance	Male connector M12, 4-pin [1]	IMF30-15BPSNC0S	1076653

[1] With gold plated contact pins.

- **Sub product family:** IMF30
- **Cylindrical thread design:** M30
- **Installation type:** flush
- **Electrical wiring:** DC 3-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis
- **Info:** II 3G Ex ec IIC T4 Gc X, II 3D Ex tc T135 °C Dc X In the framework of directive 2014/34/EU (ATEX) and DIN EN ISO/IEC 80079-34, we would like to point out that the traceability of the ordered device to your customer is your responsibility (documentation of your customer and associated product data, such as part number, datcode, serial number).

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
15 mm	Standard	PNP	NO	Resistant to cleaning agents, Visual adjustment indicator, IO-Link, Tempera-ture resistance	Male connector M12, 4-pin [1]	IMF30-15BPSNC0SX01	1099583

[1] With gold plated contact pins.

- **Sub product family:** IMF30
- **Cylindrical thread design:** M30
- **Installation type:** non-flush
- **Electrical wiring:** DC 3-wire

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
20 mm	Standard	NPN	NO	Resistant to cleaning agents, Visual adjustment indicator, Temperature resistance	Male connector M12, 4-pin [1]	IMF30-20NNSNC0S	1076661
		PNP	NC		Male connector M12, 4-pin [1]	IMF30-20NPONC0S	1076659

[1] With gold plated contact pins.

- **Sub product family:** IMF30
- **Cylindrical thread design:** M30
- **Installation type:** non-flush
- **Electrical wiring:** DC 3-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
20 mm	Standard	PNP	NO	Resistant to cleaning agents, Visual adjustment indicator, IO-Link, Tempera-ture resistance	Male connector M12, 4-pin [1]	IMF30-20NPSNC0S	1076658

[1] With gold plated contact pins.

- **Sub product family:** IMF30
- **Cylindrical thread design:** M30
- **Installation type:** non-flush
- **Electrical wiring:** DC 3-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis
- **Info:** II 3G Ex ec IIC T4 Gc X, II 3D Ex tc T135 °C Dc X In the framework of directive 2014/34/EU (ATEX) and DIN EN ISO/IEC 80079-34, we would like to point out that the traceability of the ordered device to your customer is your responsibility (documentation of your customer and associated product data, such as part number, datcode, serial number).

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
20 mm	Standard	PNP	NO	Resistant to cleaning agents, Visual adjustment indicator, IO-Link, Tempera-ture resistance	Male connector M12, 4-pin [1]	IMF30-20NPSNC0SX02	1099584

[1] With gold plated contact pins.

- **Sub product family:** IMF30
- **Cylindrical thread design:** M30
- **Installation type:** flush
- **Electrical wiring:** DC 4-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
15 mm	Standard	PNP	Comple-mentary	Resistant to cleaning agents, IO-Link, Tempera-ture resistance	Male connector M12, 4-pin [1]	IMF30-15BPPNC0S	1076656

[1] With gold plated contact pins.

- **Sub product family:** IMF30
- **Cylindrical thread design:** M30
- **Installation type:** non-flush
- **Electrical wiring:** DC 4-wire
- **Smart Sensor:** Enhanced Sensing, efficient communication, diagnosis

Sensing range S_n	Housing	Switch-ing output	Output function	Special features	Connec-tion type	Type	Part no.
20 mm	Standard	PNP	Comple-mentary	Resistant to cleaning agents, IO-Link, Tempera-ture resistance	Male connector M12, 4-pin [1]	IMF30-20NPPNC0S	1076660

[1] With gold plated contact pins.

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is "Sensor Intelligence."

WORLDWIDE PRESENCE:

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