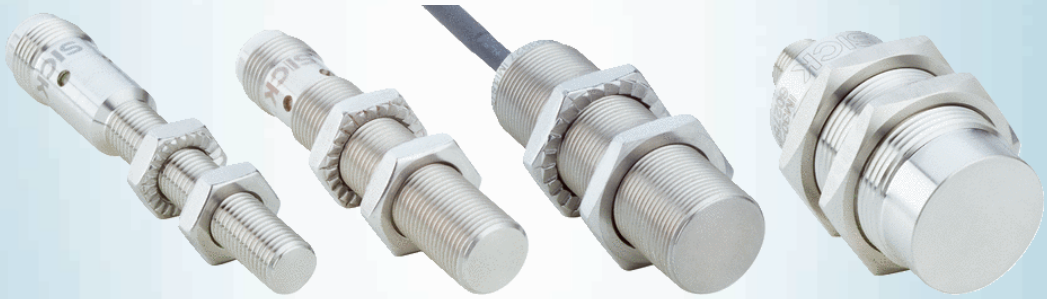
Product family overview



IMI

Rugged full metal sensors for use in challenging applications

SICK
Sensor Intelligence.

Advantages

Very long service life

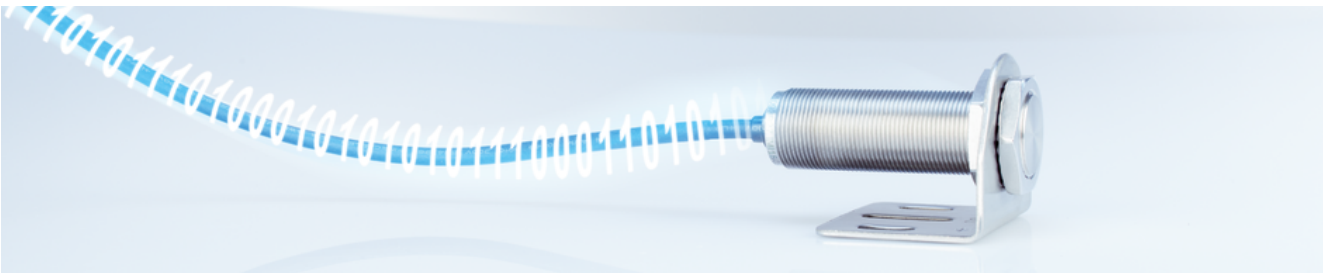
The housing including sensing face of the IMI inductive proximity sensors consists completely of high-strength stainless steel and the sensors have protection class IP68 or IP69K. The stable, leak-free sensors are an extremely rugged solution for challenging applications. This reduces downtimes and ensures very long service life.

Closed stainless-steel housing

Cleaning with brushes possible

Resistant to mechanical loads, such as shocks

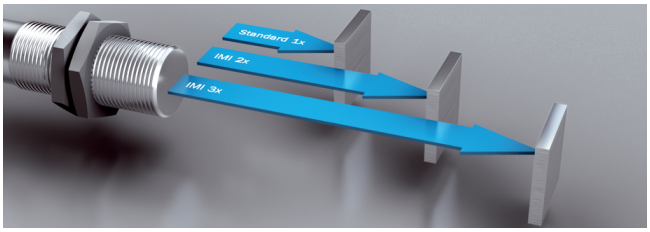
Rugged solution for any challenging applications thanks to closed housing



Large sensing ranges and IO-Link for stable processes and high plant availability

The larger the sensing range, the greater the operating reserves. The operating reserves in turn mean stable processes and high plant availability. The IMI offers two to three times the sensing ranges compared to normative requirements. These sensing ranges ensure maximum performance in their processes. The IMI is also equipped with IO-Link. The sensor detects the actual operational statuses and automatically provides the data to the process control. This means transparency down to the lowest field level so that your plant does not go into a standstill.

Transparency down to the lowest field level

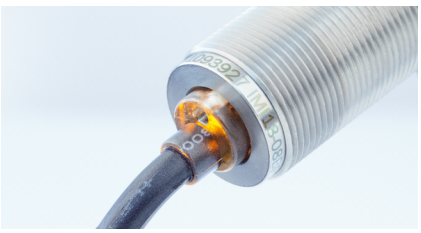


Thanks to the three-fold sensing range up to 40 mm, the IMI inductive proximity sensors offer large operating reserves.

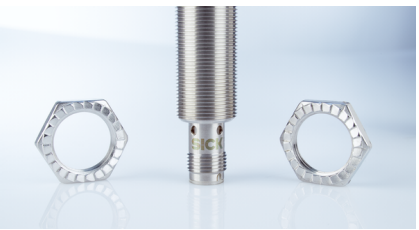
Stable processes and high plant availability thanks to large sensing ranges and IO-Link#

Quick and safe installation

The IMI can be installed quickly and easily, saving you valuable time. The supplied self-locking nuts facilitate mounting and ensure the sensors stay permanently attached. The IMI is equipped with a so-called visual adjustment indicator: The LED status change from flashing to steadily lit LED signalizes when the secured sensing range has been reached. This ensures the target object is detected throughout the entire temperature range. The unique and systematic type designation is affixed to the sensor so that is remains clearly visible.



Visual adjustment indicator: The LED signalizes when the secured sensing range has been reached



Self-locking stainless steel nuts are included with delivery for this purpose

Clearly visible laser marking in the long-term

Thanks to the visual adjustment indicator and self-locking nuts, installation of IMI sensors is quick and easy.

Flexible and cost-optimized application solutions

Full metal sensors are particularly well-suited for use in machine tools in the pharmaceutical, food and beverage industry. The IMI comes in different stainless steel versions: Rugged V2A stainless-steel housing for machine tool applications and food-safe V4A stainless-steel housing for hygienic and wet area applications. The complete portfolio of these full metal sensors makes it possible for you to solve the application flexibly and at optimal cost. Have you not found the right sensor for your application? We would be happy to implement your special wishes - precisely tailored to your requirements.

Optimized down to the last detail for machine tool applications or applications in the pharmaceutical, food and beverage industry.

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 ... 40 mm (depending on type)
Housing material	Stainless steel V2A / Stainless steel V4A (depending on type)
Enclosure rating	IP68, IP69K

Product description

In contrast to conventional proximity sensors, whose sensing face consists of plastic, the IMI inductive proximity sensors have a closed housing made completely of stainless steel. This feature makes the IMI ideal for use in challenging applications with mechanical and chemical loads, for instance shocks, quick temperature changes, daily cleaning with aggressive media, the effect of cooling lubricants. In addition, the IMI offers large sensing ranges and IO-Link communication. This ensure process stability and high plant availability as well as flexible and cost-optimized implementation of application solutions.

At a glance

- Types: M8 to M30
- Large sensing ranges: 2 mm to 40 mm
- Enclosure rating: IP68, IP69K
- Temperature range: –25 °C to +85 °C
- Option of rugged housing or housing suitable for the food industry made completely out of stainless steel
- IO-Link and visual adjustment indicator
- Resistant against oils, cooling lubricants and cleaning products

Your benefits

- Very long service life due to closed stainless-steel housing, resistance to oils, cooling lubricants and cleaning products
- Large sensing ranges and IO-Link for stable processes and high plant availability
- Quick and easy installation thanks to visual adjustment indicator and self-locking nuts
- Flexible and cost-optimized implementation of application solutions.thanks to large product portfolio
- Easy implementation of special customer-specific variants

Fields of application

- Query of coupling bend position in storage tanks
- Position monitoring for conveying lines in the food industry
- Position monitoring of globe valves
- Metal detection on transport belts in press shops
- Position detection of tools in automatic tool changers

Ordering information

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

- **Sub product family:** IM08
- **Cylindrical thread design:** M8
- **Installation type:** flush
- **Electrical wiring:** DC 3-wire
- **Sensing range S_n:** 3 mm

Switching output	Output function	Special features	Connection type	Type	Part no.
PNP	NO	Sensing face made of stainless steel V2A, Resistant against coolant lubricants, triple sensing range, Visual adjustment indicator, IO-Link	Connector M8, 3-pin	IM08-03BPS-VT1	6068715

- **Sub product family:** IM08
- **Cylindrical thread design:** M8
- **Installation type:** non-flush
- **Electrical wiring:** DC 3-wire
- **Sensing range S_n:** 6 mm

Switching output	Output function	Special features	Connection type	Type	Part no.
PNP	NO	Sensing face made of stainless steel V2A, Resistant against coolant lubricants, triple sensing range, Visual adjustment indicator, IO-Link	Connector M8, 3-pin	IM08-06NPS-VT1	6068716

- **Sub product family:** IMI08
- **Cylindrical thread design:** M8
- **Installation type:** flush
- **Electrical wiring:** DC 3-wire
- **Sensing range S_n:** 2 mm

Switching output	Output function	Special features	Connection type	Type	Part no.
NPN	NC	Sensing face made of stainless steel V2A, Resistant against coolant lubricants	Connector M8, 3-pin	IMI08-02BNOVT0S	1093884
		Sensing face made of stainless steel V4A, Resistant to cleaning agents	Male connector M12, 4-pin	IMI08-02BNONC0S	1093888
	NO	Sensing face made of stainless steel V2A, Resistant against coolant lubricants	Connector M8, 3-pin	IMI08-02BNSVT0S	1093883
		Sensing face made of stainless steel V4A, Resistant to cleaning agents	Male connector M12, 4-pin	IMI08-02BNSNC0S	1093887

Switching output	Output function	Special features	Connection type	Type	Part no.
PNP	NC	Sensing face made of stainless steel V2A, Resistant against coolant lubricants	Connector M8, 3-pin	IMI08-02BP0VT0S	1093882
		Sensing face made of stainless steel V4A, Resistant to cleaning agents	Male connector M12, 4-pin	IMI08-02BP0NC0S	1093886
	NO	Sensing face made of stainless steel V2A, Resistant against coolant lubricants	Connector M8, 3-pin	IMI08-02BPSVT0S	1093857
		Sensing face made of stainless steel V4A, Resistant to cleaning agents	Male connector M12, 4-pin	IMI08-02BPSNC0S	1093885

- **Sub product family:** IM12
- **Cylindrical thread design:** M12
- **Installation type:** flush
- **Electrical wiring:** DC 3-wire
- **Sensing range S_n:** 6 mm
- **Connection type:** male connector M12, 4-pin

Switching output	Output function	Special features	Type	Part no.
NPN	NO	Sensing face made of stainless steel V4A, Resistant to cleaning agents, triple sensing range, Visual adjustment indicator	IM12-06BNS-NC1	6027573
PNP	NC		IM12-06BP0-NC1	6027574
	NO	Sensing face made of stainless steel V2A, Resistant against coolant lubricants, triple sensing range, Visual adjustment indicator, IO-Link	IM12-06BPS-VC1	6068718
		Sensing face made of stainless steel V4A, Resistant to cleaning agents, triple sensing range, Visual adjustment indicator, IO-Link	IM12-06BPS-NC1	6027572

- **Sub product family:** IM12
- **Cylindrical thread design:** M12
- **Installation type:** non-flush
- **Electrical wiring:** DC 3-wire
- **Sensing range S_n:** 10 mm
- **Output function:** NO
- **Connection type:** male connector M12, 4-pin

Switching output	Special features	Type	Part no.
NPN	Sensing face made of stainless steel V4A, Resistant to cleaning agents, triple sensing range, Visual adjustment indicator	IM12-10NNS-NC1	6027576

Switching output	Special features	Type	Part no.
PNP	Sensing face made of stainless steel V2A, Resistant against coolant lubricants, triple sensing range, Visual adjustment indicator, IO-Link	IM12-10NPS-VC1	6068719
	Sensing face made of stainless steel V4A, Resistant to cleaning agents, triple sensing range, Visual adjustment indicator, IO-Link	IM12-10NPS-NC1	6027575

- **Sub product family:** IMI12
- **Cylindrical thread design:** M12
- **Installation type:** flush
- **Electrical wiring:** DC 3-wire
- **Sensing range S_n:** 4 mm

Switching output	Output function	Special features	Connection type	Type	Part no.
NPN	NC	Sensing face made of stainless steel V2A, Resistant against coolant lubricants	Cable, 3-wire, 2 m	IMI12-04BNOVU2S	1093896
			Male connector M12, 4-pin	IMI12-04BNOVC0S	1093892
		Sensing face made of stainless steel V4A, Resistant to cleaning agents	Cable, 3-wire, 2 m	IMI12-04BNONU2S	1093922
			Male connector M12, 4-pin	IMI12-04BNONC0S	1093918
	NO	Sensing face made of stainless steel V2A, Resistant against coolant lubricants	Cable, 3-wire, 2 m	IMI12-04BNSVU2S	1093895
			Male connector M12, 4-pin	IMI12-04BNSVC0S	1093891
		Sensing face made of stainless steel V4A, Resistant to cleaning agents	Cable, 3-wire, 2 m	IMI12-04BNSNU2S	1093921
			Male connector M12, 4-pin	IMI12-04BNSNC0S	1093917
PNP	NC	Sensing face made of stainless steel V2A, Resistant against coolant lubricants	Cable, 3-wire, 2 m	IMI12-04BPOVU2S	1093894
			Male connector M12, 4-pin	IMI12-04BPOVC0S	1093890
		Sensing face made of stainless steel V4A, Resistant to cleaning agents	Cable, 3-wire, 2 m	IMI12-04BPONU2S	1093920
			Male connector M12, 4-pin	IMI12-04BPONC0S	1093916
	NO	Sensing face made of stainless steel V2A, Resistant against coolant lubricants	Cable, 3-wire, 2 m	IMI12-04BPSVU2S	1093893
			Male connector M12, 4-pin	IMI12-04BPSVC0S	1093889
		Sensing face made of stainless steel V4A, Resistant to cleaning agents	Cable, 3-wire, 2 m	IMI12-04BPSNU2S	1093919
			Male connector M12, 4-pin	IMI12-04BPSNC0S	1093915

- **Sub product family:** IM18
- **Cylindrical thread design:** M18
- **Installation type:** flush
- **Electrical wiring:** DC 3-wire
- **Sensing range S_n:** 10 mm
- **Connection type:** male connector M12, 4-pin

Switching output	Output function	Special features	Type	Part no.
NPN	NO	Sensing face made of stainless steel V4A, Resistant to cleaning agents, triple sensing range, Visual adjustment indicator	IM18-10BNS-NC1	6027578
PNP	NC		IM18-10BPO-NC1	6027579
	NO	Sensing face made of stainless steel V2A, Resistant against coolant lubricants, triple sensing range, Visual adjustment indicator, IO-Link	IM18-10BPS-VC1	6068720
		Sensing face made of stainless steel V4A, Resistant to cleaning agents, triple sensing range, Visual adjustment indicator, IO-Link	IM18-10BPS-NC1	6027577

- **Sub product family:** IM18
- **Cylindrical thread design:** M18
- **Installation type:** non-flush
- **Electrical wiring:** DC 3-wire
- **Sensing range S_n:** 20 mm
- **Output function:** NO
- **Connection type:** male connector M12, 4-pin

Switching output	Special features	Type	Part no.
NPN	Sensing face made of stainless steel V4A, Resistant to cleaning agents, triple sensing range, Visual adjustment indicator	IM18-20NNS-NC1	6027581
PNP	Sensing face made of stainless steel V2A, Resistant against coolant lubricants, triple sensing range, Visual adjustment indicator, IO-Link	IM18-20NPS-VC1	6068721
	Sensing face made of stainless steel V4A, Resistant to cleaning agents, triple sensing range, Visual adjustment indicator, IO-Link	IM18-20NPS-NC1	6027580

- **Sub product family:** IMI18
- **Cylindrical thread design:** M18
- **Installation type:** flush
- **Electrical wiring:** DC 3-wire
- **Sensing range S_n:** 8 mm

Switching output	Output function	Special features	Connection type	Type	Part no.
NPN	NC	Sensing face made of stainless steel V2A, Resistant against coolant lubricants	Cable, 3-wire, 2 m	IMI18-08BN0VU2S	1093930
			Male connector M12, 4-pin	IMI18-08BN0VC0S	1093926
		Sensing face made of stainless steel V4A, Resistant to cleaning agents	Cable, 3-wire, 2 m	IMI18-08BN0NU2S	1093938
			Male connector M12, 4-pin	IMI18-08BN0NC0S	1093934
	NO	Sensing face made of stainless steel V2A, Resistant against coolant lubricants	Cable, 3-wire, 2 m	IMI18-08BNSVU2S	1093929
			Male connector M12, 4-pin	IMI18-08BNSVC0S	1093925
		Sensing face made of stainless steel V4A, Resistant to cleaning agents	Cable, 3-wire, 2 m	IMI18-08BNSNU2S	1093937
			Male connector M12, 4-pin	IMI18-08BNSNC0S	1093933
PNP	NC	Sensing face made of stainless steel V2A, Resistant against coolant lubricants	Cable, 3-wire, 2 m	IMI18-08BP0VU2S	1093928
			Male connector M12, 4-pin	IMI18-08BP0VC0S	1093924
		Sensing face made of stainless steel V4A, Resistant to cleaning agents	Cable, 3-wire, 2 m	IMI18-08BP0NU2S	1093936
			Male connector M12, 4-pin	IMI18-08BP0NC0S	1093932
	NO	Sensing face made of stainless steel V2A, Resistant against coolant lubricants	Cable, 3-wire, 2 m	IMI18-08BPSVU2S	1093927
			Male connector M12, 4-pin	IMI18-08BPSVC0S	1093923
		Sensing face made of stainless steel V4A, Resistant to cleaning agents	Cable, 3-wire, 2 m	IMI18-08BPSNU2S	1093935
			Male connector M12, 4-pin	IMI18-08BPSNC0S	1093931

- **Sub product family:** IM30
- **Cylindrical thread design:** M30
- **Installation type:** flush
- **Electrical wiring:** DC 3-wire
- **Sensing range S_n:** 20 mm
- **Output function:** NO
- **Connection type:** male connector M12, 4-pin

Switching output	Special features	Type	Part no.
NPN	Sensing face made of stainless steel V4A, Resistant to cleaning agents, triple sensing range, Visual adjustment indicator	IM30-20BNS-NC1	6027583
PNP	Sensing face made of stainless steel V2A, Resistant against coolant lubricants, triple sensing range, Visual adjustment indicator, IO-Link	IM30-20BPS-VC1	6068722
	Sensing face made of stainless steel V4A, Resistant to cleaning agents, triple sensing range, Visual adjustment indicator, IO-Link	IM30-20BPS-NC1	6027582

- **Sub product family:** IM30
- **Cylindrical thread design:** M30
- **Installation type:** non-flush
- **Electrical wiring:** DC 3-wire
- **Sensing range S_n:** 40 mm
- **Output function:** NO
- **Connection type:** male connector M12, 4-pin

Switching output	Special features	Type	Part no.
NPN	Sensing face made of stainless steel V4A, Resistant to cleaning agents, triple sensing range, Visual adjustment indicator	IM30-40NNS-NC1	6027585
PNP	Sensing face made of stainless steel V2A, Resistant against coolant lubricants, triple sensing range, Visual adjustment indicator, IO-Link	IM30-40NPS-VC1	6068723
	Sensing face made of stainless steel V4A, Resistant to cleaning agents, triple sensing range, Visual adjustment indicator, IO-Link	IM30-40NPS-NC1	6027584

- **Sub product family:** IMI30
- **Cylindrical thread design:** M30
- **Installation type:** flush
- **Electrical wiring:** DC 3-wire
- **Sensing range S_n:** 10 mm

Switching output	Output function	Special features	Connection type	Type	Part no.
NPN	NC	Sensing face made of stainless steel V2A, Resistant against coolant lubricants	Cable, 3-wire, 2 m	IMI30-10BNOVU2S	1093946
			Male connector M12, 4-pin	IMI30-10BNOVC0S	1093942
		Sensing face made of stainless steel V4A, Resistant to cleaning agents	Cable, 3-wire, 2 m	IMI30-10BNONU2S	1093955
			Male connector M12, 4-pin	IMI30-10BNONC0S	1093950
	NO	Sensing face made of stainless steel V2A, Resistant against coolant lubricants	Cable, 3-wire, 2 m	IMI30-10BNSVU2S	1093945
			Male connector M12, 4-pin	IMI30-10BNSVC0S	1093941
		Sensing face made of stainless steel V4A, Resistant to cleaning agents	Cable, 3-wire, 2 m	IMI30-10BNSNU2S	1093954
			Male connector M12, 4-pin	IMI30-10BNSNC0S	1093949
PNP	NC	Sensing face made of stainless steel V2A, Resistant against coolant lubricants	Cable, 3-wire, 2 m	IMI30-10BPOVU2S	1093944
			Male connector M12, 4-pin	IMI30-10BPOVC0S	1093940
		Sensing face made of stainless steel V4A, Resistant to cleaning agents	Cable, 3-wire, 2 m	IMI30-10BPONU2S	1093953
			Male connector M12, 4-pin	IMI30-10BPONC0S	1093948
	NO	Sensing face made of stainless steel V2A, Resistant against coolant lubricants	Cable, 3-wire, 2 m	IMI30-10BPSVU2S	1093943
			Male connector M12, 4-pin	IMI30-10BPSVC0S	1093939
		Sensing face made of stainless steel V4A, Resistant to cleaning agents	Cable, 3-wire, 2 m	IMI30-10BPSNU2S	1093951
			Male connector M12, 4-pin	IMI30-10BPSNC0S	1093947

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:

Contacts and other locations –www.sick.com

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