IMC

Four times the switching capability with inductive intelligence

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.

Technical data overview

Housing	Cylindrical thread design / rectangular (depending on type)
Thread size	M8 x 1 M12 x 1 M18 x 1 M30 x 1.5
Dimensions	10 mm x 28 mm x 16 mm 12 mm x 40 mm x 26 mm
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 V2A / plastic (depending on type)
Enclosure rating	IP68 / IP69K / IP68 (depending on type)

Product description

The inductive, intelligent, and, thanks to IO-Link 1.1, communication-enabled IMC proximity sensors offer a whole host of new options to make handling applications easier and more reliable in every industry. Up to four individual switching points or windows including the hysteresis can be set. Equipped with two freely programmable switching end stages, an IMC can therefore replace several conventional devices. Adjustable switch-on and switch-off delays help to reliably suppress unwanted switching pulses in harsh environments. The additional on-board functions, such as logic modules, temperature measurement, counters, or time measurement enable complex tasks to be completed with ease directly in the sensor.

At a glance

- Types: M8 to M30; IQ10 and IQ12
- Four programmable switching points or windows at an Sn of up to 20 mm
- Freely programmable output function
- Enclosure rating: IP 68, IP 69K
- Temperature range: –40 °C to +75 °C
- Rugged stainless-steel or VISTAL housing
- Logic, counter, time measurement, or temperature monitoring function
- IO-Link 1.1

Your benefits

- Advanced diagnostic options ensure stable processes
- Programmable switching thresholds and windows make predictive maintenance easier and reduce machine downtimes
- Switching point teaching enables precise object positioning without the need for time-consuming adjustment
- Reduced costs as fewer sensors or sensor variants are required
- Stable signals thanks to integrated debounce function
- Reduced project planning and cabling work as complex tasks are easy to implement directly in the process
- Future-proof thanks to IO-Link 1.1 communication

Fields of application

- Open and closed position on valves and grippers with just one sensor
- Component wear monitoring
- Distinguishing between materials in the machine tools industry
- Distinguishing between objects in the handling industry
- Monitoring of industrial brakes
- Precise stopping in the handling industry
- Quality control in mechanical production

Ordering information

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

- **Sub product family:** IMC08
- **Cylindrical thread design:** M8
- **Installation type:** flush
- **Electrical wiring:** DC 4-wire
- **Special features:** Smart Task, Resistant against coolant lubricants, IO-Link

Sensing range S_n	Switching output	Output function	Connection type	Smart Sensor	Type	Part no.
0 mm … 2 mm [1]	PNP	NC, NO	Male connector M12, 4-pin [2]	Enhanced Sensing (Counter + debouncing) Efficient communication Diagnosis Smart Task	IMC08-02BP-PVC0SA71	1079282
				Enhanced Sensing (Time measurement + debouncing) Efficient communication Diagnosis Smart Task	IMC08-02BP-PVC0SA70	1079281
				Enhanced Sensing (base logics) Efficient communication Diagnosis Smart Task	IMC08-02BP-PVC0SA00	1079280

[1] Adjustable.

[2] With gold plated contact pins.

- **Sub product family:** IMC08
- **Cylindrical thread design:** M8
- **Installation type:** non-flush
- **Electrical wiring:** DC 4-wire
- **Special features:** Smart Task, Resistant against coolant lubricants, IO-Link

Sensing range S_n	Switching output	Output function	Connection type	Smart Sensor	Type	Part no.
0 mm … 4 mm [1]	PNP	NC, NO	Male connector M12, 4-pin [2]	Enhanced Sensing (Counter + debouncing) Efficient communication Diagnosis Smart Task	IMC08-04NPPVC0SA71	1079285
				Enhanced Sensing (Time measurement + debouncing) Efficient communication Diagnosis Smart Task	IMC08-04NPPVC0SA70	1079284
				Enhanced Sensing (base logics)	IMC08-04NPPVC0SA00	1079283

[1] Adjustable.

[2] With gold plated contact pins.

Sensing range S_n	Switching output	Output function	Connection type	Smart Sensor	Type	Part no.
				Efficient communication Diagnosis Smart Task		

[1] Adjustable.

[2] With gold plated contact pins.

- **Sub product family:** IMC12
- **Cylindrical thread design:** M12
- **Installation type:** flush
- **Electrical wiring:** DC 4-wire

Sensing range S_n	Switching output	Output function	Special features	Connection type	Smart Sensor	Type	Part no.
0 mm ... 4 mm [1]	PNP	NC, NO	Smart Task, Resistant against coolant lubricants, IO-Link	Male connector M12, 4-pin [2]	Enhanced Sensing (Counter + debouncing) Efficient communication Diagnosis Smart Task	IMC12-04BP-PVC0SA71	1079288
					Enhanced Sensing (Time measurement + debouncing) Efficient communication Diagnosis Smart Task	IMC12-04BP-PVC0SA70	1079287
					Enhanced Sensing (base logics) Efficient communication Diagnosis Smart Task	IMC12-04BP-PVC0SA00	1079286
0 mm ... 4 mm [3]	PNP	NO	IO-Link	Male connector M12, 4-pin [2]	–	IMC12-04BP-PVC0SB02	1097434

[1] Adjustable.

[2] With gold plated contact pins.

[3] Adjustable, with fixed offset.

- **Sub product family:** IMC12
- **Cylindrical thread design:** M12
- **Installation type:** non-flush
- **Electrical wiring:** DC 4-wire
- **Special features:** Smart Task, Resistant against coolant lubricants, IO-Link

Sensing range S_n	Switching output	Output function	Connection type	Smart Sensor	Type	Part no.
0 mm ... 8 mm [1]	PNP	NC, NO	Male connector M12, 4-pin [2]	Enhanced Sensing (Counter + debouncing) Efficient communication Diagnosis Smart Task	IMC12-08NPPVC0SA71	1079291
				Enhanced Sensing (Time measurement + debouncing) Efficient communication Diagnosis Smart Task	IMC12-08NPPVC0SA70	1079290
				Enhanced Sensing (base logics) Efficient communication Diagnosis Smart Task	IMC12-08NPPVC0SA00	1079289
					IMC12-08NPPVC0SB00	1093141

[1] Adjustable.

[2] With gold plated contact pins.

- **Sub product family:** IMC18
- **Cylindrical thread design:** M18
- **Installation type:** quasi-flush
- **Electrical wiring:** DC 4-wire
- **Special features:** Smart Task, Resistant against coolant lubricants, IO-Link

Sensing range S_n	Switching output	Output function	Connection type	Smart Sensor	Type	Part no.
0 mm ... 8 mm [1]	PNP	NC, NO	Male connector M12, 4-pin [2]	Enhanced Sensing (Counter + debouncing) Efficient communication Diagnosis Smart Task	IMC18-08BP-PVC0SA71	1079294
				Enhanced Sensing (Time measurement + debouncing) Efficient communication Diagnosis Smart Task	IMC18-08BP-PVC0SA70	1079293
				Enhanced Sensing (base logics) Efficient communication Diagnosis	IMC18-08BP-PVC0SA00	1079292

[1] Adjustable.

[2] With gold plated contact pins.

Sensing range S$_n$	Switching output	Output function	Connection type	Smart Sensor	Type	Part no.
				Smart Task		

[1] Adjustable.

[2] With gold plated contact pins.

- **Sub product family:** IMC18
- **Cylindrical thread design:** M18
- **Installation type:** non-flush
- **Electrical wiring:** DC 4-wire
- **Special features:** Smart Task, Resistant against coolant lubricants, IO-Link

Sensing range S$_n$	Switching output	Output function	Connection type	Smart Sensor	Type	Part no.
0 mm ... 12 mm [1]	PNP	NC, NO	Male connector M12, 4-pin [2]	Enhanced Sensing (Counter + debouncing) Efficient communication Diagnosis Smart Task	IMC18-12NPPVC0SA71	1079297
				Enhanced Sensing (Time measurement + debouncing) Efficient communication Diagnosis Smart Task	IMC18-12NPPVC0SA70	1079296
				Enhanced Sensing (base logics) Efficient communication Diagnosis Smart Task	IMC18-12NPPVC0SA00	1079295
0 mm ... 12 mm [3]	PNP	NC, NO	Male connector M12, 4-pin [2]		IMC18-12NPPVC0SB00	1093167

[1] Adjustable.

[2] With gold plated contact pins.

[3] Adjustable. Teaching outside of the value range is not permitted since hysteresis and temperature drift can no longer be kept.

- **Sub product family:** IMC30
- **Cylindrical thread design:** M30
- **Installation type:** flush
- **Electrical wiring:** DC 4-wire
- **Special features:** Smart Task, Resistant against coolant lubricants, IO-Link

Sensing range S_n	Switching output	Output function	Connection type	Smart Sensor	Type	Part no.
0 mm … 15 mm [1]	PNP	NC, NO	Male connector M12, 4-pin [2]	Enhanced Sensing (Counter + debouncing) Efficient communication Diagnosis Smart Task	IMC30-15BP-PVC0SA71	1079300
				Enhanced Sensing (Time measurement + debouncing) Efficient communication Diagnosis Smart Task	IMC30-15BP-PVC0SA70	1079299
				Enhanced Sensing (base logics) Efficient communication Diagnosis Smart Task	IMC30-15BP-PVC0SA00	1079298

[1] Adjustable.
[2] With gold plated contact pins.

- **Sub product family:** IMC30
- **Cylindrical thread design:** M30
- **Installation type:** non-flush
- **Electrical wiring:** DC 4-wire
- **Special features:** Smart Task, Resistant against coolant lubricants, IO-Link

Sensing range S_n	Switching output	Output function	Connection type	Smart Sensor	Type	Part no.
0 mm … 20 mm [1]	PNP	NC, NO	Male connector M12, 4-pin [2]	Enhanced Sensing (Counter + debouncing) Efficient communication Diagnosis Smart Task	IMC30-20NPPVC0SA71	1079303
				Enhanced Sensing (Time measurement + debouncing) Efficient communication Diagnosis Smart Task	IMC30-20NPPVC0SA70	1079302
				Enhanced Sensing (base logics) Efficient communication Diagnosis	IMC30-20NPPVC0SA00	1079301

[1] Adjustable.
[2] With gold plated contact pins.

Sensing range S_n	Switching output	Output function	Connection type	Smart Sensor	Type	Part no.
				Smart Task		

[1] Adjustable.

[2] With gold plated contact pins.

- **Sub product family:** IQC10
- **Cuboid shape (W x H x D):** 10 mm x 28 mm x 16 mm
- **Installation type:** flush
- **Electrical wiring:** DC 4-wire
- **Special features:** Smart Task, IO-Link

Sensing range S_n	Switching output	Output function	Connection type	Smart Sensor	Type	Part no.
0 mm ... 3 mm [1]	PNP	NC, NO	Cable with M12 male connector, 4-pin, 0.2 m [2]	Enhanced Sensing (Counter + debouncing) Efficient communication Diagnosis Smart Task	IQC10-03BPP-KQ8SA71	1083795
				Enhanced Sensing (Time measurement + debouncing) Efficient communication Diagnosis Smart Task	IQC10-03BPP-KQ8SA70	1083794
				Enhanced Sensing (base logics) Efficient communication Diagnosis Smart Task	IQC10-03BPP-KQ8SA00	1083793

[1] Adjustable.

[2] With gold plated contact pins.

- **Sub product family:** IQC12
- **Cuboid shape (W x H x D):** 12 mm x 40 mm x 26 mm
- **Installation type:** flush
- **Electrical wiring:** DC 4-wire
- **Special features:** Smart Task, IO-Link

Sensing range S_n	Switching output	Output function	Connection type	Smart Sensor	Type	Part no.
0 mm … 4 mm [1]	PNP	NC, NO	Cable with M12 male connector, 4-pin, 0.2 m [2]	Enhanced Sensing (Counter + debouncing) Efficient communication Diagnosis Smart Task	IQC12-04BPP-KQ8SA71	1083798
				Enhanced Sensing (Time measurement + debouncing) Efficient communication Diagnosis Smart Task	IQC12-04BPP-KQ8SA70	1083797
				Enhanced Sensing (base logics) Efficient communication Diagnosis Smart Task	IQC12-04BPP-KQ8SA00	1083796

[1] Adjustable.

[2] 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."

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