IMC

Inductive distance sensors with IO-Link for industrial use

SICK
Sensor Intelligence.

Technical data overview

Housing	Metric / 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: IP68, IP69K
- 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
- **Sensing range S_n:** 0 mm ... 2 mm (Adjustable.)
- **Cylindrical thread design:** M8
- **Switching output:** PNP
- **Installation type:** flush
- **Output function:** NC, NO
- **Special features:** Smart Task, Resistant against coolant lubricants, IO-Link
- **Electrical wiring:** DC 4-wire
- **Connection type:** male connector M12, 4-pin (With gold plated contact pins.)

Smart Sensor	Type	Part no.
Enhanced Sensing, efficient communication, diagnosis, Smart Task (Counter + debouncing)	IMC08-02BPPVC0SA71	1079282
Enhanced Sensing, efficient communication, diagnosis, Smart Task (Time measurement + debouncing)	IMC08-02BPPVC0SA70	1079281
Enhanced Sensing, efficient communication, diagnosis, Smart Task (base logics)	IMC08-02BPPVC0SA00	1079280

- **Sub product family:** IMC08
- **Sensing range S_n:** 0 mm ... 4 mm (Adjustable.)
- **Cylindrical thread design:** M8
- **Switching output:** PNP
- **Installation type:** non-flush
- **Output function:** NC, NO
- **Special features:** Smart Task, Resistant against coolant lubricants, IO-Link
- **Electrical wiring:** DC 4-wire
- **Connection type:** male connector M12, 4-pin (With gold plated contact pins.)

Smart Sensor	Type	Part no.
Enhanced Sensing, efficient communication, diagnosis, Smart Task (Counter + debouncing)	IMC08-04NPPVC0SA71	1079285
Enhanced Sensing, efficient communication, diagnosis, Smart Task (Time measurement + debouncing)	IMC08-04NPPVC0SA70	1079284
Enhanced Sensing, efficient communication, diagnosis, Smart Task (base logics)	IMC08-04NPPVC0SA00	1079283

- **Sub product family:** IMC12
- **Sensing range S_n:** 0 mm ... 4 mm (Adjustable, with fixed offset.)
- **Cylindrical thread design:** M12
- **Switching output:** PNP

Installation type	Output function	Special features	Electrical wiring	Connection type	Type	Part no.
Flush	NO	IO-Link	DC 4-wire	Male connector M12, 4-pin [1]	IMC12-04BPPVC0SB02	1097434

[1] With gold plated contact pins.

- **Sub product family:** IMC12
- **Sensing range S$_n$:** 0 mm … 4 mm (Adjustable.)
- **Cylindrical thread design:** M12
- **Switching output:** PNP
- **Installation type:** flush
- **Output function:** NC, NO
- **Special features:** Smart Task, Resistant against coolant lubricants, IO-Link
- **Electrical wiring:** DC 4-wire
- **Connection type:** male connector M12, 4-pin (With gold plated contact pins.)

Smart Sensor	Type	Part no.
Enhanced Sensing, efficient communication, diagnosis, Smart Task (Counter + debouncing)	IMC12-04BPPVC0SA71	1079288
Enhanced Sensing, efficient communication, diagnosis, Smart Task (Time measurement + debouncing)	IMC12-04BPPVC0SA70	1079287
Enhanced Sensing, efficient communication, diagnosis, Smart Task (base logics)	IMC12-04BPPVC0SA00	1079286

- **Sub product family:** IMC12
- **Sensing range S$_n$:** 0 mm … 8 mm (Adjustable.)
- **Cylindrical thread design:** M12
- **Switching output:** PNP
- **Installation type:** non-flush
- **Output function:** NC, NO
- **Special features:** Smart Task, Resistant against coolant lubricants, IO-Link
- **Electrical wiring:** DC 4-wire
- **Connection type:** male connector M12, 4-pin (With gold plated contact pins.)

Smart Sensor	Type	Part no.
Enhanced Sensing, efficient communication, diagnosis, Smart Task (Counter + debouncing)	IMC12-08NPPVC0SA71	1079291
Enhanced Sensing, efficient communication, diagnosis, Smart Task (Time measurement + debouncing)	IMC12-08NPPVC0SA70	1079290
Enhanced Sensing, efficient communication, diagnosis, Smart Task (base logics)	IMC12-08NPPVC0SB00	1093141
	IMC12-08NPPVC0SA00	1079289

- **Sub product family:** IMC18
- **Sensing range S$_n$:** 0 mm … 8 mm (Adjustable.)
- **Cylindrical thread design:** M18
- **Switching output:** PNP
- **Installation type:** quasi-flush
- **Output function:** NC, NO
- **Special features:** Smart Task, Resistant against coolant lubricants, IO-Link
- **Electrical wiring:** DC 4-wire
- **Connection type:** male connector M12, 4-pin (With gold plated contact pins.)

Smart Sensor	Type	Part no.
Enhanced Sensing, efficient communication, diagnosis, Smart Task (Counter + debouncing)	IMC18-08BPPVC0SA71	1079294
Enhanced Sensing, efficient communication, diagnosis, Smart Task (Time measurement + debouncing)	IMC18-08BPPVC0SA70	1079293
Enhanced Sensing, efficient communication, diagnosis, Smart Task (base logics)	IMC18-08BPPVC0SA00	1079292

- **Sub product family:** IMC18
- **Sensing range S$_n$:** 0 mm … 12 mm (Adjustable. Teaching outside of the value range is not permitted since hysteresis and temperature drift can no longer be kept.)
- **Cylindrical thread design:** M18
- **Switching output:** PNP
- **Installation type:** non-flush
- **Output function:** NC, NO

Special features	Electrical wiring	Connection type	Smart Sensor	Type	Part no.
Smart Task, Resistant against coolant lubricants, IO-Link	DC 4-wire	Male connector M12, 4-pin [1]	Enhanced Sensing, efficient communication, diagnosis, Smart Task (base logics)	IMC18-12NPPVC0SB00	1093167

[1] With gold plated contact pins.

- **Sub product family:** IMC18
- **Sensing range S$_n$:** 0 mm … 12 mm (Adjustable.)
- **Cylindrical thread design:** M18
- **Switching output:** PNP
- **Installation type:** non-flush
- **Output function:** NC, NO
- **Special features:** Smart Task, Resistant against coolant lubricants, IO-Link
- **Electrical wiring:** DC 4-wire
- **Connection type:** male connector M12, 4-pin (With gold plated contact pins.)

Smart Sensor	Type	Part no.
Enhanced Sensing, efficient communication, diagnosis, Smart Task (Counter + debouncing)	IMC18-12NPPVC0SA71	1079297
Enhanced Sensing, efficient communication, diagnosis, Smart Task (Time measurement + debouncing)	IMC18-12NPPVC0SA70	1079296
Enhanced Sensing, efficient communication, diagnosis, Smart Task (base logics)	IMC18-12NPPVC0SA00	1079295

- **Sub product family:** IMC30
- **Sensing range S$_n$:** 0 mm … 15 mm (Adjustable.)
- **Cylindrical thread design:** M30
- **Switching output:** PNP
- **Installation type:** flush
- **Output function:** NC, NO
- **Special features:** Smart Task, Resistant against coolant lubricants, IO-Link
- **Electrical wiring:** DC 4-wire
- **Connection type:** male connector M12, 4-pin (With gold plated contact pins.)

Smart Sensor	Type	Part no.
Enhanced Sensing, efficient communication, diagnosis, Smart Task (Counter + debouncing)	IMC30-15BPPVC0SA71	1079300
Enhanced Sensing, efficient communication, diagnosis, Smart Task (Time measurement + debouncing)	IMC30-15BPPVC0SA70	1079299
Enhanced Sensing, efficient communication, diagnosis, Smart Task (base logics)	IMC30-15BPPVC0SA00	1079298

- **Sub product family:** IMC30
- **Sensing range S$_n$:** 0 mm … 20 mm (Adjustable.)
- **Cylindrical thread design:** M30
- **Switching output:** PNP
- **Installation type:** non-flush
- **Output function:** NC, NO
- **Special features:** Smart Task, Resistant against coolant lubricants, IO-Link
- **Electrical wiring:** DC 4-wire
- **Connection type:** male connector M12, 4-pin (With gold plated contact pins.)

Smart Sensor	Type	Part no.
Enhanced Sensing, efficient communication, diagnosis, Smart Task (Counter + debouncing)	IMC30-20NPPVC0SA71	1079303
Enhanced Sensing, efficient communication, diagnosis, Smart Task (Time measurement + debouncing)	IMC30-20NPPVC0SA70	1079302
Enhanced Sensing, efficient communication, diagnosis, Smart Task (base logics)	IMC30-20NPPVC0SA00	1079301

- **Sub product family:** IQC10
- **Sensing range S$_n$:** 0 mm … 3 mm (Adjustable.)
- **Cuboid shape (W x H x D):** 10 mm x 28 mm x 16 mm
- **Switching output:** PNP
- **Installation type:** flush
- **Output function:** NC, NO
- **Special features:** Smart Task, IO-Link
- **Electrical wiring:** DC 4-wire
- **Connection type:** Cable with M12 male connector, 4-pin, 0.2 m (With gold plated contact pins.)

Smart Sensor	Type	Part no.
Enhanced Sensing, efficient communication, diagnosis, Smart Task (Counter + debouncing)	IQC10-03BPPKQ8SA71	1083795
Enhanced Sensing, efficient communication, diagnosis, Smart Task (Time measurement + debouncing)	IQC10-03BPPKQ8SA70	1083794
Enhanced Sensing, efficient communication, diagnosis, Smart Task (base logics)	IQC10-03BPPKQ8SA00	1083793

- **Sub product family:** IQC12
- **Sensing range S$_n$:** 0 mm … 4 mm (Adjustable.)
- **Cuboid shape (W x H x D):** 12 mm x 40 mm x 26 mm
- **Switching output:** PNP
- **Installation type:** flush
- **Output function:** NC, NO
- **Special features:** Smart Task, IO-Link
- **Electrical wiring:** DC 4-wire
- **Connection type:** Cable with M12 male connector, 4-pin, 0.2 m (With gold plated contact pins.)

Smart Sensor	Type	Part no.
Enhanced Sensing, efficient communication, diagnosis, Smart Task (Counter + debouncing)	IQC12-04BPPKQ8SA71	1083798
Enhanced Sensing, efficient communication, diagnosis, Smart Task (Time measurement + debouncing)	IQC12-04BPPKQ8SA70	1083797
Enhanced Sensing, efficient communication, diagnosis, Smart Task (base logics)	IQC12-04BPPKQ8SA00	1083796

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**

SICK AG | Waldkirch | Germany | www.sick.com

SICK
Sensor Intelligence.