Product family overview

IDF

Easily and reliably detecting double films

SICK
Sensor Intelligence.

Technical data overview

Housing	Metric
Thread size	M8 x 1 M12 x 1
Diameter	Ø 8 mm / Ø 12 mm (depending on type)
Sensing range S_n	2 mm / 4 mm (depending on type)
Housing material	Stainless steel V2A
Enclosure rating	IP68, IP69K

Product description

Detecting double layers in film stack processes, e.g. in battery production, is a huge challenge. The new IDF double film sensors reliably detect whether a suction gripper has picked up one or several films and ensure that the unwanted double film is immediately sorted out. Due to its small size, the sensor can be integrated directly into the gripper. In addition, in contrast to other solutions, the IDF does not need a receiver unit. It thus detects the films as soon as they are picked by the gripper, so only from one film side. This speeds up the process times.
Teaching-in different films is done in mere seconds, and can be performed either by teach-in via a cable or via IO-Link.

At a glance

- Sizes: M8 and M12
- Detection of metallic double films
- Electrical configuration: DC, 4-conductor
- Temperature range: −25 °C ... +70 °C
- Enclosure rating: IP68
- Detection regardless of the gripper position
- Teach-in via cable or IO-Link

Your benefits

- Detection is done directly when film is picked up by the gripper, which speeds up process times
- Improves process quality thanks to immediate detection of double layers
- Quick commissioning thanks to teach-in via cable or IO-Link
- Quick format change thanks to teach-in via cable or IO-Link
- Small size enables freedom with respect to machine design
- Thanks to diagnosis options via IO-Link, the IDF detects even double film layers which were very difficult to detect up to now. This improves the process stability.

Fields of application

- Detection of double films and cell stacking in battery production
- Detection of double films when packaging pharmaceutical products

Ordering information

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

- **Cylindrical thread design:** M8
- **Installation type:** flush
- **Electrical wiring:** DC 4-wire
- **Smart Sensor:** Smart Task, Enhanced Sensing, efficient communication, diagnosis
- **Sensing range S_n:** 0 mm ... 2 mm (Adjustable.)

Switching output	Output function	Special features	Connection type	Type	Part no.
PNP	NO	Double film sensor, Resistant against coolant lubricants	Male connector M12, 4-pin [1]	IMC08-02BPPVC0SC05	1084804

[1] With gold plated contact pins.

- **Cylindrical thread design:** M12
- **Installation type:** flush
- **Electrical wiring:** DC 4-wire
- **Smart Sensor:** Smart Task, Enhanced Sensing, efficient communication, diagnosis
- **Sensing range S_n:** 0 mm ... 4 mm (Adjustable.)

Switching output	Output function	Special features	Connection type	Type	Part no.
PNP	NO	Double film sensor, Resistant against coolant lubricants	Male connector M12, 4-pin [1]	IMC12-04BPPVC0SC05	1084803

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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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