

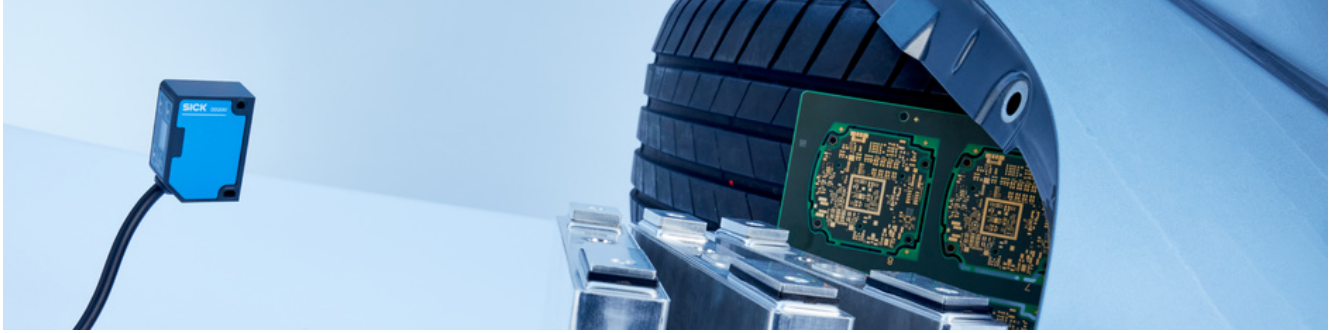


OD200

More productivity through simple and reliable distance measurement

SICK
Sensor Intelligence.

Advantages



For the challenges of today and tomorrow

New materials and future technologies such as battery production or the semiconductor industry are increasing the requirements for error-free distance measurement. Complex surfaces can significantly increase the error rate. The solution: the OD200. The sensor keeps waste to a minimum with its surface-independent measurement quality – for sustainable and efficient production that is ready for the future.



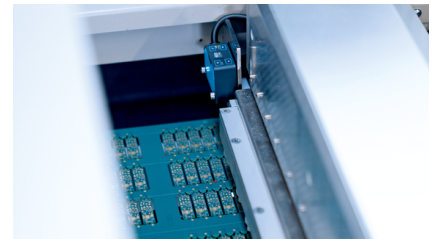
Quality check

The OD200 inspects complex geometries and diverse structures for production defects – for reliable measurements regardless of the surface.



Pick and place

There is hardly any time for the correct position detection of miniature PCBAs and small battery cells in fast production processes. The OD200 delivers precise measured values almost in real time at a measuring frequency of up to 3 kHz.

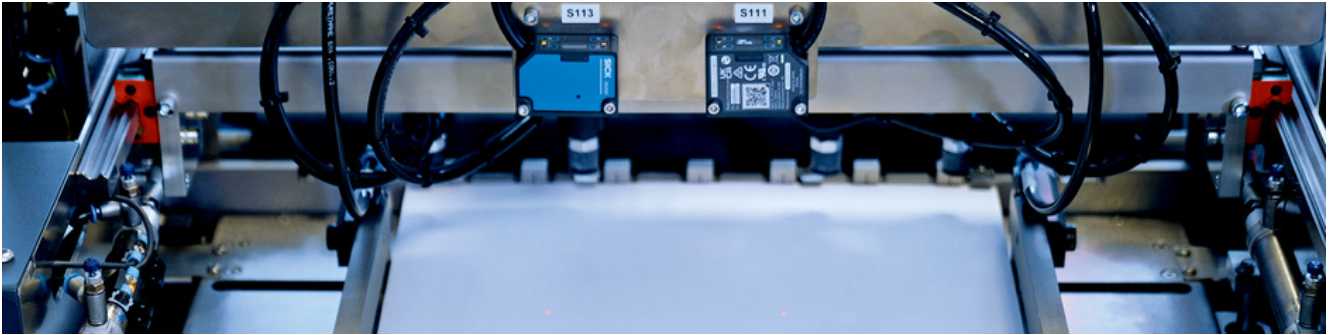


Distance and position

When installation space becomes a limiting factor, the OD200 comes into its own. The sensor combines measurement, evaluation and communication interface in its miniature housing.

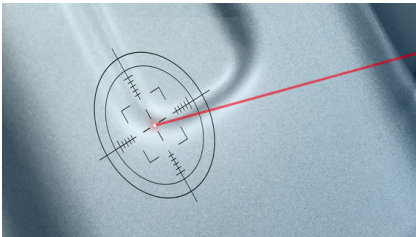


The compact housing and the material-independent measurement quality make the sensor a suitable solution for many different applications.



Stable performance for more productivity

Reliable measurement data for demanding surfaces: The OD200 delivers consistently high measurement quality – even with highly reflective objects or complex structured surfaces. Automated applications continuously receive precise data. The result: high availability and increased throughput, while the sensor effectively prevents costly system downtimes.



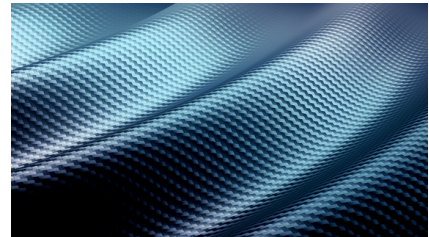
Increased repeatability for more reliable results

The newly developed optic unit with optimized light spot geometry ensures consistently precise measurement results.



High scanning frequency for more throughput

With up to 3 kHz, object edges can be detected with particular precision, allowing machines to cycle faster.



High signal dynamics for complex materials

Whether paper-based materials or composite materials – the OD200 precisely detects even hard-to-detect surfaces and is therefore equipped for the challenges of today and tomorrow.



The high stability of the measured values ensures a reliable data basis and thus forms the basis for optimizing the productivity of the systems.



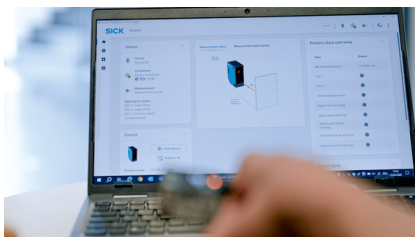
Quickly integrated. Easy to operate.

High performance in miniature format: The OD200 is suitable for tight installation spaces. Thanks to standard components and common interfaces, the sensor can be easily integrated into new and existing systems. The precise OLED display, tactile buttons and intuitive menu navigation ensure that the sensor is easy to adjust.



Plug and play

Simply install and get started: Thanks to smart factory settings, there is no need for additional parameterization for many applications.



Configuration and visualization

SICK's own software enables additional sensor settings and functions with ease.



IO-Link

Thanks to the modern IO-Link interface, the sensor is highly compatible and future-oriented.



Convenient integration and intuitive operation reduce the effort required for commissioning and ongoing operation.



Technical data overview

Communication interface	IO-Link
Measuring range	25 mm ... 160 mm (depending on type)
Linearity	$\pm 10 \mu\text{m}$... $\pm 100 \mu\text{m}$ (depending on type)
Laser class	1
Typ. light spot size (distance)	200 μm x 500 μm (30 mm) 300 μm x 700 μm (50 mm) 500 μm x 1,600 μm (110 mm)
Housing material	Metal
Connection type	Cable with plug M12, 5-pin, 345 mm

Product description

The compact OD200 displacement sensor delivers precise micrometer-range distance measurements—even on challenging surfaces like structured composites or shiny metals—without the need for a separate amplifier. Its compact housing, wide measuring range, and intelligent signal processing make it ideal for tight spaces and tough environments. Designed for flexibility across various applications, the OD200 is easy to integrate and configure thanks to its plug-and-play setup and smart factory settings, making it a powerful, stand-alone solution for boosting productivity.

At a glance

- Repeatability: 2 μm ... 20 μm
- Linearity: $\pm 10 \mu\text{m}$... 100 μm
- Measuring frequency: up to 3 kHz
- Intuitive configuration via OLED display, IO-Link and SOPAS ET
- Measuring ranges from 25 mm to 160 mm
- Laser class 1
- Analogue and digital output with IO-Link interface
- Robust miniature housing

Your benefits

- Consistent high-quality measurements – regardless of the target
- Reliable measurement on structured, deep black and glossy surfaces thanks to a high-performance optical system and improved signal processing
- High measurement frequency designed for applications needing speed
- Smart factory settings and intuitive interfaces allow for easy configuration and integration
- Particularly economical to use thanks to high performance and comparatively low acquisition costs
- Reliable performance in challenging ambient lighting
- Fast IO-Link integration with SOPAS software

Fields of application

- Positioning tasks in robotic, handling, and mounting applications
- Quality control and testing of production tolerances
- Precise control of print heads
- Positioning control of dosing and welding robots
- Height control and component inspection in PCB assembly

Ordering information

Other models and accessories → www.sick.com/OD200

- **Communication interface:** IO-Link
- **Digital output:** 1 x PNP/NPN, selectable
- **Type of analog output:** Current output / voltage output
- **Laser class:** 1
- **Housing material:** metal
- **Connection type:** cable with plug M12, 5-pin, 345 mm

Measuring range	Linearity	Typ. light spot size (distance)	Type	Part no.
25 mm ... 35 mm	± 10 µm	200 µm x 500 µm (30 mm)	OD200-0301W15	6086978
35 mm ... 65 mm	± 30 µm	300 µm x 700 µm (50 mm)	OD200-0501W15	6086980
60 mm ... 160 mm	± 100 µm	500 µm x 1,600 µm (110 mm)	OD200-1101W15	6086982

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