SICK.COM





PRODUCT OVERVIEW

OD200

Laser distance sensors

SICK Sensor Intelligence



DISPLACEMENT SENSORS

OD200

Compact optical displacement sensors with reliable measuring performance up to 400 mm

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.

OD200 AT A GLANCE

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

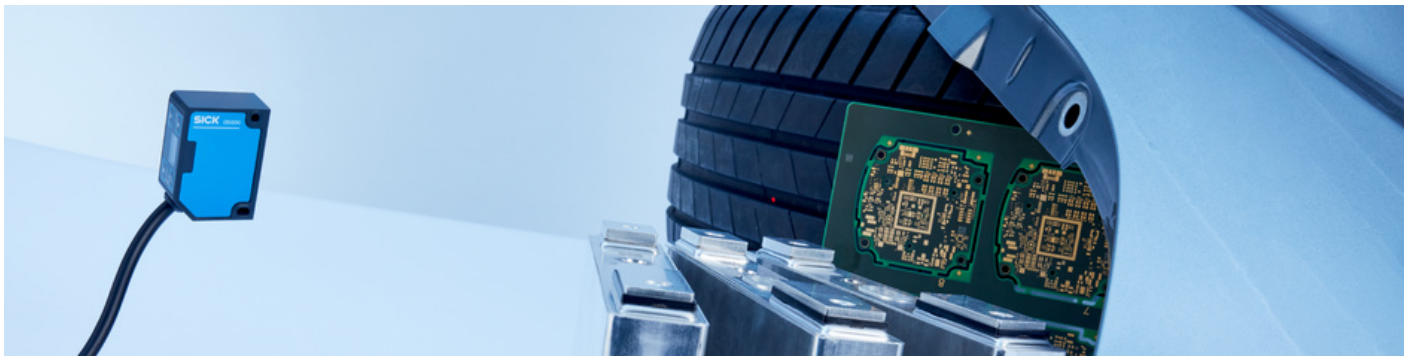
FEATURES

- Repeatability: 2 µm ... 60 µm
- Linearity: ± 10 µm ... 640 µm
- Measuring frequency: up to 3 kHz
- Intuitive configuration via OLED display, IO-Link and SOPAS ET
- Measuring ranges from 25 mm to 400 mm
- Laser class 1
- Analogue and digital output with IO-Link interface
- Robust miniature housing

TECHNICAL DATA OVERVIEW

Measuring range	25 mm ... 400 mm
Linearity	- 10 µm ... - 100 µm
Laser class	1
Communication interface	IO-Link
Connection type	Cable with plug M12, 5-pin
Housing material	Metal

ADVANTAGES

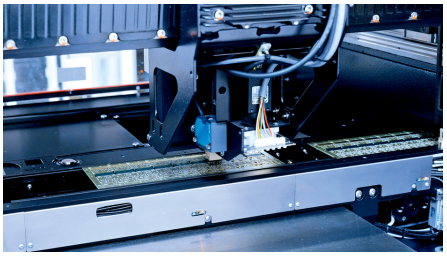


For the challenges of today and tomorrow

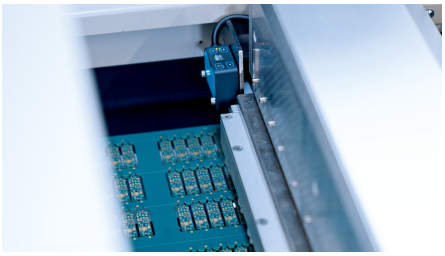
New materials and future technologies such as battery production or the semiconductor industry are increasing the requirements for error-free distance measurement. Complex surfaces can significantly increase the error rate. The solution: the OD200. The sensor keeps waste to a minimum with its surface-independent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

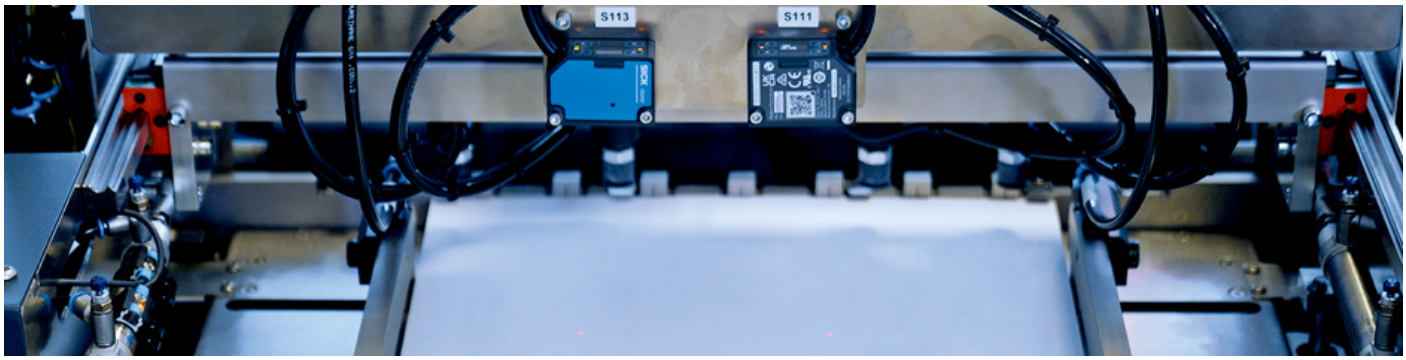


Pick and place
There is hardly any time for the correct position detection of miniature PCBAs and small battery cells in fast production processes. The OD200 delivers precise measured values almost in real time at a measuring frequency of up to 3 kHz.



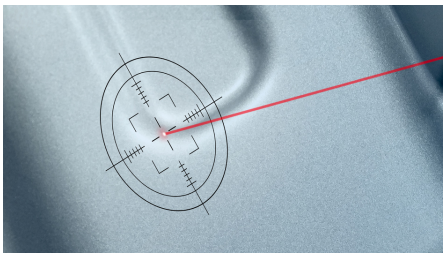
Distance and position
When installation space becomes a limiting factor, the OD200 comes into its own. The sensor combines measurement, evaluation and communication interface in its miniature housing.

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



Stable performance for more productivity

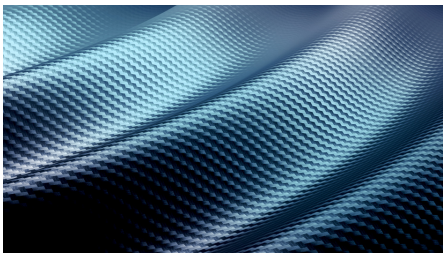
Reliable measurement data for demanding surfaces: The OD200 delivers consistently high measurement quality – even with highly reflective objects or complex structured surfaces. Automated applications continuously receive precise data. The result: high availability and increased throughput, while the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

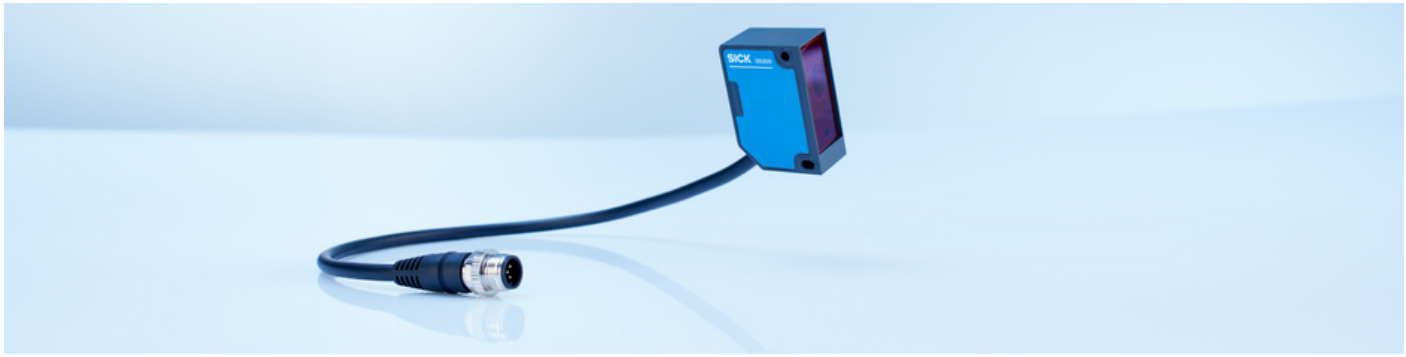


High scanning frequency for more throughput
With up to 3 kHz, object edges can be detected with particular precision, allowing machines to cycle faster.



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.

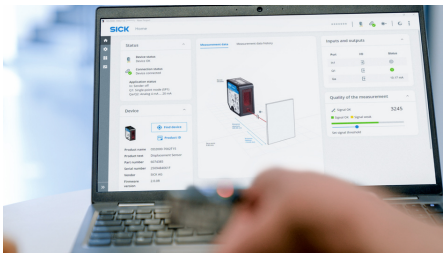


Quickly integrated. Easy to operate.

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.

Select the right product variant and accessories directly online. There you will also find example applications as well as downloads such as CAD dimensional models, operating instructions and software.
www.sick.com/OD200

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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnership with our customers is more than just a promise: Together, we optimize productivity, elevate quality, protect health and safety, and sustain the future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions.

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