SICK.COM





PRODUCT OVERVIEW

OL1

Laser distance sensors

SICK Sensor Intelligence



DISPLACEMENT SENSORS

OL1

Optical micrometer for reliable edge guiding

The OL1 optical micrometer stands out due to its miniature design and is small enough to fit in the tiniest machine spaces. Thanks to the LED alignment aid and a function for aligning the light band integrated into the AOD1 evaluation unit, installing and aligning the sender and receiver unit is child's play. In particular, the OL1 sensor shows its strengths with the high-precision edge guiding function, for instance with the repeatable guidance of electrode material in battery production or the double layer detection of thin wafers. Due to the high performance reserve, the OL1 determines the edge position of semi-transparent materials exactly or reliably moves thin textile threads or wires back on the right track.

OL1 AT A GLANCE

BENEFITS

- The rugged miniature housing makes it possible to use it in very small installation spaces
- Quick commissioning and easy machine integration via display configuration and LED-based alignment aid at the sensor heads
- Quality optimization due to thickness measurement with micrometer precision
- Reliable process control of web material thanks to exact edge position determination

FEATURES

- Miniature metal housing
- Integrated LED alignment aid
- High-resolution CMOS receiver with high repeatability
- Various interfaces available via AOD1 evaluation unit
- Measurement of edge position or diameter
- Individualized configuration settings and calculation functions via AOD1 evaluation unit

TECHNICAL DATA OVERVIEW

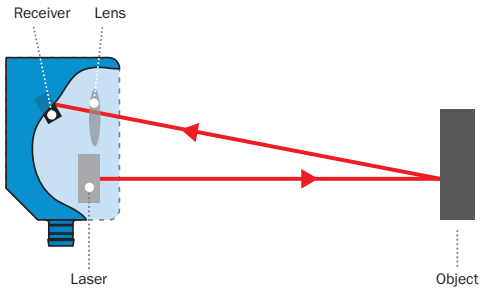
Communication interface	Serial
Sensing distance	10 mm
Measuring range	10 mm
Laser class	1
Typ. light spot size (distance)	3 mm x 14 mm
Connection type	Cable with M8 male connector, 4-pin
Housing material	Metal

ADVANTAGES

Precision meets quality

With expert-developed intelligent measurement technology which proves its worth in industrial applications time and time again, SICK offers the solution to any challenge which demands maximum measurement accuracy and quality. A pioneering spirit founded on our years of experience and our own innovations in optical sensor technology. We ensure efficient processes while fulfilling the demands of even complex measuring tasks – regardless of surface, diameter, thickness, or width, and regardless of whether an object is to be positioned or measured. This is how we ensure that your products are every bit as perfect as you want them to be. Moreover, SICK's measurement technology supports quality assurance processes and delivers cost-saving benefits. Have a look on <a href=https://www.sick.com/measurement-sensors target="_blank">www.sick.com/measurement-sensors

A point of light is projected onto the measuring object. The light reflected is captured by a light-sensitive receiver at a specific angle. Based on the angle between the send and receive direction, the position of the object is then triangulated (from the Latin "triangulum" = triangle).





Precise detection in the micrometer range

OL1 is the ideal optical micrometer for applications combining limited space with high performance requirements, thanks to its 10 mm-wide light band with high repeatability. Whether it is tiny objects, threads, or web material: The sensor with laser class 1 enables thickness measurements and position determination with micrometer precision to ensure reliable process control.



Reliable detection of objects from a size of 0.2 mm upward



High-precision material guidance thanks to repeatability in the micrometer range

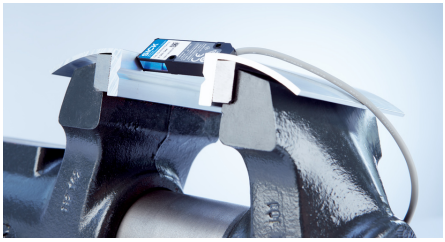


Flexible use thanks to a distance of up to 300 mm between sender and receiver



Versatile use, compact size

With a width of just 9.6 mm, the OL1 can be flexibly integrated into systems where space is limited. The light band is easy to align thanks to the LED alignment aid on the device. The sensor can also be configured externally via the AOD1 evaluation unit as a convenient alternative. This guarantees quick commissioning of the optical micrometer in a wide range of production environments.



Rugged miniature metal housing



The compact sensor design means it can be used in the tightest of installation spaces



Intuitive alignment thanks to display parameterization and LED alignment aid

⟶ Quick commissioning: Thanks to their convenient alignment, the sender and receiver can even be easily integrated into miniaturized machine units.

SICK LifeTime Services

SICK's services increase machine and plant productivity, enhance the safety of people all over the world, provide a solid foundation for a sustainable business operation, and protect investment goods. In addition to its usual consulting services, SICK provides direct on-site support during the conceptual design and commissioning phases as well as during operation.
The range of services not only covers aspects like maintenance and inspection, but also includes performance checks as well as upgrades and retrofits. Modular or customized service contracts extend the service life of plants and therefore increase their availability. If faults occur or limit values are exceeded, these are detected at all times by the corresponding sensors and systems.



Consulting and design
Application-specific advice on the product, its integration and the application itself.



Commissioning and maintenance
Application-optimized and sustainable – thanks to professional commissioning and maintenance by a trained SICK service technician.



Service contracts
Extended warranty, SICK Remote Service, 24-hour helpdesk, maintenance, availability guarantees and other modular components can be individually combined on request.

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.
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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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