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PRODUCT OVERVIEW

OD7000

Laser distance sensors

SICK Sensor Intelligence



DISPLACEMENT SENSORS

OD7000

Chromatic-confocal displacement sensors for micrometer-precise measurements

The OD7000 is a chromatic confocal distance sensor. It measures distances to objects very precisely and cost effectively – regardless of their surfaces and materials. With a resolution of under 25 nm, the high-performance sensor reliably detects whether surfaces are smooth, or whether objects are positioned precisely or have the desired material thickness. Since the sensor head and control unit are separate from one another, the compact OD7000 is easy to install even in tight measurement locations. Thanks to the intuitive user interface, the device can be configured quickly. Its Ethernet and RS-422 interfaces make system integration easy. The OD7000 is available in a range of variants. In one variant, the sensor can be triggered via an encoder signal.

OD7000 AT A GLANCE

BENEFITS

- The confocal technology enables precise and reliable distance and thickness measurements, regardless of surface and material
- Saves space thanks to the compact dimensions of the control unit and sensor heads
- The integrated encoder input saves time and costs by continuously triggering the measurement

FEATURES

- Scanning frequency: up to 10 kHz
- Scanning ranges: 0.6 mm, 1.1 mm, 4 mm, 10 mm
- Axial resolution: 25 nm, 45 nm, 180 nm, 400 nm
- Linearity: 198 nm, 400 nm, 1.4 µm, 4 µm
- RS-232, RS-422 and Ethernet interface
- Configuration of the controller via the OD7000 engineering tool GUI
- Input for incremental encoder available

TECHNICAL DATA OVERVIEW

Communication interface	Serial Ethernet
Sensing distance	74 mm 6.2 mm
Measuring range	74 mm 6.2 mm
Typ. light spot size (distance)	2 mm x 4 mm (150 mm) 3 mm x 6 mm (300 mm) 3 mm x 6 mm (600 mm) 6 mm x 12 mm (1000 mm)
Housing material	Metal

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/OD7000

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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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