



Profiler

Cost-effective profile measurement

DISPLACEMENT MEASUREMENT SENSORS

SICK
Sensor Intelligence.

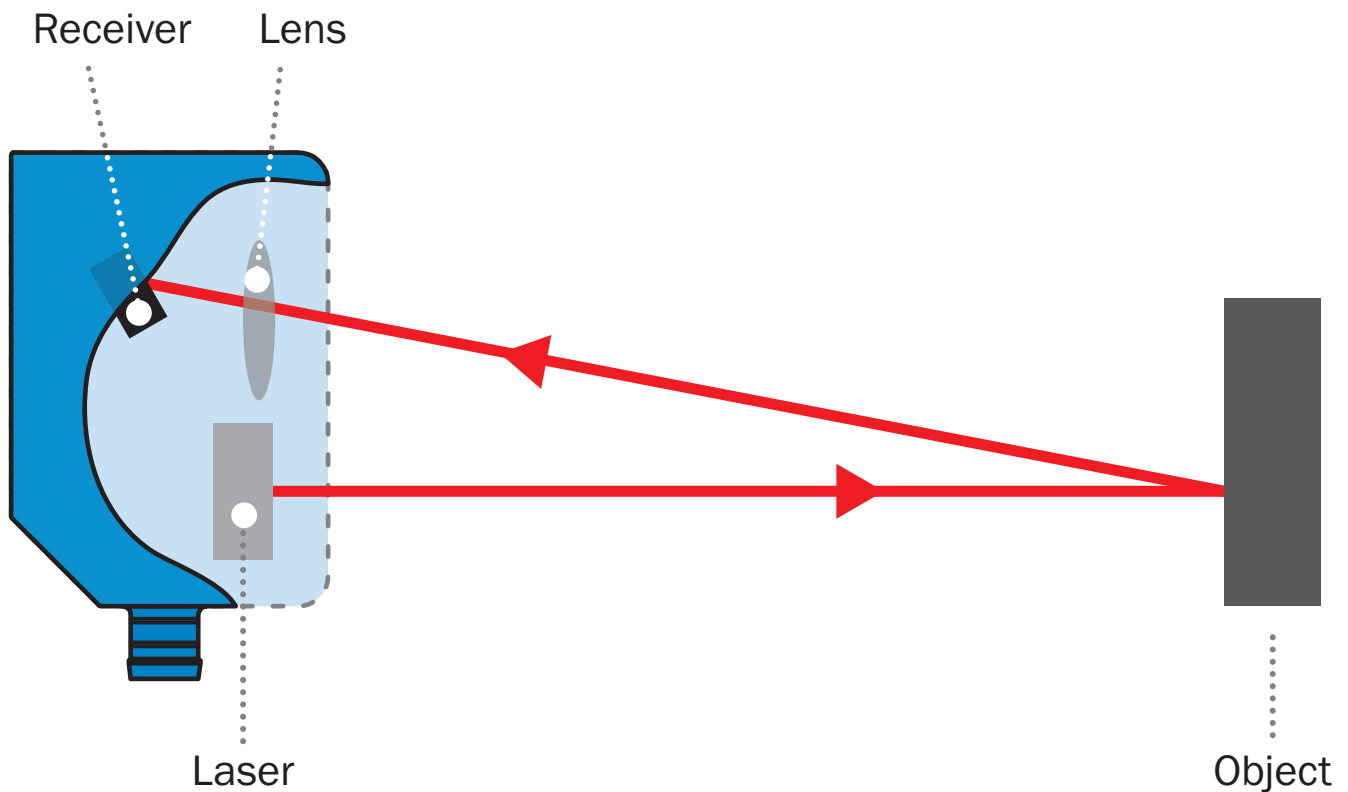
Advantages



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 www.sick.com/measurement-sensors

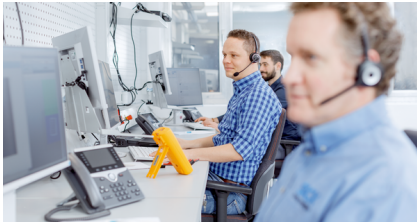
A point of light is projected onto the measuring object. The light reflected is captured by a light-sensitive receiver at a specific angle. Based on the angle between the send and receive direction, the position of the object is then triangulated (from the Latin “triangulum” = triangle).



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.



Technical data overview

Measuring range	75 mm ... 125 mm
Linearity	± 170 µm ... ± 270 µm ± 50 µm
Repeatability	25 µm, x-direction 2 µm, z-direction
Response time	≥ 5 ms
Digital output	3 x PNP 3 x NPN
Light source	Laser, red
Type of light	Visible red light
Serial	✓, RS-485
Analog output	Number 1 Type Current output
Ambient temperature, operation	-10 °C ... +40 °C, Operating temperature at V _S = 24 V

Product description

The Profiler 2 displacement measurement sensor performs highly accurate measurements on the x and z axes and can also measure the surface of more complex objects. Up to four areas can be analyzed at the same time with a single measurement. One of the 10 integrated measurement functions, e.g., height or width, can be selected for each area. The integrated evaluation unit of the Profiler 2 saves you time and money when it comes to installation – making the sensor one of the most cost-effective solutions for profile measurement. While the integrated CMOS receiver unit guarantees precise measuring, the supplied software makes commissioning simple and provides exceptional visualization of the measurement process. The integrated LC display offers real-time visualization.

At a glance

- Measure complex profiles with just one laser line
- Analyze up to four areas at the same time
- More than 10 integrated measurement functions, e.g., height, width, and inclination
- Sensor head and evaluation unit in one device
- Commissioning via software or integrated display with operating elements
- High-quality CMOS receiver unit

Your benefits

- Measuring a 2D profile with just one sensor saves on hardware and installation costs
- Cost-effective solution for 2D profile measurement
- Real-time visualization of the measurement results via the integrated LC display
- Intuitive and quick commissioning via the software or display reduces installation time
- Thanks to the stand-alone concept of the Profiler 2, there is no need for cabling or to mount an additional evaluation unit
- Reliable measuring regardless of color, material, or shape
- More than 10 integrated measurement functions allow profiles to be measured and analyzed quickly

Fields of application

- Measuring shapes and profiles
- Detecting multiple edges
- Monitoring gap sizes
- Measuring the width and thickness of components
- Measuring the coating thickness of printed circuit boards
- Measuring object angles
- Quality control in the automotive and electronics industries

Ordering information

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

- **Communication interface:** Serial
- **Housing material:** metal
- **Laser class:** 2
- **Measuring range:** 75 mm ... 125 mm
- **Type of analog output:** Current output
- **Connection type:** female connector, HRS, 12-pin (I/O, power supply)
- **Typ. light spot size (distance):** 0.3 mm x 32 mm

Digital output	Type	Part no.
3 x NPN	PRO2-N100B25A1	6052874
3 x PNP	PRO2-P100B25A1	6052873

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