



FROM MICRON TO MILE. IN ALL DIMENSIONS.

DISTANCE AND LiDAR SENSORS FROM SICK: RANGE IN ALL DIMENSIONS, PRECISE RESULTS IN ALL ENVIRONMENTS

SICK
Sensor Intelligence.

Distance sensors, detection and ranging solutions

Mobility, infrastructure, logistics or production

Automation is forging ahead in all industries with no sign of stopping. And right at the forefront are distance sensors and detection and ranging solutions from SICK. As intelligent sources of data, they deliver precise information for nearly any application. Over any distance, in all environments. Equipped with high-developed technologies and a wide range of interfaces. Discover a unique portfolio unparalleled throughout the world which unites diverse industry knowledge and extraordinary capacity for innovation in all dimensions. Comprehensive performance and boundless flexibility – combined for your success.



FROM MICRON TO MILE. IN ALL DIMENSIONS.

From the most minimal to the farthest distances – distance sensors and LiDAR sensors from SICK – the market and technology leader in these segments – cover the world in all dimensions.

For both indoor and outdoor applications involving different measuring ranges, SICK offers individual solutions based on ultrasound, light or radar for a wide variety of scanning ranges. The integration technology is highly flexible: whether analog or serial, via fieldbus, IO-Link or Ethernet, the choice is determined by the customer's preference and ambient conditions.



Electronics

Innovative sensor solutions save time and ensure a high quality standard in the electronics production process.

- Positioning check when placing devices
- Checking the height or thickness of components
- Double layer detection of printed circuit boards

Automated guided vehicle systems

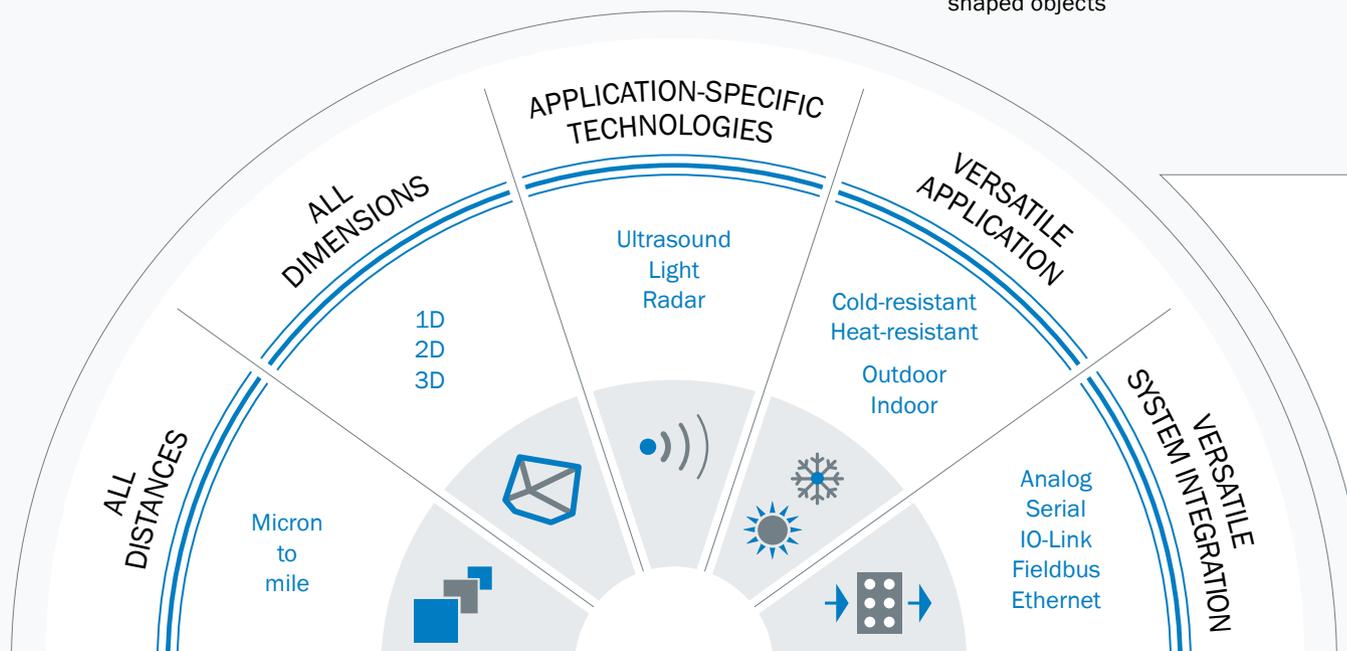
LiDAR and distance sensors enable efficient operation of automated guided vehicle systems.

- Collision avoidance via 2D LiDAR sensors on automated guided vehicles
- Map creation and localization for automated guided vehicle systems
- Storage bay availability

Storage and conveyor

Sensors ensure precise position determination, reliable empty bay detection and exact contour measurement in storage and conveyors.

- Position determination of storage and retrieval systems with long range distance sensor
- Empty bay detection with 2D LiDAR sensors or ultrasonic sensors
- Empty tote detection and level measurement
- Dynamic volume measurement, including of singulated, irregularly shaped objects





Traffic

With safety and free travel: sensors retain a synoptic view in road traffic applications.

- Three dimensional detection and classification of vehicles in multi-lane free-flow systems for toll collection
- Detection of trucks at risk of fire in tunnels
- Clearance measurement for heavy loads

Ports

Intelligent automation ensures high handling capacity, increased efficiency and disruption-free port operation.

- Collision avoidance for rail mounted and rubber tired gantry cranes as well as crane-to-crane collision avoidance
- Collision avoidance on the path of a ship-to-shore crane using LiDAR sensor and radar
- Container stack measurement

Additional industrial areas of application in which automated solutions control production and processes.

www.sick.com/industries-overview

EXCELLENT PERFORMANCE OVER ANY DISTANCE, IN ALL DIMENSIONS

For more details

3D LiDAR sensors scan with high point density.

Individual sensor solutions

SICK AppSpace combines software, programmable sensors and a dynamic developer community.

Effective for both indoor and outdoor applications

The versatile HDDM* distance measurement method reliably determines distances.

Detecting changes in real time

2D LiDAR sensors detect details in moving road traffic. They have the clear advantage when it comes to detection and classification of vehicles.

DIVERSE PORTFOLIO – ALWAYS THE BEST SOLUTION



Distance sensors

One of the most important tasks in industrial production is the measurement of distances. However the applications in this area are so diverse that no sensor can be used universally for all tasks. Accordingly, SICK provides a wide range of products suitable for a great variety of measuring tasks. Distance measurement operations are based on the principles of optoelectronics and ultrasonic sensors.



Detection and ranging solutions

LiDAR (Light Detection and Ranging) laser measurement technology offers solutions for a wide range of applications. Contour data in two and more dimensions that can be processed internally and externally is easily detected with LiDAR. The technology is perfectly suited for indoor as well as outdoor applications, e.g., for collision protection in ports, classification in traffic, detection in building automation or position determination in navigation.

Displacement measurement sensors



Mid range distance sensors



Long range distance sensors



Linear measurement sensors



Ultrasonic sensors



2D LiDAR sensors



3D LiDAR sensors



Radar sensors



More information about our product portfolio is available at: www.sick.com/micron-to-mile