

LaseGCP-2D

GANTRY COLLISION PREVENTION 2D

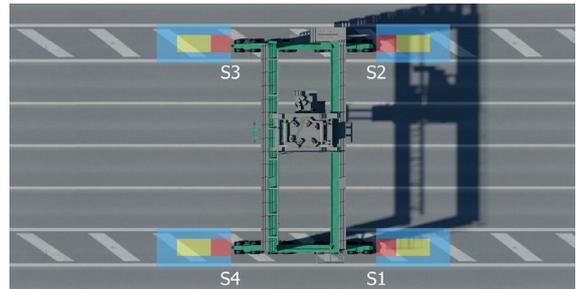
The LaseGCP-2D measurement system is a driver assistance system that helps crane operators avoid collisions and thus increase crane availability. The system can be used with two or four 2D laser scanners mounted on the upright gantries close to the drives. Depending on the number and mounting location, one direction or two directions of travel can be monitored. The scan planes are generated horizontally across the floor in the respective direction of travel.

THE MEASUREMENT SYSTEM

The laser measurement system consists of two or four 2D laser scanners of the LASE 2000D Series, which are mounted on the upright chassis beams at the height of approx. 1.0 - 1.5 m. The scanning planes are projected parallel to the ground. The measurement data from the laser scanner is sent to the LASE application software, which evaluates the data and detects any hazardous situations that arise in good time. Dynamic monitoring fields are generated in the control system, which changes or adapt their extension analogously to the crane speed.

This means that the scan fields have a small extension at low speeds and accelerates simultaneously with the crane speed. The fields cover the width of the gantry area (including stairs that may be on the side of the crane). From this, the system derives three detection areas, the largest/outermost of which is used to create candidates, making it the so-called „candidate field“. These candidates are objects that have a certain size and lifetime and should be protected as soon as they occur within the warning or alarm field.

This prevents false alarms caused by randomly occurring objects, such as snowfall or birds. If an object is within the smaller „warning field“, the system reacts and sends a warning to the crane operator, who starts to reduce the speed of the gantry crane. In the event the nearest field („alarm field“) is violated, an emergency stop is automatically triggered.



The sensors divide the position of the obstacle into the three danger zones blue, yellow and red.



With our „Surveillance Manager“, the crane operator has everything in view.

THE FEATURES

- ✓ Modular system design - two or four sensors can be used
- ✓ Trusted product with high acceptance by the crane operator
- ✓ Easy installation for new cranes and also retrofitable

THE BENEFITS

- ✓ Avoidance of hazardous situations and thus increase in the safety level for crane operation
- ✓ Cost savings due to collision-free operation and avoidance of repair costs
- ✓ Increased system availability due to reduced crane downtime
- ✓ High reliability against environmental influences - no false alarms
- ✓ Crane operators can concentrate on other operating issues

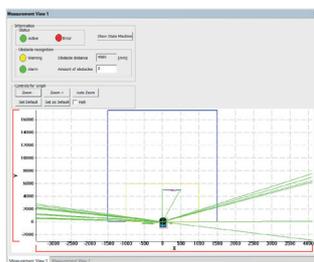
THE FUNCTION PRINCIPLE



The sensors constantly observe all movement points and watch out for disturbing obstacles.



The location of the object triggers either an observation (blue), a slowing down of the crane (yellow) or a stop (red).



The software for the system is customised, easy to use and clearly laid out.

WATCH THE PRODUCT VIDEO



SCAN ME



Scan the QR code with your mobile phone. Discover the product video and more innovative solutions from LASE!

GLOBAL PLAYER FOR LASER MEASUREMENT SYSTEMS

For more than 30 years, LASE Industrielle Lasertechnik GmbH has been the global contact for high-precision and robust laser measurement technology for the industrial sectors port, bulk material handling, steel and logistics. With our 1D, 2D, 3D and multi-layer sensors as well as in-house developed applications, our systems stand for more safety and efficiency. Our goal is to drive the automation of industry with easily retrofittable solutions. With 30 offices worldwide through subsidiaries and partners, we are always at your side.