product data sheet

LaseASTO AREA SURVEILLANCE TRUCK OPERATION

The DIN ISO 13849 certified measuring system LaseASTO system automatically detects and classifies the truck and driver in a "Region of Interest - ROI", i.e. a predefined area of interest. The system can detect, locate and continuously track the position of people in work areas, for example, when a container is being loaded or unloaded. LaseASTO divides the work area into two monitoring areas: a danger and a safety zone. In the danger zone, the loading of containers takes place. If a person is in this area, an emergency shutdown of the crane system is carried out. If, on the other hand, the person is in the safety zone, container handling, for example, can be carried out safely.

THE APPLICATION

At least two multi-layer laser scanners are used in this system, which are mounted, for example, on the container crane above the transfer area from the crane to the transfer area. These scan the transfer or "monitoring area". The measured 3D point clouds, i.e. scan data from both sensors and produce a scenario representation in the monitoring area under the crane. Segmentation of the obtained 3D point cloud provides the individual objects' length, width and height. A truck or driver classification is based on size information and other attributes, such as the centre point and the number of points that make up the detected object. Once the driver or other objects, for example, has been detected, they will be tracked by LaseASTO until they reach a safety zone within the monitoring area, return to the driver's cab, or leave the area of operation. These evaluations are continuously transmitted to the crane driver, who uses this information to determine when loading or unloading a container is safe. Alarms are not triggered if boxes or the like have already been detected in the work area. Only persons trigger an alarm here if they are not in the safe zone or if others enter the working area from outside.



THE FEATURES

- Monitoring of hazardous and safety areas
- Latest multilayer laser scanner technology
- Suitable for automated RMG, RTG and STS cranes
- ✓ Continuous personnel & machine tracking
- Alarm signal to assist crane operator or remote crane operator
- Direct connectable to crane automation
- It can be integrated into other LASE multilayer scanning applications as well



LaseASTO is a retrofit or OEM solution that detects and prevents life hazards in fully automated container handling.



The scanners are mounted on the container crane above the transfer area.

THE BENEFITS

- Emergency stop when danger is detected
- ✓ Safe operation between machines & people
- Uninterrupted operation
- ✓ Safe operation
- ✓ Reliable system solution
- ✓ Retrofit or OEM product
- ✓ LASE software
- ✓ DIN ISO 13849 certified



FURTHER INFORMATION: LaseASTO

THE FUNCTION PRINCIPLE



The sensors scan a predefined area above the transfer area and continuously observe people.



If the target person ist outside the safety zone, the yard crane stops.



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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 port sector. With our 1D, 2D, 3D and multilayer sensors as well with our high sophisticated application software, our systems stand for more accurate, safe and efficient container handling. Our goal is to drive the automation of the port industry forward. With 30 offices worldwide through subsidiaries and business partners, we are always at your side.





The target person is in the safety zone; the container can be lifted safely.



The new LASE multilayer scanner.

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