SAFETY LASER SCANNER

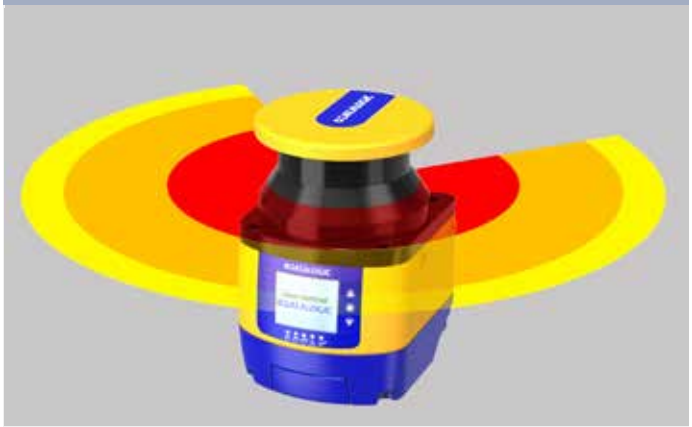
Laser Sentinel Enhanced

The complete application-oriented solution for safe monitoring in Factory Automation and Intralogistics

DATALOGIC
EMPOWER YOUR VISION

The most complete solution

Up-to-date detection performances



LASER SENTINEL can manage up to four simultaneous zones that can be configured as warning or safe areas.
Safe areas can reach 5.5 m over an angle of 275°, warning areas can reach 40 m

Reliability in Industrial Environment

Innovative optical features and signal filtering make LASER SENTINEL extremely reliable also in industrial environments whit dust, dirt or light interferences.

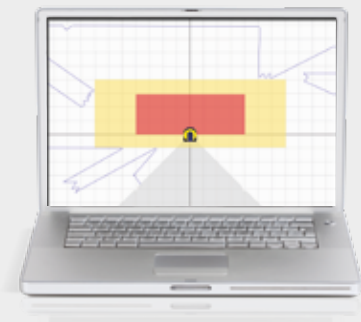
Easy maintenance with local configuration backup

All the system configuration is backed up in a removable memory. In case of substitution of the entire scanner, the new one can be put in service without need of the configuration software.

Dynamic Partial Muting

LASER SENTINEL can be configured to mute an area of variable size and position, depending on the working phase of the machine. Muting activation is done by muting sensors activated by the approaching of the load that has to enter or exit the dangerous area.
Override function is also available in order to restart the movement after an unintended stop.

Graphic User Interface with AutoTeaching functionality



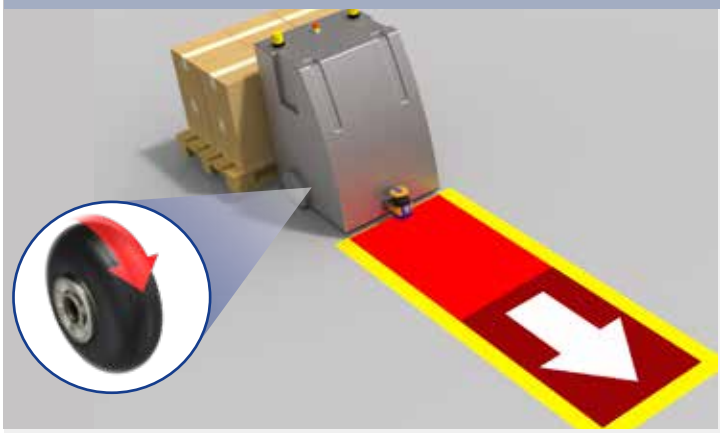
Configuration of LASER SENTINEL is easy: the Graphic User Interface in six languages guide you through the set up of all parameters and the autoteaching function helps in designing the zones.

for SAFE AREA MONITORING

Safe Automated Guided Vehicles collision avoidance

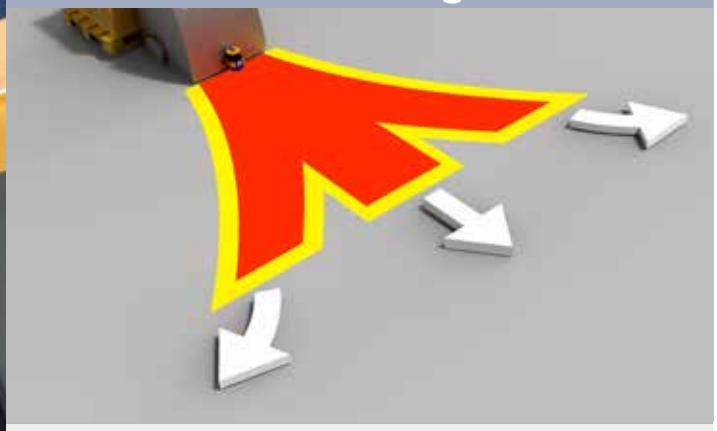
Warning and Safe areas can be used to warn operators, slow down the vehicle or stop it only when needed. Up to 70 different area sets can be configured and activated depending on position, speed and movement of vehicle.

Safe speed monitoring



Incremental encoders inputs can be directly read by LASER SENTINEL in order to select the appropriate slow-down and stopping areas, depending on the speed of the vehicle

Advanced measurement data for direct navigation

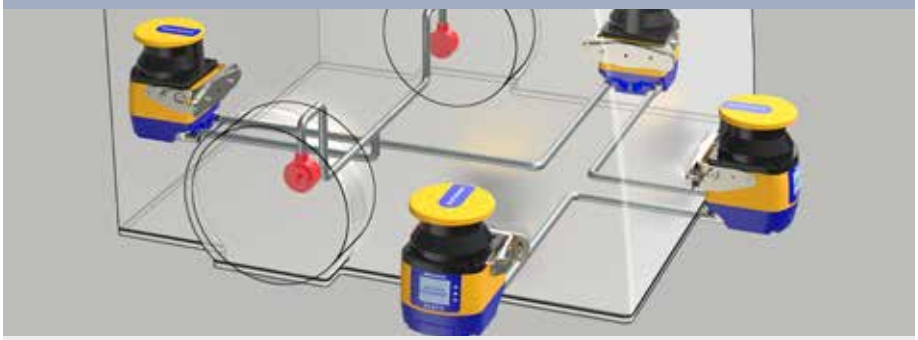


LASER SENTINEL has a flexible transmission protocol on Ethernet, that can be used to read measurement data selecting the desired resolution and opening angle. The data include active zone, I/O status, measured speed, intensity of the beams and diagnostic.

Four scanners, one system, one configuration

LASER SENTINEL is the only system that thanks to its master/slave architecture can manage combined applications where multiple zones stop different parts of the machine, without any need of external controller.

Easy configuration without need of external units



Up to 4 LASER SENTINEL can be easily connected to each other through Ethernet-based safe communication bus. Only one of them, the Master, receives power, has inputs and outputs onboard and keeps the memory of the configuration of the entire system. The other scanners, the Slaves, are connected to the Master with a single cable that also give them power.

Highlights and technical data

Highlights

- All necessary safety functions for all applications in a compact size
- Easy programming of the system with intuitive Graphic User Interface laser
- Up to 4 scanners can work together without any need of external controller*
- Speed monitoring and 70 switch zones for movable applications
- More than 72 square meters are monitored, thanks to 5.5 m radius over 275°
- The only safety laser scanner on the market with partial dynamic muting
- Advanced measurement data protocol, for AGV direct navigation

Technical data

- Type (EN61496-1): 3
- PL (EN ISO 13849-1): d
- SIL (IEC 61508): 2
- Resolution: 30/40/50/70/150 mm selectable*
- Maximum distance: up to 5.5 m (safe) for 70 mm resolution
- Opening angle: 275°
- Minimum response time: 62 ms
- Power supply (Vdd): 24 Vdc ± 20%
- Programming, monitoring and measurement data: Ethernet
- Dimensions (w,d,h): 102 , 112.5 , 152 mm
- Operating temperature: -10°C ...+50 °C
- Humidity: 15 ... 95 % (no condensation)
- Mechanical protection: IP65

Dimensions