

> SAFETY AREA SCANNER



# Laser Sentinel

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

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# THE MOST COMPLETE SOLUTION FOR SAFE AREA MONITORING

## UP-TO-DATE DETECTION PERFORMANCES



LASER SENTINEL can manage up to three areas 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



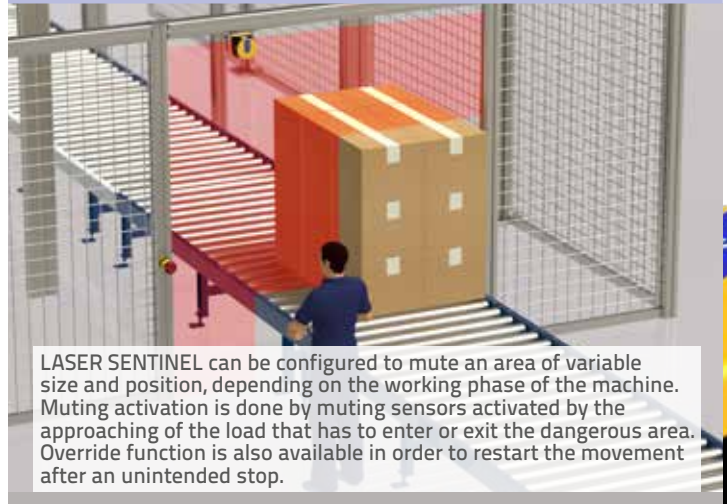
Innovative optical features and signal filtering make LASER SENTINEL extremely reliable also in the harshest industrial environments whit dust, dirt or light interferences.

## EASY MAINTENANCE WITH LOCAL CONFIGURATION BACKUP\*



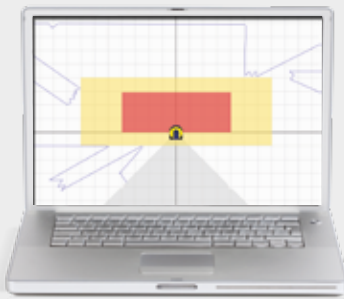
All the system configuration is backed up in a removable memory. In case of substitution of the entire scanner, the new one can be put in service without need of the configuration software.

## DYNAMIC MUTING AND OVERRIDE FOR VERTICAL APPLICATIONS\*



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 APPLICATION SPECIFIC TEMPLATES AND AUTOTEACHING FUNCTIONALITY



Configuration of LASER SENTINEL system is easy thanks to its templates tailored to Horizontal Static Applications, Vertical Static Applications, or Dynamic Applications. The Measurement data can be used to quickly design areas and reference points through auto-teaching

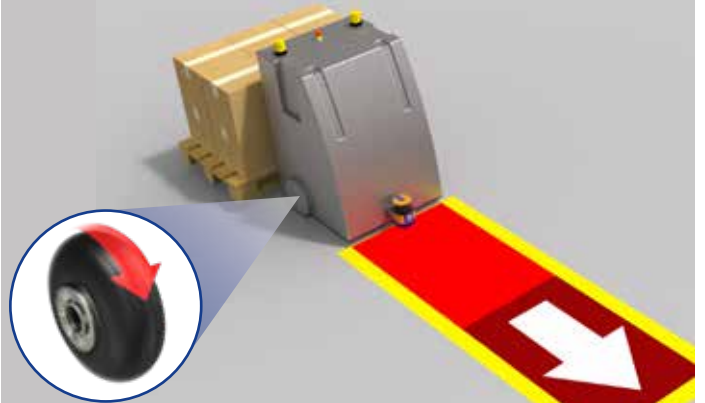
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## SAFE AUTOMATED GUIDED VEHICLES COLLISION AVOIDANCE



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

## MEASUREMENT DATA FOR NAVIGATION AND MONITORING\*



In addition to its safe functionality, LASER SENTINEL measures the distance of the objects around it, and the data sent over Ethernet port can be used by the Vehicle control system for direct navigation, or by the Machine in order to check the correctness of the production process

## 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 areas 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. The synchronization of the four scanners is an integrated function: there is no need of external control units.

\* features available in 2018

# HIGHLIGHTS, TECHNICAL DATA, DIMENSIONS

## HIGHLIGHTS

- All necessary functions in a compact size
- Easy programming of the system with intuitive Graphic User Interface
- Up to 4 scanners can work together without any need of external controller\*
- Speed monitoring and 70 switch areas for movable applications\*
- More than 72 square meters are monitored, thanks to 5.5 m radius over 275°
- Dynamic Muting available and selectable detection capability for vertical applications\*
- Measurement data available over Ethernet to ease the navigation of AGVs\*

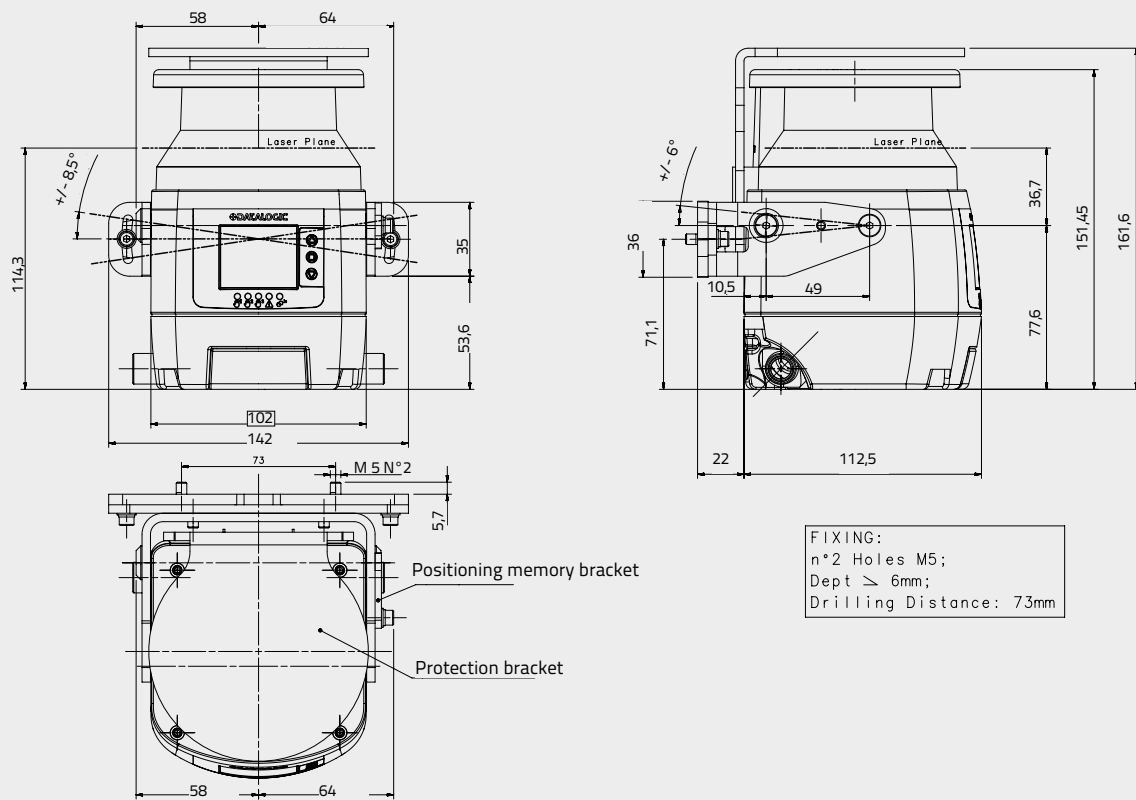
\* features available in 2018

## TECHNICAL DATA

- Type (EN61496-1): 3
- PL (EN ISO 13849-1): d
- SIL (IEC 61508): 2
- Resolution: 70 mm; 30/40/50/150 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  $\pm$  20%
- Programming, monitoring and measurement data: Ethernet
- Dimensions (w,d,h): 102, 112.5, 152 mm
- Operating temperature: 0°C ...+50 °C
- Humidity: 15 ... 95 % (no condensation)
- Mechanical protection: IP65

\* features available in 2018

## DIMENSIONS



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