## LZR<sup>®</sup>-WIDESCAN

OPENING, AREA SURVEILLANCE AND SAFETY SENSOR FOR INDUSTRIAL DOORS

Commercial sheet



### 3D LASER FOR INDUSTRIAL ENVIRONMENTS

#### DESCRIPTION

The LZR®-WIDESCAN sensor uses laser technology, based on analysis of time of flight. By generating 7 tilted laser curtains, the sensor creates a volumetric area in front of the door. One device offering 3 functions: opening the door, area surveillance and safety. More than just a sensor, it improves the comfort and safety of the users and increases the protection of the door.



#### VOLUMETRIC COVERAGE

A matrix of 64 x 64 pixels in front of the door enables accurate distance measurement and offers advantages, such as calculation of object dimensions and trajectory.



#### **DOOR PROTECTION**

The LZR<sup>®</sup>-WIDESCAN becomes your doorkeeper. It detects approaching or parked vehicles accurately in order to prevent any contact with the door.



#### **ENERGY SAVINGS**

Thanks to the reliability of its presence detection, the sensor allows to reduce the time-lag and offers earlier closing of the door. The analysis of trajectory, height and type of object enables filtering out parallel traffic and ignoring pedestrians if desired.



#### INDEPENDENT OF FLOOR AND ENVIRONMENT

Laser technology offers a high level of independence when confronted with weather conditions such as rain, snow, fog, etc.









Rejects parallel traffic



Easy and free shaping of detection field



Example of detection field : H = 5 m D = 6 m W = 6 m

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#### PERFORMANCE

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- Independent of the attributes of the object (material, colour, reflectivity)
- Analysis of the trajectory of the objects
- Rejection of parallel traffic and pedestrian filter
- Immunity against weather conditions
- 3D-detection fields that can be configured
- Infinite presence time

#### DESIGNED FOR INDUSTRIAL ENVIRONMENTS

- Reliable detection in critical environments
- Ideal solution to replace induction loops and to increase safety on existing doors

#### INSTALLATION

IP65

- Two visible spots on the floor align the first curtain with the centre of the door
- Intuitive configuration provided by the LCD screen and/or the BEA remote control
- Detection fields can be adapted to every application and environment
- Teach-in of various detection areas (opening, presence, safety) via remote control
- Sealed standard industrial connector
- Intelligent communication with the door controller is possible

#### TECHNICAL SPECIFICATIONS

Technology	LASER scanner, time-of-flight measurement (7 laser curtains)
Detection mode	Motion and presence
Max. detection field	Width: 1.2 x mounting height; Depth: 1.2 x mounting height (adjustable and depending on user settings)
Thickness of first curtain	2 cm / m (mounting height)
Typ. mounting height	2 m to 6 m
Min. reflectivity factor	> 2 % (of floor and target) (measured at max. 6 m in safety field)
Typ. min. object size	15 cm @ 6 m (in proportion to object distance)
Testbody	700 mm × 300 mm × 200 mm
Emission characteristics	IR LASER: Wavelength 905 nm; max. output pulse power 75 W; Class 1 Visible LASER: Wavelength 650 nm; max. output CW power 3 mW; Class 3R
Supply voltage	12 V - 24 V AC +/-10% ; 12 V - 30 V DC +/-10% @ sensor terminal
Power consumption	< 2.5 W (heating: off); < 15 W (heating: eco or demist)
Response time	Typ. 100 ms; max. 500 ms
Output	2 solid-state relays (galvanic isolation - polarity free) 42 V AC (max. switching voltage) - 100 mA (max. switching current) - in switching mode: NO/NC - in frequency mode: pulsed signal (f= 100 Hz +/- 10%) 1 electro-mechanic relay (galvanic isolation - polarity free) 42 V AC (max. switching voltage) - 500 mA (max. switching current)
LED-signals	2 tri-coloured LED: Output status/ remote control response / error signals
Dimensions	200 mm (H) x 150 mm (W) x 100 mm (D) (approx.)
Material / Colour	PC/ASA - Black
Rotation angles on bracket	45° to the right, 15° to the left (lockable)
Tilt angles on bracket	-10° to +5°
Protection degree	IP65
Temperature range	-30 °C to +60 °C
Vibrations	< 2 G
Norm conformity	EN 12978; EN ISO 13849-1 Pl "d"/ CAT2; EN 60529; IEC 60825-1; EN 60950-1; EN 61000-6-2; EN 61000-6-3; IEC 61496-1; EN 61496-3 ESPE Type 2; EN 62061 SIL 2

Specifications are subject to change without prior notice.

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