LZR®-VISIOSCAN RD

Measurement device for AGV/AMR

APPLICATIONS
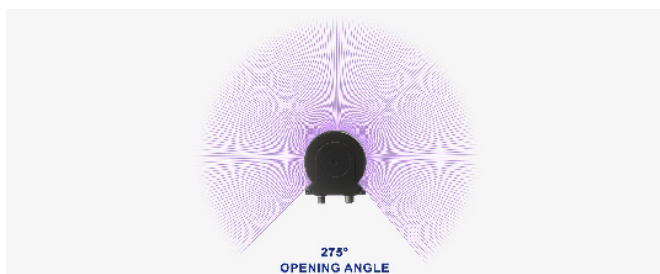
TECHNOLOGY

Laser

DESCRIPTION

The **LZR®-VISIOSCAN RD** is a laser scanner that detects on a single curtain over an angle of 275°. The sensor provides accurate measurement data at a high frequency rate through Ethernet communication. This enables further processing to achieve a variety of applications such as navigation and obstacle avoidance for AGV/AMRs, etc.

VIDEO

Discover the product video on our youtube channel **BEA Sensors Europe**

https://bit.ly/3tWX-

275°
OPENING ANGLE

Opening angle

The wide angular coverage of 275° provides a large detection field for AGV/AMRs to detect any object or people in a complex environment.
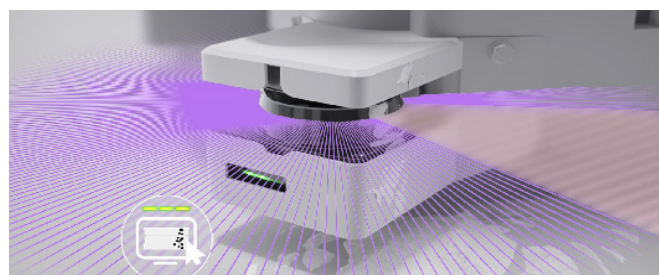
Angular resolution

LZR®-VISIOSCAN RD generates a high-resolution detection field with 110.080 reliable distance measurements per second, up to 0,1°angular resolution, ideal for SLAM navigation and obstacle avoidance.

-30°   +60°

Robust build, Maximising performance

The sensor's compact size (74mm height) fits to any type of AGV or AMR. The vibration and shock resistance, reaching class 5M2, and IP67 ingress protection enclosure ensure stable performance even in harsh environments.
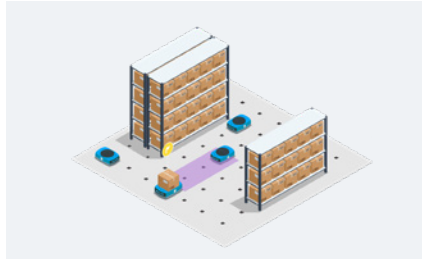
Intelligent window monitoring system

The innovative and intelligent window monitoring system can instantly identify the presence of any contaminant on the optical window. You can set contamination thresholds, and the sensor will receive notifications and warnings for preventive maintenance.
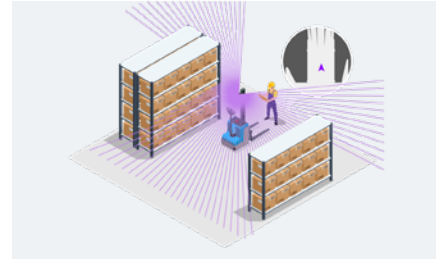
APPLICATIONS

Deliver precise distance measurement data to the AMR's controller at a high frequency, allowing it to **monitor its environment** and understand its exact location while **autonomously moving** along its path.

Deliver precise distance measurement data to the AGV's controller at a high frequency, allowing it to accurately **identify obstacles** within its trajectory and **react flexibly** by adapting its path.

Deliver precise and reliable distance data, **facilitating top-notch mapping** and accurate localization for automatic forklifts.
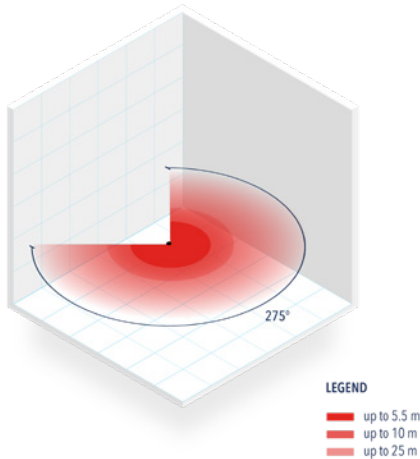
VISIOSCAN SET : SOFTWARE

Visioscan Set is a desktop software that lets you configure the sensor and visualize in real-time the detection field. Parameters can be configured easily thanks to its user-friendly interface. The software offers multiple fonctions, notifications for preventive maintenance, sharing configuration for easy commissioning.

DESKTOP APP

Visioscan Set can be downloaded from BEA's website.

https://eu.beasensors.com/fr/bea-tools/ (MS Windows)

TECHNICAL SPECIFICATIONS

LEGEND
- up to 5.5 m
- up to 10 m
- up to 25 m

Technology	LASER scanner, time-of-flight measurement
Optical characteristics	IR LASER: wavelenght 905 nm; MAX. output pulse power 28 W; Class 1 (IEC 60825-1)
Scanning angle	275°
Scanning frequency	80 Hz / 40 Hz (adjustable)
Angular resolution	0.2° @ 80 Hz, 0.1° @ 40 Hz
Scanning range	0.08 – 25 m; 7 m @ 1.8% reflectivity; 15 m @ 10% reflectivity
Flatness of scanning plane	± 0.2°
Supply voltage	12 – 24 V DC, - 10% / + 30%
Mechanical specifications	
Degree of protection	IP67 (only with the USB port cover in place, IEC 60529)
Dimensions	73.8 mm (H) x 80.2 mm (W) x 85.5 mm (D) (not including connectors). (All dimensions to be held to ± 0.3 mm)
Weight	Approx. 560g
Housing material	Zinc / Plastic
Optical window material	Plastic / PC
Connection type	1 x Power/output, 5-pin, M12 male connector, A-coded
	1 x Ethernet, 4-pin, M12 female connector, D-coded
	1 x USB, Type-C, socket
Ambient conditions	
Operating temperature	- 30°C to + 60°C
Storage temperature	- 40°C to + 70°C
Relative humidity	< 95%, non-condensing
Ambient light immunity	100 000 lux (ambient light); 3 000 lux (IEC 61496-3)
Conformity	This product conforms to all applicable European Union legislation. Please refer to the Declaration of Conformity for further information.

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