

LiDAR SENSOR

Model : LI 123



LiDAR (Light Detection and Ranging) technology has taken its start since the 60 's years past century. It operates on Laser time-of-flight (TOF) principle combined with the high-speed laser (distance) data acquisition and high- precision fusion algorithm. It can perform high-precision and high-resolution ranging movements up to 5000 times per second.

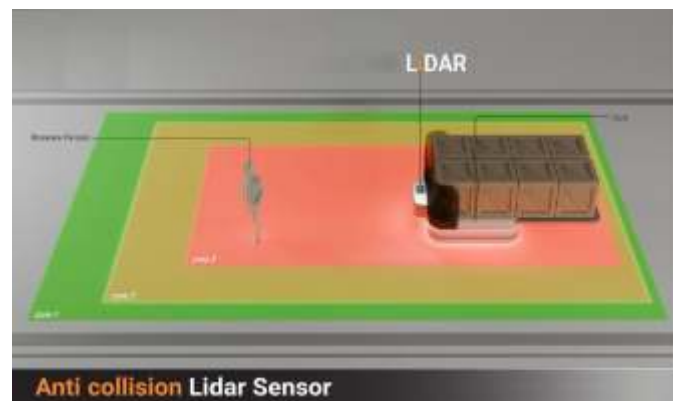
Our product (Sensor+Controller) facilitates 4 Zones with 3 outputs dedicated to each zone denoted with different colors for Easy understanding and configuration. For Non-Safety application Heart Beat output confirms health check of sensor.

This is simple and easy teaching mode in which sensor automatically adapts / adjusts with surrounding object and its positions (distances). Later during operation any intrusion by human, animal, or object in the set zone triggers digital outputs (Industry specific feature for Jewelry shops and Museums).

Product Application Scenarios

The system can be used in the following application scenarios:

- 1) Service robots or industrial robots working for long hours
- 2) General robot navigation and localisation
- 3) ASRS System for Presence Absence Detection and Anti-collision.
- 4) Crane Anti-collision system
- 5) Port Truck Safety and Human Safety system
- 6) Machine safety for Automotive, Tire & Machine Manufacturers.
- 7) Intrusion Detection using virtual Wall.



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Specifications for LIDAR Controller

S No.	Parameter	Specification
1	Operating Voltage	12-30 VDC
2	Current	Operating Current – 110mA Peak Current – 180mA
3	Detection zones	4 Zones with 3 Digital outputs
4	Digital Inputs for Zone selection	2 Inputs , 24VDC, PNP type
5	Digital outputs	4 Outputs 3 for (Alert, Warning, Trip) and 1 for Fault. 24VDC, 1A, PNP Type with short circuit protected.
6	Safety output (for Optional Model)	2 channel OSSD
7	Wi-Fi communication	2.4GHz wireless for PC interface
8	User interface	A java based Graphical user interface for configuration (Free)
9	Indication (on Controller)	LED indications for Wi-fi, Alert, Warn, Trip, Heartbeat, Input1, Input 2 and Fault.
10	Connection	Screw type plug in connector
11	Housing and Mounting	Aluminum box with 2 side clamp (Black)
12	Dimensions HWD	80mm x 53mm x 33mm (with mounting clamp H=114mm), Mounting hole PCD=104mm
Sensor Head General Specifications		
1	Power Supply	5VDC (Through LiDAR controller)
2	Ranging Distance	0.06~12 Meter (on White objects) 0.06~6 Meters (on Black objects)
3	Ranging Accuracy	±30 mm
4	Angular Resolution	0.72° @ Typical
5	Scanning frequency	8-12Hz, 10 Hz @ typical
6	Ambient Light	Limit 40000 lux
7	Working wavelength (light source)	895-915 nm (infrared)
8	Laser Safety class	IEC-60825, Class-I
9	Working temp range	-10 to 40°C
10	Connection	Flying leads (4wire) with 5 pin plugin screw type connector
11	Dimensions HWD	41.3mm x 55.6mm x 55.6mm (Mounting hole PCD beneath W=44 x D=44mm)



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