

2D 270° Safe LR-1BS2 Mini LiDAR Sensor



Robotics



Security



Industrial



Intelligent
logistics

Introduction

- ▶ Based on our proven 2D LiDAR development platform, LR-1BS2 is developed to meet the requirements on cost and size in the industrial and commercial field. It satisfies the need of most mobile robots and automatic guided vehicles (AGV) in terms of safe obstacle avoidance. In particular, it's the best choice for usage scenarios that have specific requirements on the installation space.
- ▶ LR-1BS2 is suitable for application needs in different industries, such as robotics, security and surveillance, industrial automation and smart logistics.

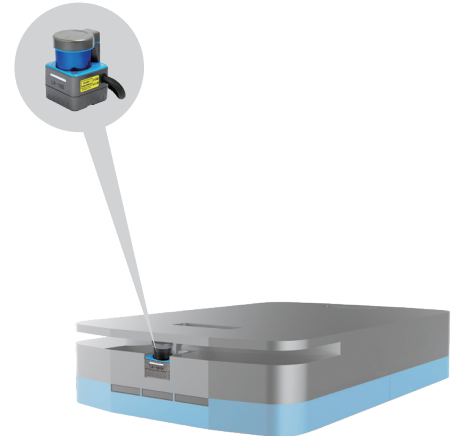
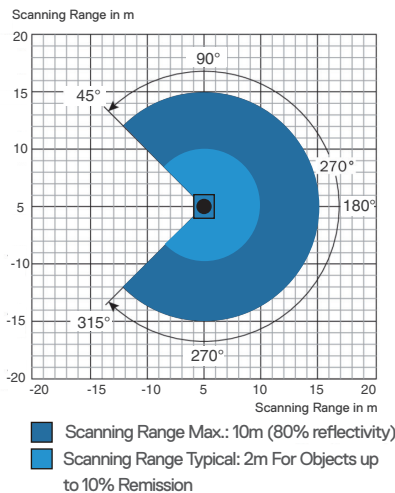


CE FC FDA

Features

- ▶ Designed according to industry standards, tested and certified for multiple reliability
- ▶ Compact structure size, height is only 85mm
- ▶ 270° scanning angle, up to 10m effective detection distance (80% reflectivity white board)
- ▶ Protection distance: 2m@10% target reflectivity
- ▶ Security settings and communication via integrated Ethernet communication interface

Scanning Range



Electrical Definition



RJ45 Ethernet cable

L1:12x core cable

NO.	Wiring color	Definition
I	Orange	Input 0
F	Brown	Output 0
E	Yellow	Output 1
D	Green	Output 2
C	Violet	Output 3
H	Gray	GND
M	Navy blue	Input 3
L	Wathet	Input 2
J	White	Input 1
B	Black	GND
G	Pink	VCC
A	Red	VCC

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Specification Table

Item	Unit	LR-1B2 2D 270°(safe)
Laser Wavelength	nm	905
Laser class		I (IEC 60825-1:2014)
Channels		1
Scanning angle	°	270
Scanning Frequency	Hz	10~25
Angular resolution	°	0.225
Measurement range	m	0.2~2m@10% bw 0.2~10m@80% wb
Response time	ms	130ms@10Hz 100ms@15Hz(Max)
Distance Resolution	mm	1
Accuracy ⁽¹⁾	mm	Repeate accuracy : ±20mm
Number of Bank fields		16 bank
Setting level		3
Ethernet Connection		100Mbps Ethernet
Switching inputs	ea	4
Switching outputs	ea	4
Optical Indicators	types	RGB, 2bank
Dimensions	mm	60×60×85
Operating voltage	VDC	10~32
Power consumption	W	5
Weight	g	<320
Degree of protection		IP66
Operating temperature	°C	-10~+50
Storage temperature	°C	-30~+70
Ambient light limit	LUX	<120,000
Air humidity	RH	<95%
Mounting		Side Outlet Bottom Side or Back Side
EMC		IEC 61000-6-2:2016-08 / IEC 61000-6-3:2006-07
Vibration resistance		IEC 60068-2-6:2007
Shock resistance		IEC 60068-2-27:2008

(1) Standard value: Actual value depends on environmental conditions

Outline and Mounting

