



Sensing Reality!

2D 270° Navigation LR-1BS Mini LiDAR Sensor



Robotics



Security



Industrial



Intelligent
logistics

Introduction

- ▶ LR-1BS is based on our proven 1B development platform to meet developed in the industrial and commercial industries for cost and size requirements. It can satisfy the vast majority need for mobile robots and automatic guided vehicles (AGV) for safe obstacle avoidance.
- ▶ LR-1BS is suitable for application needs in different industries, such as robotics, security and surveillance, industrial automation and smart logistics.

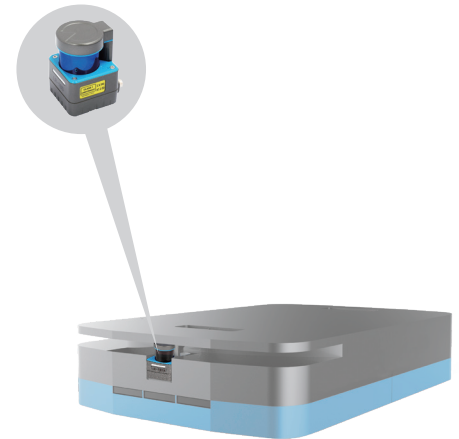
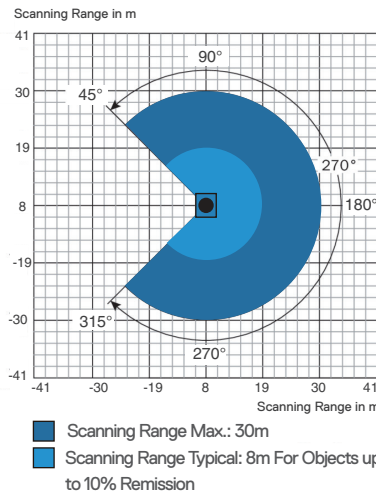


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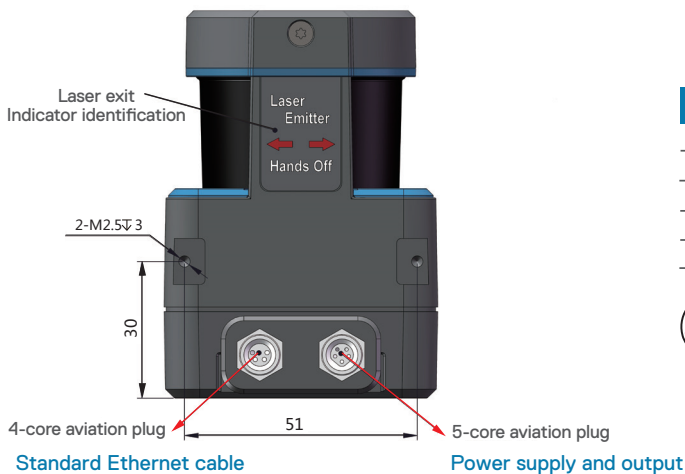
Features

- ▶ Mini-type LiDAR that provides point cloud data output
- ▶ Designed according to industry standards, tested and certified for multiple reliability
- ▶ Compact structure size, height is only 85mm
- ▶ 270° scanning angle, up to 30m effective detection distance (80% reflectivity white board)
- ▶ Communication and data transmission through 100M Ethernet interface

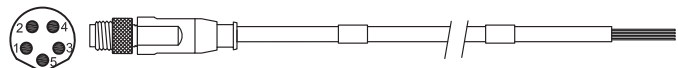
Scanning Range



Electrical Definition



NO.	Wiring color	Definition
1	black	GND
2	red	VCC
3	Gray	GND_IO
4	Brown	VCC_IO
5	blue	Out0



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Specification Table

Item	Unit	LR-1BS Mini 2D 270°	
		LR-1BS3	LR-1BS5
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	0.05~2@1.8% bw 0.05~8m@10% bw 0.05~15@80% wb	0.05~2@1.8% bw 0.05~8m@10% bw 0.05~25m@80% wb
Response time	ms	130ms@10Hz 100ms@15Hz(Max)	
Distance Resolution	mm	1	
Accuracy ⁽¹⁾	mm	Absolute Accuracy: <±20mm Repeate accuracy : <±20mm	
Number of Bank fields		-	
Ethernet Connection		100Mbps Ethernet	
Signal strength		0-65535	
Identification of		YES	
Switching inputs	ea	-	
Switching outputs	ea	1	
Optical Indicators	types	RGBx4	
Connection		5Pin, M8x1, B-code, Female (Power) 4Pin, M8x1, A-code, Female (LAN)	
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		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	
Basic Software		OLAMViewer	

(1) Technical data, such as measurement error and scan range, only guarantees a scan range of 0.5m or more at a target reflectance of 10% to 80%.

Outline and Mounting

