

2D 270° Navigation LR-1BS5-C1 Mini LiDAR Sensor



Robotics



Security



Industrial



Intelligent
logistics

Introduction

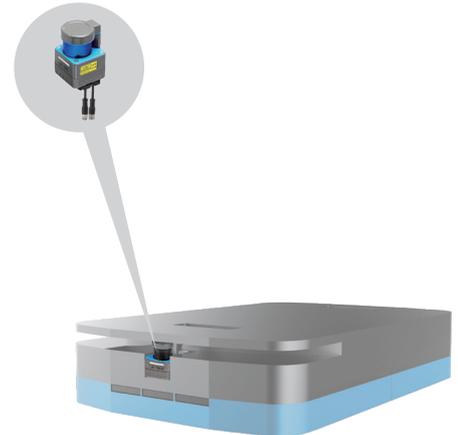
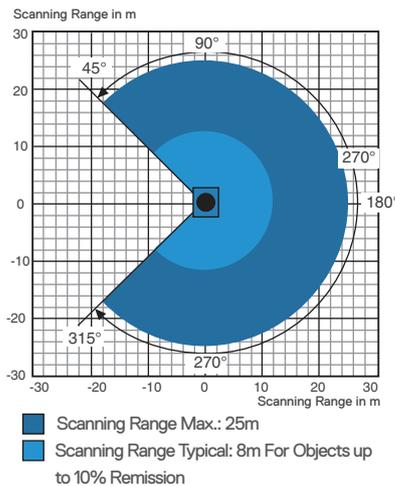
- ▶ LR-1BS5-C1 is based on our proven 1B development platform to meet developed in the industrial and commercial industries for cost and size requirements. It can satisfy the vast majority need for mobile robots and automatic guided vehicles (AGV) for safe obstacle avoidance.
- ▶ LR-1BS5-C1 is suitable for application needs in different industries, such as robotics, security and surveillance, industrial automation and smart logistics.



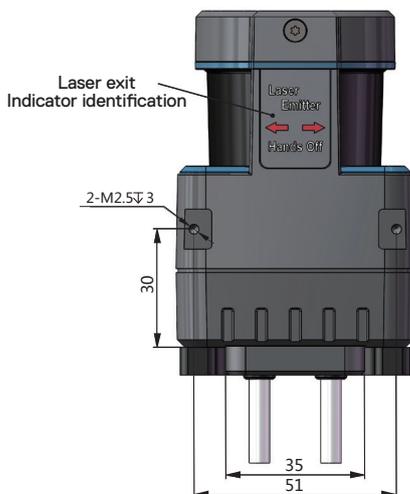
Features

- ▶ 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 25m effective detection distance (80% reflectivity white board)
- ▶ Communication and data transmission through 100M Ethernet interface

Scanning Range

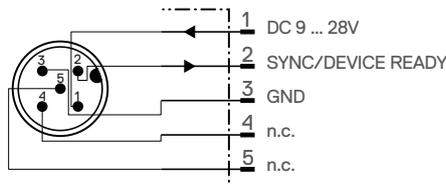


Electrical Definition



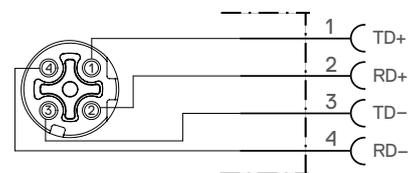
POWER connection

Connection "Power"
5-pin M12 plug



Ethernet connection

"Ethernet" connection
M12 socket, D-encoded



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Specification Table

Item	Unit	LR-1BS5-C1 Mini 2D 270°
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 0.05~25m@80% bw
Response time	ms	130ms@10Hz 100ms@15Hz(Max)
Distance Resolution	mm	1
Accuracy ⁽¹⁾	mm	Absolute Accuracy: $\lt; \pm 20\text{mm}$ Repeate accuracy : $\lt; \pm 20\text{mm}$
Number of Bank fields		-
Ethernet Connection		100Mbps Ethernet
Protocol		UDP, TCP/IP
Signal strength		0-65535
Switching outputs	ea	1
Optical Indicators	types	RGBx4
Connection		5 cores cable with 5Pin M12 connector, Code A, Male 0.2m 4 cores cable with 4Pin M12 connector, Code D, Female 0.2m
Dimensions	mm	$\leq 60 \times 60 \times 92.4$ (cable not included)
Operating voltage	VDC	12~30
Power consumption	W	5
Weight	g	350
Degree of protection		IP66
Operating temperature	°C	-10~+50
Storage temperature	°C	-30~+70
Ambient light limit	LUX	$\lt; 120,000$
Air humidity	RH	$\lt; 95\%$
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

