

2D 270° Obstacle Avoidance LR-1BS2 Mini LiDAR Sensor



- Obstacle avoidance LiDAR with excellent cost performance
- Suitable for obstacle avoidance and safety area protection, with detection capability up to 20m
- Switching output with point cloud data (Through PLC or point cloud data)
- 0.225° fixed angle resolution with $\pm 0.01^\circ$ angle accuracy
- $\pm 0.5^\circ$ horizontal angle accuracy
- Safe area can be set freely, 16-bank.3-level protection
- Certification: FCC, EMC, CE, RoHS, REACH, FDA
- Protection level: IP66



Robotics



Security



Industrial



Intelligent
logistics



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Specification Table

Item	Unit	Specification
Laser wavelength	nm	905±20
Laser safety level		Class 1 (IEC 60825-1:2014)
Laser channels		1
Field of View(horizontal)	°	270
Beam divergence	mrad	longitudinal 5.8 mrad transversal 0.58 mrad
Angle resolution (horizontal)	°	0.225
Scanning frequency	Hz	10~25
Measurement range	m	0.1~2m@2% reflectivity 0.1~8m@10% reflectivity 0.1~10m@80%reflectivity 0.1~10m@reflector
Distance Resolution	ms	1
Signal strength		0-65535
Accuracy (1)	mm	Absolute Accuracy: <±50mm Repeate accuracy<20mm
Ethernet Connection		100Mbps Ethernet
scanning rate	pts	16K~40K
Connection		12 Cores Cable,2m 4Pin, M8x1, A-code, Female,2m (LAN)
Horizontal error (Horizontal Angle)	°	±0.5
Response time	ms	130ms@10Hz
Number of Bank fields		16 Bank, 3 levels/bank
Switching inputs	ea	4
Switching outputs	ea	4
Mechanical Dimensions	mm	≤60*60*85
Operating voltage	VDC	12~32
Power consumption@25℃	w	5
Weight	g	450
Degree of protection		IP66
Operating temperature	℃	-10~+50
Storage temperature	℃	-30~+70
Air humidity		<95%
Optical Indicators		RGB*4
Mounting		Bottom/Back
Ambient light limit	LUX	< 80000
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		Oforge
Function Software		OLAMViewer ROS driver

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

Outline and Mounting

