

RANGER

AB-LD-B01-R05-DRJ45 (Raw Data) &
AB-LD-B01-R05-DI/O (IO Signal)

ATOMBOTIX



- 270° (angle)
- 5 m (distance)
- 0.5° (angular resolution)
- ± 40 mm (absolute accuracy)
- 6 $\times$ NPN (input), 4 $\times$ NPN (output), 1 $\times$ USB (Micro)
- 20 Hz

Model	AB-LD-B01-R05-DRJ45 & AB-LD-B01-R05-DI/O
Performance Parameters	
Detection Distance	0.05 m – 6 m (reflectivity 10%) 0.05 m – 10 m (reflectivity 90%)
Detection Angle	270° (2D)
Corresponding Time	50 ms
Scan Frequency	20 Hz
Angle Resolution	0.1° / 0.2° (Software Configurable)
Absolute Accuracy	± 40 mm
Measurement Noise	± 30 mm
Detect Output Delay	0-500 ms Configurable
Detect Maintain Delay	0-500 ms Configurable
Essential Parameters	
Communication	I/O, CAN, RS232, RS485, Ethernet, USB
Light Source Wavelength	905 nm
Pulse Time	5 ns
Output Raw Measurement Data	Optional
Indicator (display) Light	4 $\times$ LED (green, yellow, orange, red)
Cable	1 m
Optical Hood Coating	Support
Number of Regional Protections	3
Number of Obstacle Avoidance Channels	64
Material	Aluminum Alloy, PMMA
IP Ratings	IP65
Electrical Parameters	
Working Voltage	DC 18V – 32V
Rated Power	<2 W
Environmental Parameter	
Object Reflectivity	2 – 1000%
Ambient Light	<80000 Lux (resistant to sunlight)
Usage Environment	-10 °C – 50 °C (indoor use), <80% RH (no frost, no condensation)

