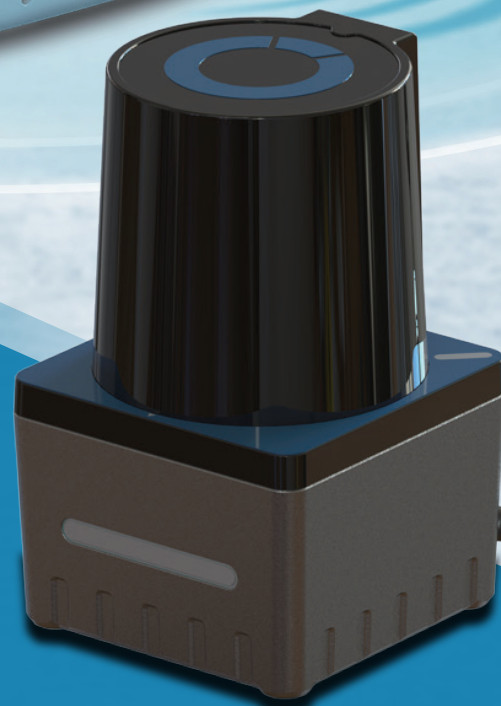
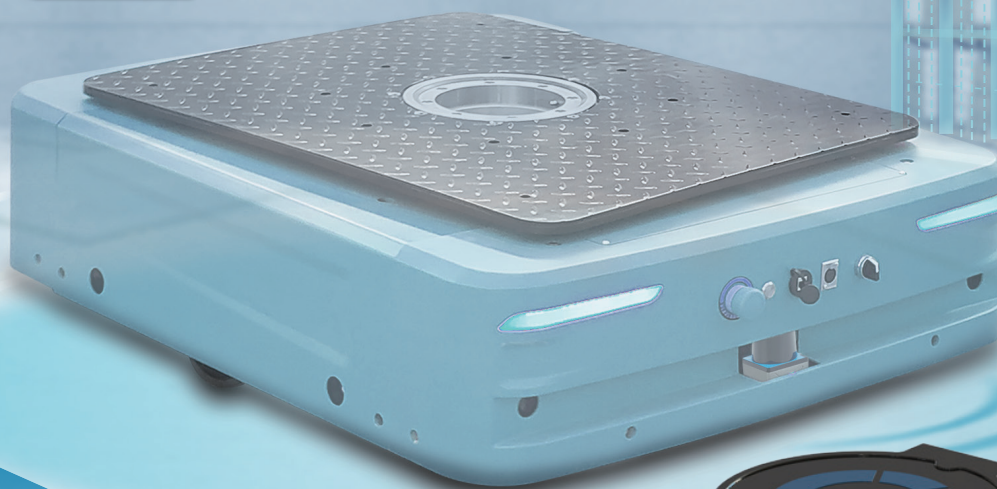
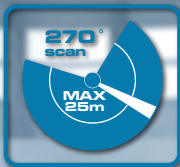


## VB Series 2D LiDAR Sensor



- The single-line scanning design uses ToF time-of-flight ranging technology to measure distance based on the round-trip time difference of the laser pulse. The LiDAR ranging accuracy does not change with distance, and the detection of distant objects is more accurate.
- High-speed ranging: ranging frequency 27K-45KHz
- Adopt industrial interface design and use network protocol to transmit point cloud data
- Strong resistance to interference of ambient light; dust and water resistance level: IP65



Robotics



Security



Industrial



Intelligent  
logistics



## Specification table

Item	Unit	VBD1-10	VB1-25	VBD1-25
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	6mrad		
Scanning frequency	Hz	15Hz/20Hz/25Hz		
Angle resolution	°	0.2		
Working distance (based on reflectivity)	m	Reflector: 0.2~10m 80%: 0.2~10m 10%: 0.2~8m 4%: 0.2~4m	Reflector: 0.2~25m 80%: 0.2~25m 10%: 0.2~8m 4%: 0.2~5m	Reflector: 0.2~25m 80%: 0.2~25m 10%: 0.2~10m 4%: 0.2~5m
Distance Resolution		1		
Accuracy <sup>(1)</sup>	mm	Absolute Accuracy: <±50mm Repeat accuracy: ≤20mm	Common targets Absolute Accuracy: <±20mm Reflector Absolute Accuracy: <±40mm Repeat accuracy: ≤20mm	Common targets Absolute Accuracy: <±20mm Reflector Absolute Accuracy: <±40mm Repeat accuracy: ≤20mm
Ethernet connection		100Mbps Ethernet		
Scanning rate	pts	27K@15Hz, 36K@20Hz, 45K@25Hz		
Interface type		Type A M12-12Pin a viation female connector, J45 (Ethernet port)	5.5mm DC (Power Interface), RJ45(Ethernet port)	Type A M12-12Pin a viation female connector, J45 (Ethernet port)
Horizontal error (Horizontal Angle)	°	≤±1		
Response time	ms	200ms@15Hz	/	200ms@15Hz
Setting area		16 Bank, 3 levels/bank	/	16 Bank, 3 levels/bank
Switching Input	piece	4	/	4
Switching Output	piece	4	/	4
Output current		50mA	/	50mA
Mechanical dimensions	mm	50*50*80		
Power consumption @25°C	w	≤3 (without load)	≤3	≤3 (without load)
Operating voltage	VDC	12~26		
Weight	g	180		
Degree of protection		IP65		
Operating temperature	°C	-10~+50		
Storage temperature	°C	-30~+70		
Relative humidity	RH	<95%		
Indicator status		RGB*4		
Ambient light limit	LUX	<80000		
Installation way		Bottom		
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		OleView / SafetyConfigTool	OleView / ROS driver	OleView / SafetyConfigTool

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

## Outline and mounting

