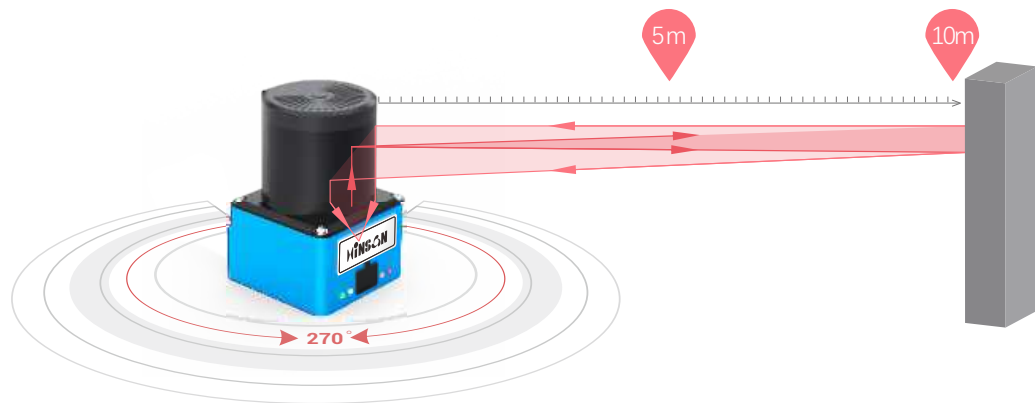


SE Series 270° TOF laser sensor

The laser scanning sensor adopts TOF technology, which reflects the laser when it encounters an object. After receiving the reflected laser beam, the scanning sensor measures the distance between the sensor and the object by calculating the time difference. It continuously performs two-dimensional scanning within the maximum scanning angle, establishes an environmental contour map through algorithms, and establishes an area protection range. When the environment changes within the set area, the upper computer obtains data and makes further judgments and processing.

270°scanning range Scanning radius:5m/10m

Maximum scanning angle: 270, Minimum angle resolution: 0.1, Maximum detection distance: 10m(@90% Reflectivity).



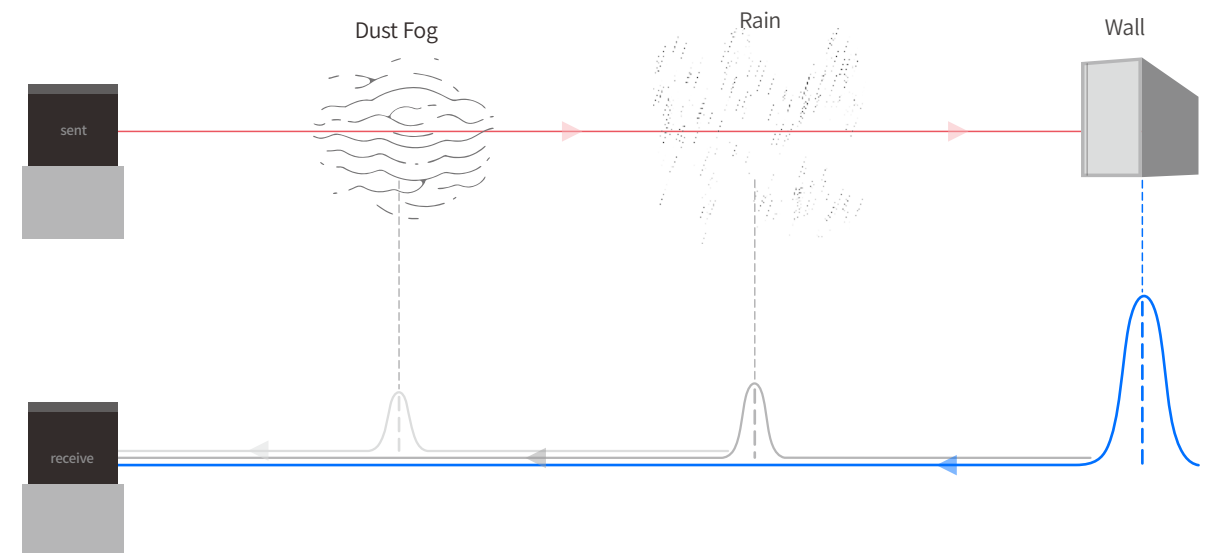
Support 64 channel selection

Through Hinson software configuration, support 64 channel selection (each channel support 3 independent detection range).



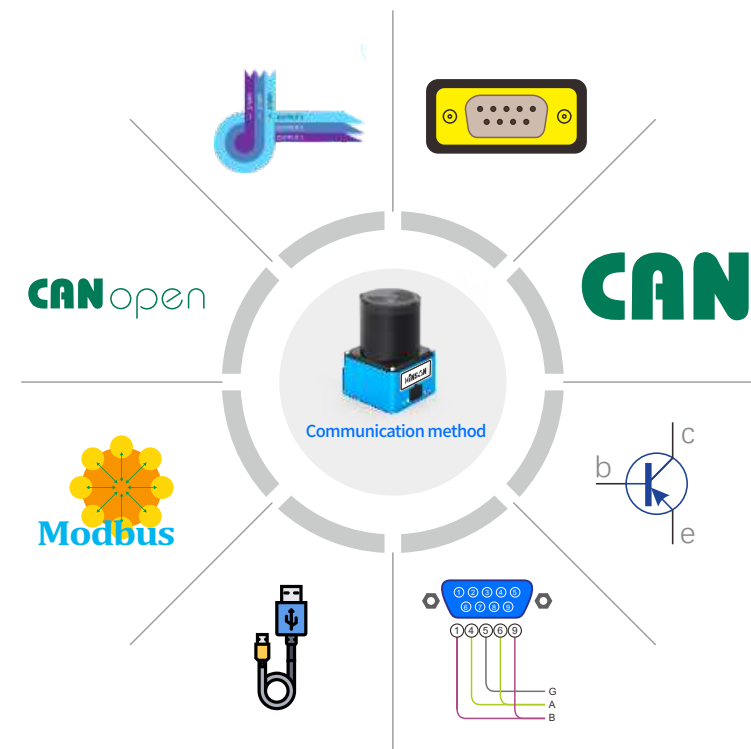
Multiple echo technology

Multi-echo technology can detect multiple echo signals of each measurement beam, so that echoes caused by rain or dust mist, complex structural objects, etc. during the operation cycle of the emitted beam can be identified, and filtered and suppressed when necessary.



Support multiple communication method

Supports communication methods such as RS485, RS232, I/O PNP, I/O NPN, CAN BUS, CAN Open, TCP/UDP, USB (Micro), etc., to meet various communication needs.



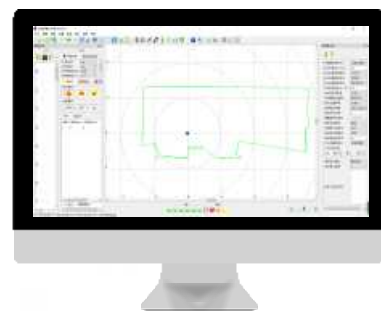
Invisible protective layer

Invisible nano electroplating protective layer to reduce electrostatic adsorption of dust.

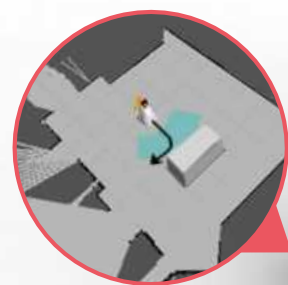


Self-check analysis

Intelligent hardware self-check analysis function, avoid unstable work status, ensure safe operation.



Hinson software visual operation interface



It is widely used in industrial robots (AGV/AMR) intelligent obstacle avoidance, contour construction, navigation, mapping and positioning, etc.

Application

Products are widely used in: AGV vehicle navigation, obstacle avoidance, safe area protection, contour profile environment identify, over-limitation detection, overflow control and counting.



Overflow control and counting, security area protection

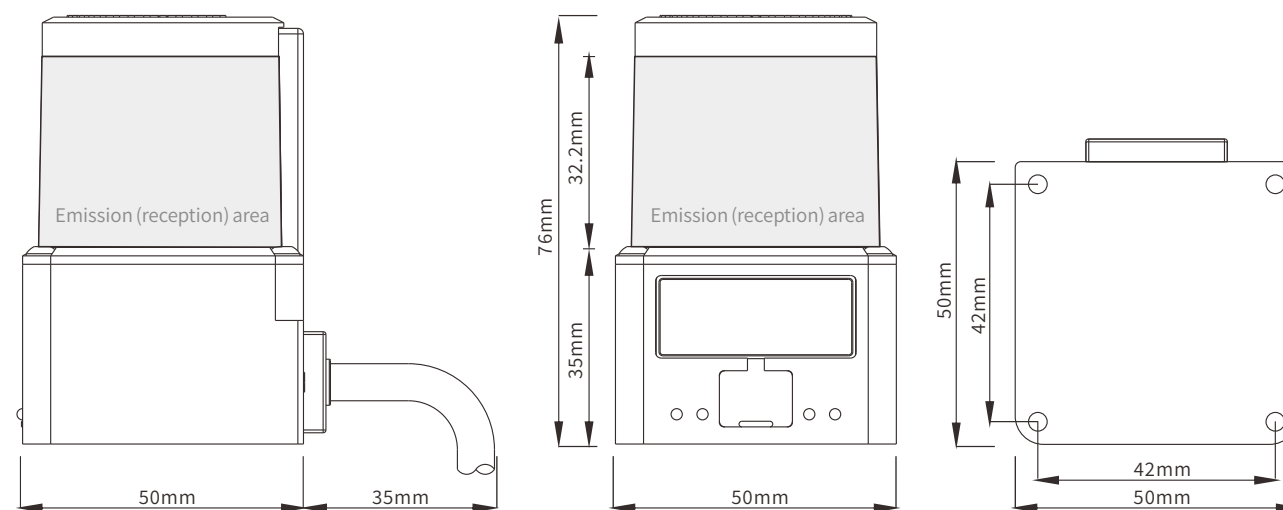


AGV navigation and obstacle detection




AGV trolley navigation and obstacle avoidance

Technical parameter



Wire Bending Reserved Installation



	Product Model	SE-0522	SE-0526	SE-0533	SE-0535
 Features	Detection distance	0.05~5m (≥Reflektivty90%)			
		0.05~2m (≥Reflektivty10%)			
	Detection angle	270°			
	Angle resolution	0.5°(Minimum resolution of obstacles 0.5°)			0.1° / 0.2°
	Scanning frequency	20Hz			
	Identify object shape	Any shape, reflectivity calculated by detection distance			
	Systematic error	±30mm			
	Statistical error	±30mm			
	Scan filter level	±10mm			
	Detection output time delay	0~500ms			
	Detection hold time-delay	0~500ms			

Interfaces

Switch input	6*NPN	6*PNP	–	–
Switch output	4*NPN	4*PNP	2*NPN	4*NPN
Micro-USB	●	●	●	–
RS232	–	–	●	–
RS485	–	–	RS485(Modbus RTU)	–
CAN BUS	–	–	Free Protocol	CAN Open
Ethernet	–	–	–	●
Output raw test data	–	–	●	●
Multi-echo technology	–	–	–	–
Obstacle-avoidance channels	64(each channel can provide 3 independent detection ranges)			

Mechanics/electronics

Voltage	DC18~32V			
Laser class	905nm Class1 (IEC 60825-1:2014)			
Indicator light	4*LED (Green,Yellow, Orange, Red)			
Cable	1m			
Optical cover coating	–	–	–	–

Ambient data

Object reflectivity	2-1000%			
Ambient light	< 80000Lux			
Working environment	Indoor -10~50℃ <80% RH(No condensation, No frost)			


Up control

Controller	–	–	–	SEER
	–	–	–	睿芯行 RUIXINXING

● Support – Not Supported

SEER
SRC-2000/SRC-3000/SRC-880
RUIXINXING
XMC100/XMC300/XMC500/XMC550



	Product Model	SE-1022	SE-1026	SE-1033	SE-1035
 Features	Detection distance	0.05~10m (≥Reflevtivity90%)			
		0.05~6m (≥Reflevtivity10%)			
	Detection angle	270°			
	Angle resolution	0.5°(Minimum resolution of obstacles 0.5°)			0.1° / 0.2°
	Scanning frequency	20Hz			
	Identify object shape	Any shape, reflectivity calculated by detection distance			
	Systematic error	±30mm			
	Statistical error	±30mm			
	Scan filter level	±10mm			
	Detection output time delay	0~500ms			
	Detection hold time-delay	0~500ms			

Interfaces

Switch input	6*NPN	6*PNP	–	–
Switch output	4*NPN	4*PNP	2*NPN	4*NPN
Micro-USB	●	●	●	–
RS232	–	–	●	–
RS485	–	–	RS485(Modbus RTU)	–
CAN BUS	–	–	Free Protocol	CAN Open
Ethernet	–	–	–	●
Output raw test data	–	–	●	●
Multi-echo technology	–	–	–	–
Obstacle-avoidance channels	64(each channel can provide 3 independent detection ranges)			

Mechanics/electronics

Voltage	DC18~32V			
Laser class	905nm Class1 (IEC 60825-1:2014)			
Indicator light	4*LED (Green,Yellow, Orange, Red)			
Cable	1m			
Optical cover coating	–	–	–	–

Ambient data

Object reflectivity	2-1000%			
Ambient light	< 80000Lux			
Working environment	Indoor -10~50℃ <80% RH(No condensation, No frost)			

Up control

Controller	–	–	–	SEER
	–	–	–	睿芯行 RUIXINXING

● Support – Not Supported

SEER
SRC-2000/SRC-3000/SRC-880
RUIXINXING
XMC100/XMC300/XMC500/XMC550



Product Model	SE-0522F11	SE-0526F11	SE-0533F11	SE-0535F11
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Features

Detection distance	0.05~5m (≥Reflevtivity90%)	
	0.05~2m (≥Reflevtivity10%)	
Detection angle	270°	
Angle resolution	0.5°(Minimum resolution of obstacles 0.5°)	0.1° / 0.2°
Scanning frequency	20Hz	
Identify object shape	Any shape, reflectivity calculated by detection distance	
Systematic error	±30mm	
Statistical error	±30mm	
Scan filter level	±10mm	
Detection output time delay	0~500ms	
Detection hold time-delay	0~500ms	

Interfaces

Switch input	6*NPN	6*PNP	–	–
Switch output	4*NPN	4*PNP	2*NPN	4*NPN
Micro-USB	●	●	●	–
RS232	–	–	●	–
RS485	–	–	RS485(Modbus RTU)	–
CAN BUS	–	–	Free Protocol	CAN Open
Ethernet	–	–	–	●
Output raw test data	–	–	●	●
Multi-echo technology	3 (First, Second, Last, Maximum Energy)			
Obstacle-avoidance channels	64(each channel can provide 3 independent detection ranges)			

Mechanics/electronics

Voltage	DC18~32V			
Laser class	905nm Class1 (IEC 60825-1:2014)			
Indicator light	4*LED (Green,Yellow, Orange, Red)			
Cable	1m			
Optical cover coating	●	●	●	●

Ambient data

Object reflectivity	2-1000%			
Ambient light	< 80000Lux			
Working environment	Indoor -10~50℃ <80% RH(No condensation, No frost)			

Up control

Controller	–	–	–	SEER
	–	–	–	睿芯行 RUIXINXING

● Support – Not Supported

SEER
SRC-2000/SRC-3000/SRC-880
RUIXINXING
XMC100/XMC300/XMC500/XMC550



Product Model	SE-1022F11	SE-1026F11	SE-1033F11	SE-1035F11
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Features

Detection distance	0.05~10m (≥Reflativity90%)	
	0.05~6m (≥Reflativity10%)	
Detection angle	270°	
Angle resolution	0.5°(Minimum resolution of obstacles 0.5°)	0.1° / 0.2°
Scanning frequency	20Hz	
Identify object shape	Any shape, reflectivity calculated by detection distance	
Systematic error	±30mm	
Statistical error	±30mm	
Scan filter level	±10mm	
Detection output time delay	0~500ms	
Detection hold time-delay	0~500ms	

Interfaces

Switch input	6*NPN	6*PNP	–	–
Switch output	4*NPN	4*PNP	2*NPN	4*NPN
Micro-USB	●	●	●	–
RS232	–	–	●	–
RS485	–	–	RS485(Modbus RTU)	–
CAN BUS	–	–	Free Protocol	CAN Open
Ethernet	–	–	–	●
Output raw test data	–	–	●	●
Multi-echo technology	3 (First, Second, Last, Maximum Energy)			
Obstacle-avoidance channels	64(each channel can provide 3 independent detection ranges)			

Mechanics/electronics

Voltage	DC18~32V			
Laser class	905nm Class1 (IEC 60825-1:2014)			
Indicator light	4*LED (Green,Yellow, Orange, Red)			
Cable	1m			
Optical cover coating	●	●	●	●

Ambient data

Object reflectivity	2-1000%			
Ambient light	< 80000Lux			
Working environment	Indoor -10~50℃ <80% RH(No condensation, No frost)			

Up control

Controller	–	–	–	SEER
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● Support – Not Supported

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