

# LiDAR Scanner LN TYPE



### Avoiding obstacles and collision avoidance

Work Vehicle Collision Avoidance



### Security

Operational danger zone dynamic protection



### Robot navigation

Service Robot Free Navigation



### Safety precaution

Valuable assets stereoscopic care and video positioning



### Inspection Robot

- Multi-sensor fusion algorithm
- Positioning error is less than 10cm

- Adapt to a variety of environments
- Heading error less than 1 degree

**25Hz**  
Scanning frequency

**0.5°**  
Resolution

**20m**  
Sensing distance

**300°**  
Scanning degree



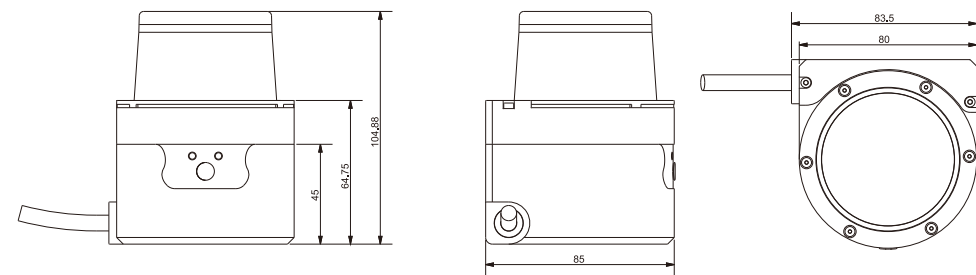
## Specifications

Light source	Infrared laser(905nm)
Laser safety level	Class 1 (GB7247.1-2012, Eye-safe IEC)
Laser spot light diameter	8mm
Laser spot light scan angle	12.5 mrad
Scanning angle range	300°
Scanning frequency	25Hz
Scanning angle resolution	0.5°
Sensing range	0.1m~20m
10% reflectivity range	10m
Outdoor performance	Anti-dusty, Anti-sunlight
Rain fog and smoke penetration	Supported

## Technical performance

Measurement error	5cm 2cm
Built-in application	<ul style="list-style-type: none"> <li>Regional monitoring</li> <li>Monitoring mode: Point number monitoring / target width monitoring / contour monitoring</li> <li>Monitor signal level: Attention / warning / alarm</li> <li>Number of regional groups: 16 groups, support self-learning background exclusion</li> <li>Concurrent work area group number: 16 (max)</li> <li>Guide the network camera to monitor the target video positioning and tracking</li> </ul>
Self-test equipment	<ul style="list-style-type: none"> <li>Contents: Transparent cover dirt / block / high temperature / low temperature</li> <li>Output mode: Indicator + TCP packets</li> </ul>

## Dimensions, mm



## Device interface

Ethernet	Rate: 10/100 Mbps Network protocol: TCP/IP Function: Device configuration / measurement data output / monitor signal output
I/O Input	Quantity: 4 Type: Switching level input High level range: DC 9V □ 28V Low level range: DC 0V □ 5V Preset function: Monitor area selection (0x0 - 0xF) Regional monitoring disarm / forced alarm, active level: high level
I/O Output	Quantity: 4 Type: PNP OC output Level voltage: Supply voltage Power on: High resistance Preset function: Area monitor signal output / device ready, active state: high level
Indicator light	Quantity: 2 definition: ERR (device alarm: Transparent cover dirt / block, high and low temperature) HTR (run status indication: detection signal / self-learning / ready to restart)
Front panel button	Quantity: 1 Definition: Shielded monitor signal output / start background self-learning / restart device




## Electrical / Mechanical parameters

Operating voltage	9V~28V DC
Power	5W
Outer covering protection rank(IP)	IP65(GB4208-2008)
Insulation resistance	1MΩ(GB16796-2009.5.4.4)
Electrical strength	0.5KV(GB16796-2009.5.4.3)
Weight	0.6kg
Dimension(L x W x H)	83.5x86x104.88(mm)
Electrostatic discharge	6KV ( GB/T17626.2-2006, class 3 ) IEC
Fast bursts	1KV ( GB/T17626.4-2008, class 2 ) IEC
Electromagnetic field radiation immunity	GB/T17626.3-2006, class 2
Surge immunity	GB / T17626.5-2008 Power interface: 1.2 / 50 μs, 2KV / 1KA (Class 3) Ethernet interface: 10 / 700 μs, 1KV / 25A (Class 2) I / O interface: 1.5 / 50 μs, 0.5KV / 0.25KA (Class 1)
Impact	GB/T 2423.5 <ul style="list-style-type: none"> <li>Single impact</li> <li>Continuous impact</li> </ul>
Vibration	GB/T 2423.10 <ul style="list-style-type: none"> <li>Frequency Range</li> <li>Amplitude</li> </ul>
Humidity	93%, +40°C, 2h ( GB/T 2423.3 )
Operating temperature range	-25°C - +50°C
Storage temperature range	-30°C - +70°C
Ambient illumination range	≤70,000lux

## Power interface

Power	Socket	Type	Explanation
I/O	DC002	Power	Female2 pin
Network port	Ethernet	RJ45 socket	4 pin
	I/O	Cable	9 pin

## Indicators and Operation buttons

Name	Instructions
 ERR	Work fault indicator ◆ Startup Status: Bright (About 27s) ◆ Always off: No fault ◆ Always on: Internal fault ◆ Long flicker (0.25Hz): High/low temperature alarm ◆ Short flicker (0.5Hz): Transmissive cover is dirty/occluded
 HTR	Work status indicator ◆ Startup status: Light (10s) → Off (2s) ◆ Off: The device did not start measurement/ready to restart ◆ Always on: Normal measurement of the device ◆ Flash 1 (1Hz): Ready to start self-learning* ◆ Flash 2 (0.5Hz): Monitor Signal output ◆ Flash 3 (0.25Hz): Self-learning*
 SLR	Operation button ◆ Short press 1 (0.5s~1s): Shield (15s) Monitor Signal output ◆ Short press 2(3s~6s): Start background self-learning ◆ Long press (≥6s): Restart the device

\*: Long press (≥6s): Restart the device

## Measuring coordinate system/scan range/range

