LiDAR Scanner

LDS2030B5-5S

25Hz	**0.5°**	**20m**	**300°**
Scanning frequency	Resolution	Sensing distance	Scanning degree

Measuring coordinate system/scan range/range

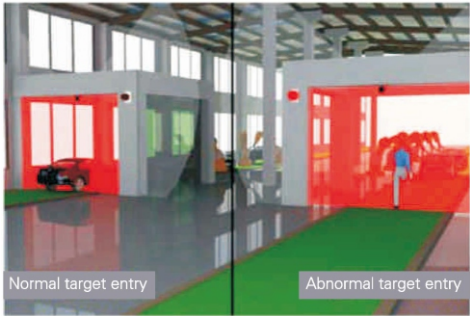- 20 meters maximum range
- 10% Reflectance range 15 meters
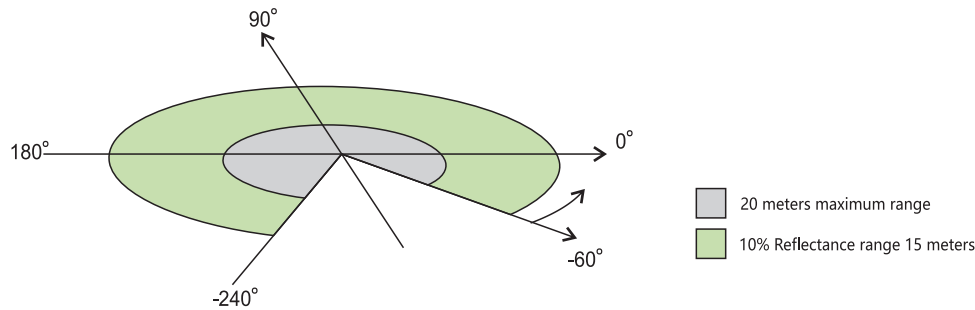
Typical Applications

Avoiding obstacles and collision avoidance
Work Vehicle Collision Avoidance

Security
Operational danger zone dynamic protection

Normal target entry   Abnormal target entry

Robot navigation
Service Robot Free Navigation

Safety precaution
Valuable assets stereoscopic care and video postioning

Inspection Robot
- Multi-sensor fusion algorithm
- Positioning error is less than 10cm
- Adapt to a variety of environments
- Heading error less than 1 degree

Thank you for your interest in LiDAR Scanner!

For other DADISICK product lines and custom-design services...

- Inductive Proximity Sensors
- Photoelectric Sensors
- Sensors Cables

Appearance shape

Specifications

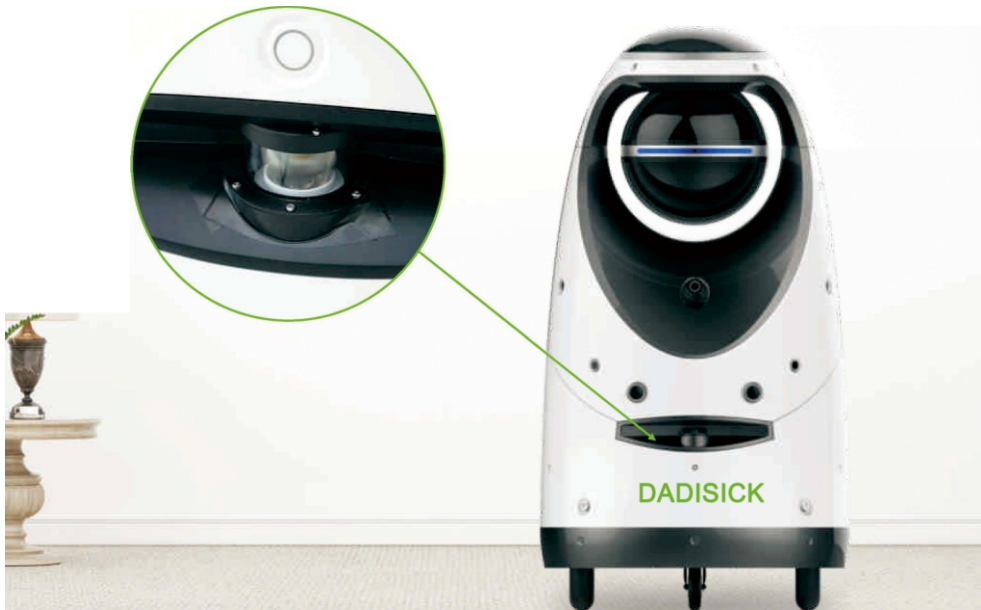|	
Light source	Infrared laser(905nm)
Laser safety level	Class 1 (GB7247.1-2012，Eye-safe IEC)
Laser spot light diameter	8mm
Laser spot light scan angle	12.5 mrad
Scanning angle range	300°
Scanning frequency	25Hz
Scanning angle resolution	0.5°
Sensing range	0.1m~20m
10% reflectivity range	15m
Outdoor performance	Anti-dusty, Anti-sunlight
Rain fog and smoke penetration	Supported

DADISICK®

Adding Value…

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 pieces Type: level input High level range: DC 10V – 30V Low level range: DC 0V – 1.2V Preset functions: Monitoring area group selection (0x0 ~ 0xF) Forced cancellation/forced activation of regional monitoring signal, effective level: high level Power saving and life extension control, effective level: high level
I/O Output	Quantity: 4 pcs Type: PNP / NPN switch output Maximum switch voltage: DC30V Power–on state: Off Preset function: Device ready / area monitoring signal output, effective state: configurable
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	DC 10V – 30V
Power	3.4W (measurement), 7.6W@DC12V / 6W@DC24V (Heating)
Outer covering protection rank(IP)	IP67(GB4208–2008)
Insulation resistance	1MΩ(GB16796–2009.5.4.4)
Electrical strength	0.5KV(GB16796–2009.5.4.3)
Weight	0.6kg
Dimension(L × W × H)	80x85x102(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 / 50μs, 2KV / 1KA (Class 3) Ethernet interface: 10 / 700μs, 1KV / 25A (Class 2) I / O interface: 1.5 / 50μs, 0.5KV / 0.25KA (Class 1)
Impact ● Single impact ● Continuous impact	GB/T 2423.5 15g, 11ms 10g, 16ms
Vibration ● Frequency Range ● Amplitude	GB/T 2423.10 10Hz – 150Hz 5g
Humidity	93%，+40℃，2h（GB/T 2423.3）
Operating temperature range	−25℃ – +50℃
Storage temperature range	−30℃ – +70℃
Ambient illumination range	0lux – 80,000lux
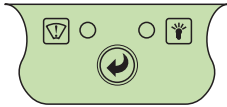
Technical Performance

Measurement error	
● System error (typical)	2cm
● Statistical error (1σ)	1cm

Built–in application	● Regional monitoring ● Monitoring mode: Point number monitoring / target width monitoring / contour monitoring ● Monitor signal level: Attention / warning / alarm ● Number of regional groups: 16 groups, support self–learning background exclusion ● Concurrent work area group number: 16 (max) ● Guide the network camera to monitor the target video positioning and tracking
Self–test equipment	● Contents:Transparent cover dirt / block / high temperature / low temperature ● Output mode: Indicator + TCP packets

Power Interface

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

Power
I/O
Network port

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

Parts

Waterproof sheath	LDS-1	Network cable crystal head waterproof sheath (standard configuration)
Connecting cable	LDS-2	Power cable: 0.5 m long End A: DC002 waterproof power plug 3.5mm * 1.1mm B end: lead, 2–core (Standard configuration)
Mounting bracket	LDS-3	Simple side–mount bracket Stainless steel material （Order separately）
Mounting bracket	LDS-4	Simple mounting bracket Stainless steel material (Standard configuration)
Mounting bracket	LDS-5	Side–mounted/seated composite support Stainless steel material Used together with LDS-3/LDS-4 Adjustable horizontal pitch angle （Order separately）
Connecting cable	LDS-6	Outdoor protective cover Stainless steel material It has anti–collision, sunshade and dirt prevention functions （Order separately）