

LiDAR Scanner

AKU-LS-D20-300



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

AkuSense

Adding Value...

Thank you for your interest in LiDAR Scanner !

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- Inductive Proximity Sensors
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AkuSense

Adding Value...

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Typical Applications

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



Specifications

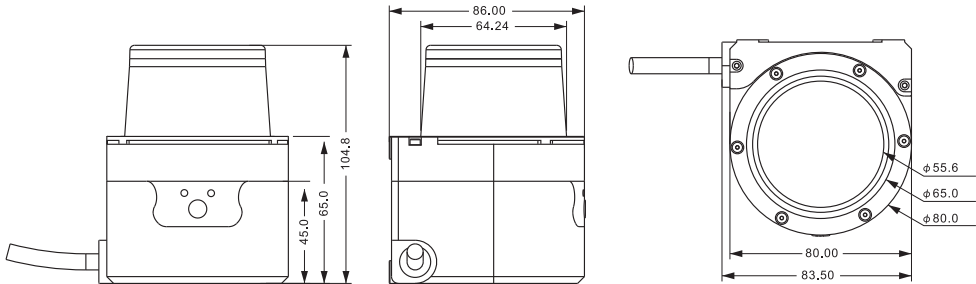
Light source	Infrared laser(905nm)
Laser safety level	Class 1 (GB7247.1–2012, Eye–safe IEC)
Laser spot light diameter	8mm
Laser spot light scan angle	12,5 mrad
Scanning angle range	300°
Scanning frequency	25Hz
Scanning angle resolution	0.5°
Sensing range	0.1m – 20m
10% reflectivity range	10m
Outdoor performance	Anti–dusty, Anti–sunlight
Rain fog and smoke penetration	Supported

Technical Performance

Measurement error - System error (typical) - Statistical error (1 σ)	5cm 2cm
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

Dimensions

Unit: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	DC 9V – 28V
Power	5W
Outer covering protection rank(IP)	IP65(GB4208–2008)
Insulation resistance	1M Ω (GB16796–2009.5.4.4)
Electrical strength	0.5KV(GB16796–2009.5.4.3)
Weight	0.6kg
Dimension(L × W × H)	80x85x100(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 - 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 – 70,000lux

Power Interface

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

Indicators and Operation Buttons

	Name	Instructions
	ERR	Work fault indicator ◆ Startup Status: Bright (12s) ◆ 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

