

### TOF Principle



Appearance		
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(system default)/12.5Hz/6.25Hz	
Scanning angle resolution	0.5° (system default)/0.25° /0.125°	
Sensing range	0.1m ~ 20m	0.1m ~40m
10% reflectivity range	15m	30m
Outdoor performance	Anti-dusty, Anti-sunlight	
Rain fog and smoke penetration	Supported	
Measurement error	System error (typical)	± 5cm ( 1m~20m ) ; ± 10cm ( 20m~40m )
	Statistical error (1σ)	± 2cm ( 1m~20m ) ; ± 4cm ( 20m~40m )
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)	
Self-test equipment	Contents:Transparent cover dirt / block / high temperature / low temperature Output mode: Indicator + TCP packets	
	Guide the network camera to monitor the target video positioning and tracking	
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: 10V~28V DC; Low level range: 0V~5V DC Preset function: Monitor area selection (0x0 - 0xF); Regional monitoring disarm / forced alarm, active level: high level	
I/O Output	Quantity: 4; Type: PNP switch output ; Output voltage: Supply voltage;Power on: OFF;Device ready (OUT), active state: pass (High level), zone detection signal output (OUT2/OUT3/OUT4) active state: configurable	
Indicator light	Quantity: 2; Definition: ERR (Device alarm: Fault/Abnormal ,Transparent cover dirty / block, high and low temperature, Dense fog); HTR (operation status indication: detection signal / self-learning )	
Front panel button	Quantity: 1; Definition: Shielded monitor signal output / start background self-learning /restart device	
Operating voltage	10V~ 28V DC	
Power	5W(measuring),3.6W@DC 12V/14.4W@DC 24V(heating)	
Outer covering protection rank(IP)	IP65(GB4208-2008)	
Insulation resistance	1M Ω (GB16796-2009.5.4.4)	
Dielectric strength	0.5KV(GB16796-2009.5.4.3)	
Weight	0.6kg	
Dimension(L×W×H)	83.5 × 85 × 104.9(mm)	
Electromagnetic compatibility (EMC)	Electrostatic discharge	6KV (GB/T17626.2-2006, class 3)
	Fast bursts	1KV (GB/T17626.4-2008, class 2)
	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	
Single impact	15g, 11ms	
Continuous impact	10g, 16ms	
Vibration	GB/T 2423.10	
Frequency Range	10Hz~150Hz	
Amplitude	5g	
Humidity	93%, +40℃, 2h ( GB/T 2423.3 )	
Operating temperature range	-25℃~+50℃	
Storage temperature range	-30℃~+70℃	
Ambient illumination range	≤70,000lux	
Model NO.	AS-21C	AS-41C

- Fiber Optic
- Slot Sensors
- Photoelectric
- Laser
- Proximity
- Displacement
- Magnetic
- Contact
- Area
- Ultrasonic
- Vision
- Code Readers
- Vibration
- Temperature
- Accessories

#### Guidance

- Light curtains
- Standard type
- Top-emitting type
- Side-emitting type
- Waterproof type
- Measuring type
- Economical type
- Safety Light Curtain
- Beam pitch 10mm
- Beam pitch 20mm
- Beam pitch 30mm
- Beam pitch 40mm

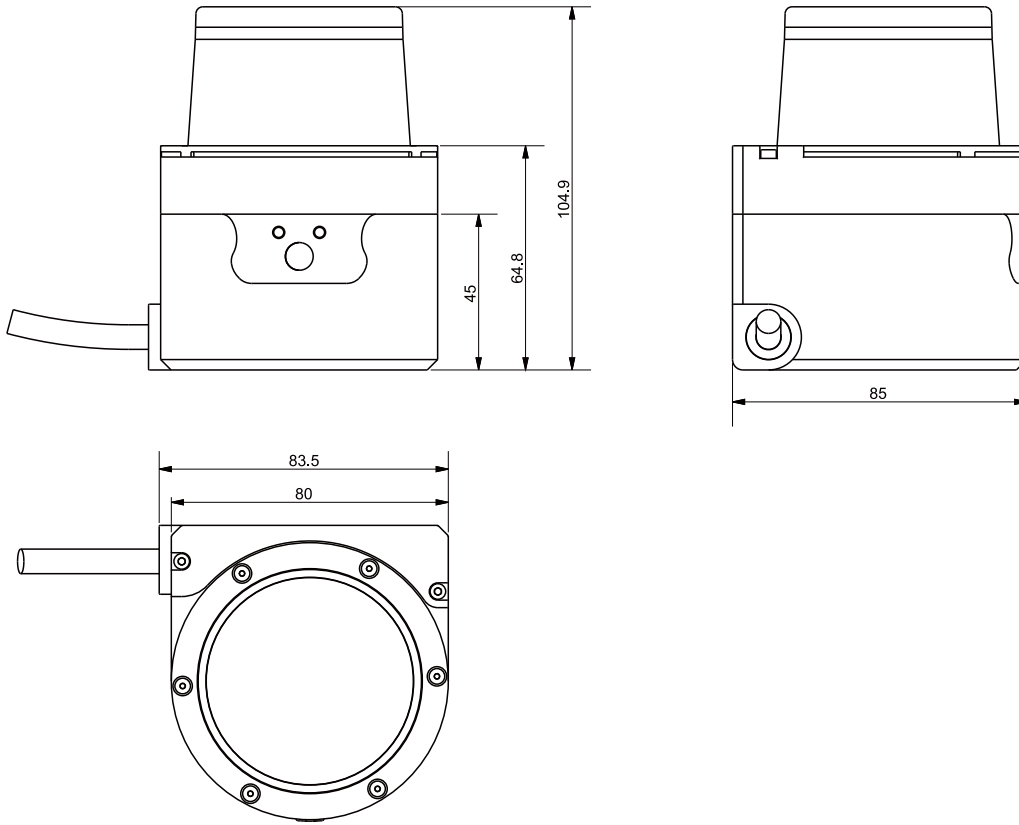
- LIDAR scanner
- TOF LIDAR scanner
- MINI LIDAR scanner
- Navigation LIDAR

# LiDAR Scanner

## Dimensions

Unit:mm

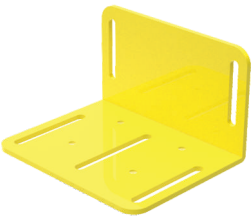


Area

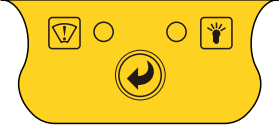





## Power Interface

	Socket	Type	Explanation
I/O	DC002	Power	Female 2 pin
Power	Ethernet	RJ45 socket	4 pin
Network port	I/O	Cable	10 pin

## Accessories

			Mounting screws, gasket and easy installation tool
Composite Bracket: AS-21C-AT 1 Piece	Power Cable: AS-21C-EC 1 Strip	Crystal Protective Cover : AS-21C-WJ 1 Piece	Accessories: M4x8 1 Set

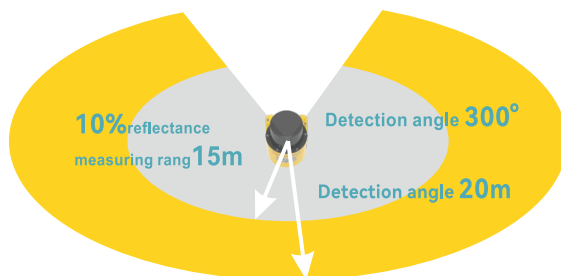
	Name	Instructions
	 <b>ERR</b>	Work fault indicator ♦ Startup state: Light on(About 27s)Always off: No fault ♦ Always on:Internal fault ♦ Always on: Internal fault,Abnormal measurement ♦ Long flicker ( 0.25Hz ) : High / low temperature alarm ♦ Short flicker(1Hz) : Transmissive cover is dirty/occluded <sup>1</sup>
	 <b>HTR</b>	Work status indicator ♦ Startup state: Off ♦ Off: The device does not start measuring/ready to restart ♦ Always on:Equipment normal measurement ♦ Flash1 (0.5Hz) : Monitor Signal output ♦ Flash2 (1Hz) : Self-learning <sup>2</sup> ♦ Flash3 (2.5Hz) : Ready to start self-learning <sup>2</sup>
	 <b>SLR</b>	Operation button ♦ short press (1s~5s)Start background self-learning ♦ Long press( ≥ 6s ) : Delete background

1:Including being blocked by dense fog or the detection area being blocked.

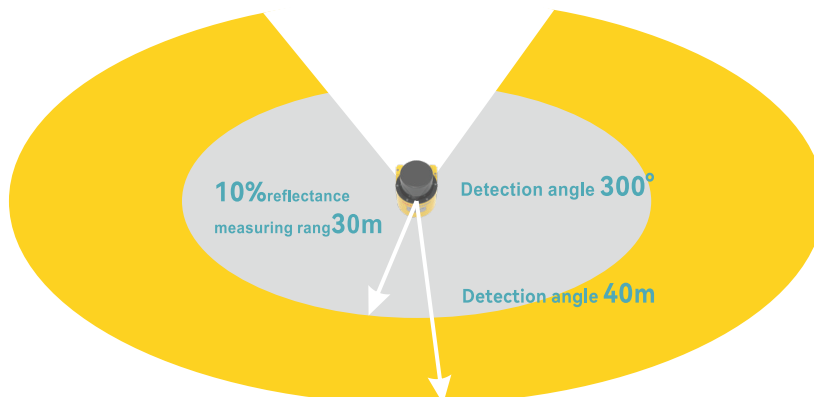
2:Including "background self-learning" and "normal goal self-learning"(customized function).

### Measuring coordinate system/scan range/range

#### AS-21C



#### AS-41C



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