

LGA60 Series

320°Scan High-performance 2D Laser Radar

ESPE new LGA60 compact high performance laser scanner has a detection range over 30m and 0.025° angular that supports navigation and obstacle avoidance. Filtering surface image noise can ensure scanner to obtain more stable and realistic point cloud data, suitable for indoor and outdoor use.



30m detection distance

Maximum 30m detection distance (90% reflectivity target)



320° scanning angle

Maximum scanning range 320°



Integrate functions of navigation and obstacle avoidance

Integrate functions of navigation and obstacle avoidance to maximize the satisfaction of development needs.



Multi-echo processing technology

Work well in mist, haze and outdoors.



0.025° minimum angular resolution

The minimum angular resolution is 0.025° (decided by scanning frequency, rotation speed, and the number of single-point sampling)



64 channels for option

64 channels can be configured by host computer



144KHz scanning frequency

Great capability on high speed sampling to recognize the profile environment accurately.

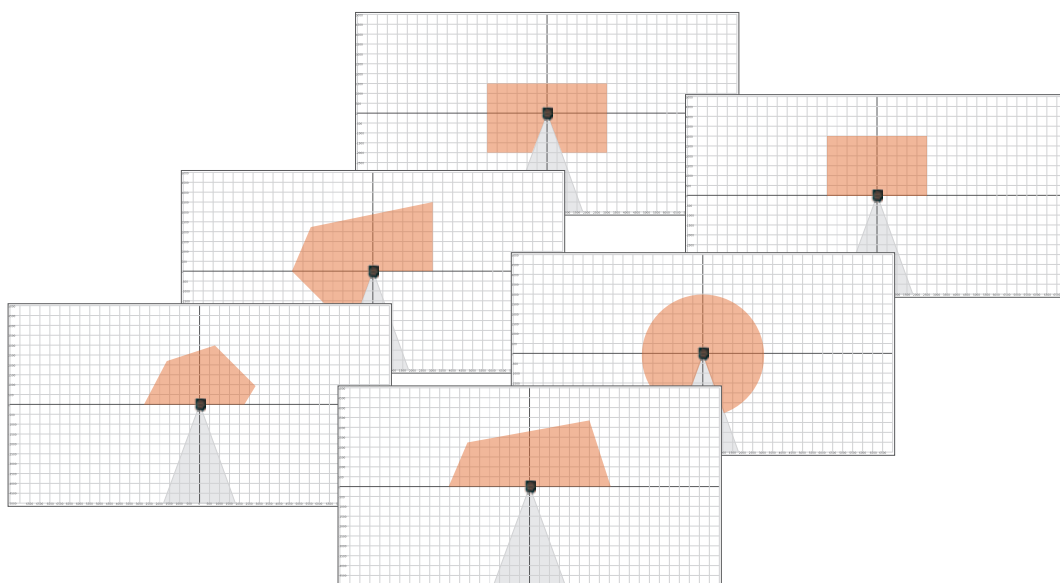


Scanner coated technology

Scanner is coated for preventing dust attachment and ensure high precision.

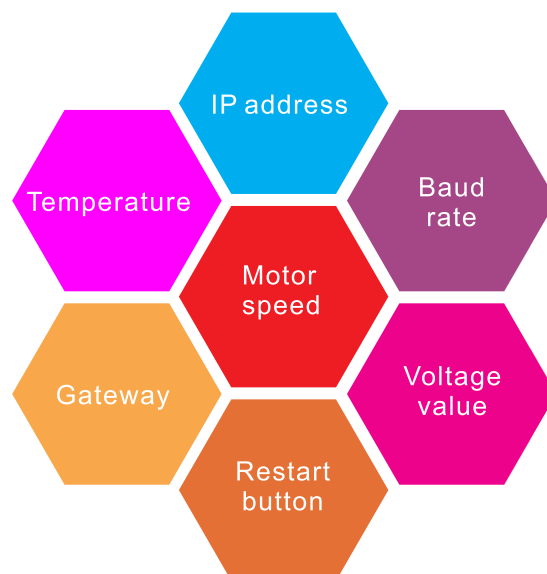
Adjustable Obstacle Avoidance Areas | 64 Channels Optional

ESPE scanner has a visual operating and comprehensive software (it supports up to 64 channel configuration), and straightforward setting hardware (interface with host-computer to acquire various types of hardware detection).



High-resolution LED display| Smart Hardware Status Detection

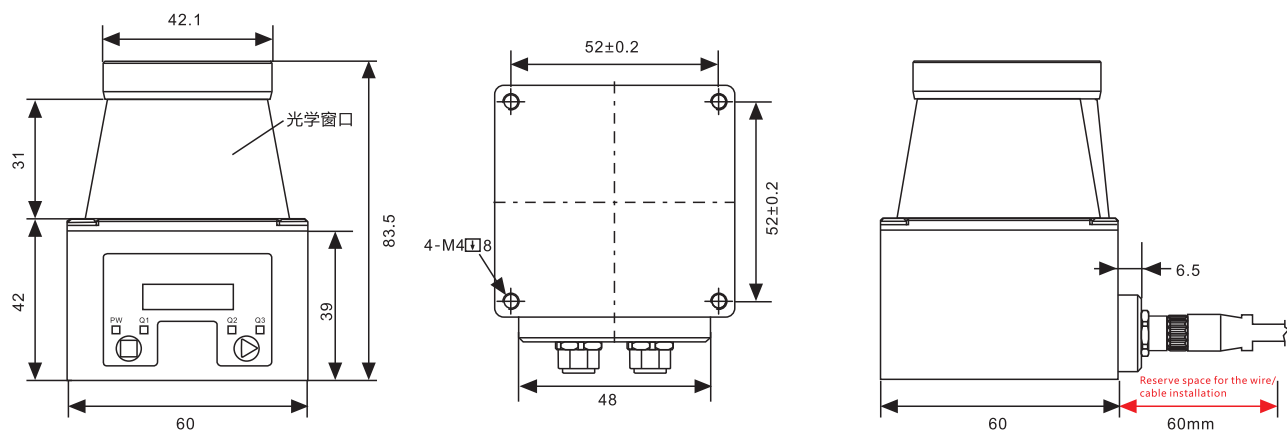
LED screen displays: Temperature, motor speed, current IP, gateway, current channel, RS485, RS232, CAN address, baud rate, voltage etc. (information rolling or static presentation). The display is user-friendly for real-time information and the operation of the equipment remains stable.



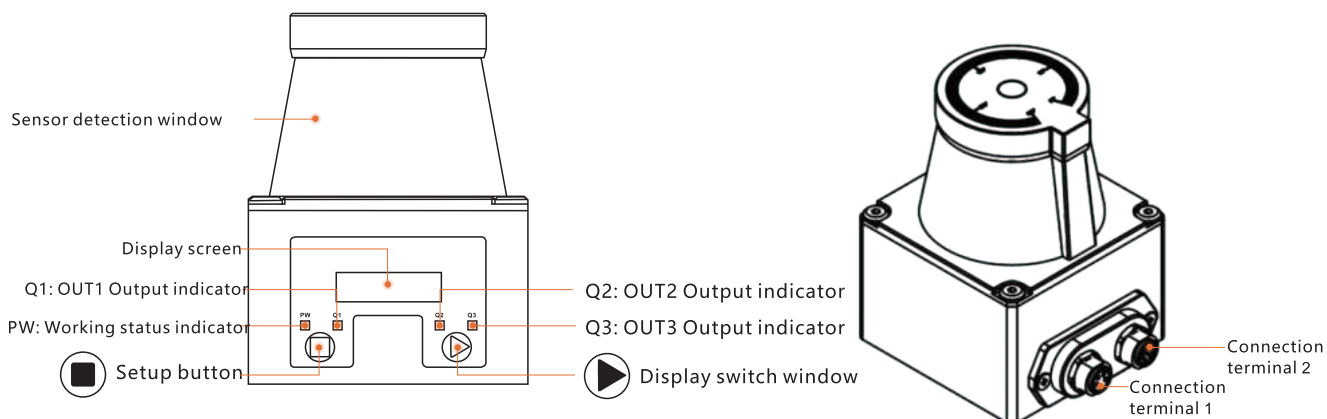
Product parameters

Detection distance	0.1m-10m (reflectivity 20%)
	0.1m-30m (reflectivity 90%)
Detection range	320°
Scanning principle	PRT (pulse ranging technology)
Laser level	Level 1 (IEC60825-1:2014, EN 60825-1:2014)
Wave length	905nm
Sampling rate	144K, 288K, 576K (3 types of scanning frequency for option)
Scanning frequency	10HZ、20Hz can be set
Angular resolution	minimum 0.025
Absolute accuracy	±20mm
Repeat accuracy	±20mm(unfiltered)
Detection resolution	1mm
Power supply	DC 10V~30V
Operating current (DC 24V)	90 mA(144k)
Rated power	< 3W
Contact resistance	below 25mΩ
Output	3*NPN Output Terminal (output signal of red area, orange area and fault)
	Ethernet TCP/UDP output of 320° original detection data;
Communication interface	M8-4 female cable, Ethernet port
	M8-8 female cable, power and digital port
Operating status indicator	Green
Output status indicator	Red, yellow, orange
LED screen	128*64 pixel with OLED screen
Operating temperature	-10°C-55°C, for indoor use
Operating humidity	Below 80%RH
Storage temperature	Storage temperature (-20°C-70°C)
Protection rate	IP65
Ambient light limitation	resistant to sunlight(<100000Lux)
Weight	250g
Dimension (max)	60mm x 60mm x 83.5mm
Sine vibration frequency	10 Hz to 1000 Hz, with an acceleration of 58, in three axes, and 10 cycles for each axis.
Random vibration frequency	5Hz to 250Hz, Gr.m.s =4.248, three axes, 5 hours per axis.
Shock resistance	Acceleration 50g, pulse time 3ms, 5000 impacts on each axis, totaling 30,000 impacts

Product size



Component specification



Installation Requirement

