

# 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.

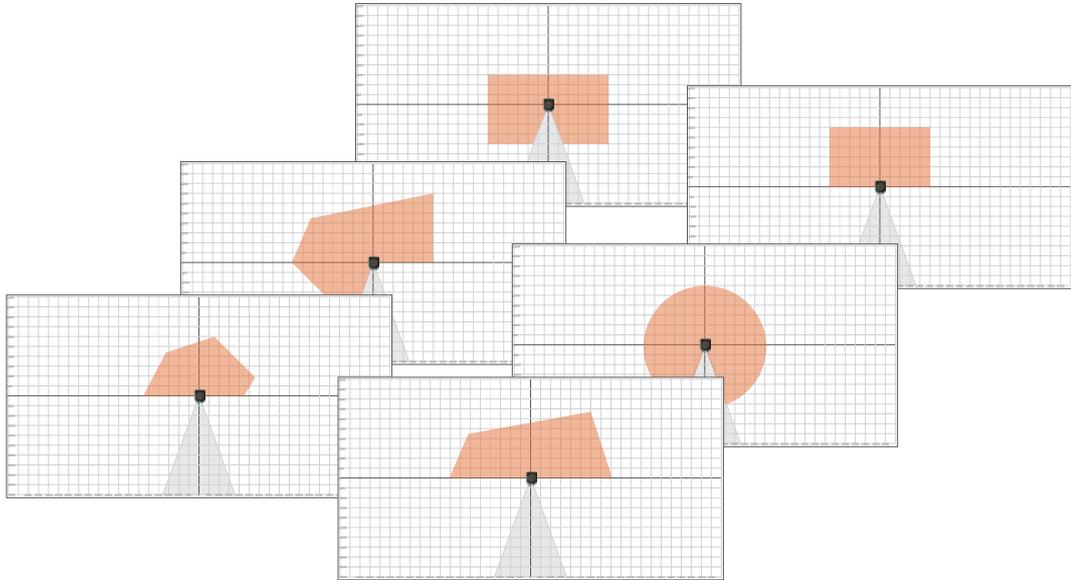


### Scanner coated technology

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

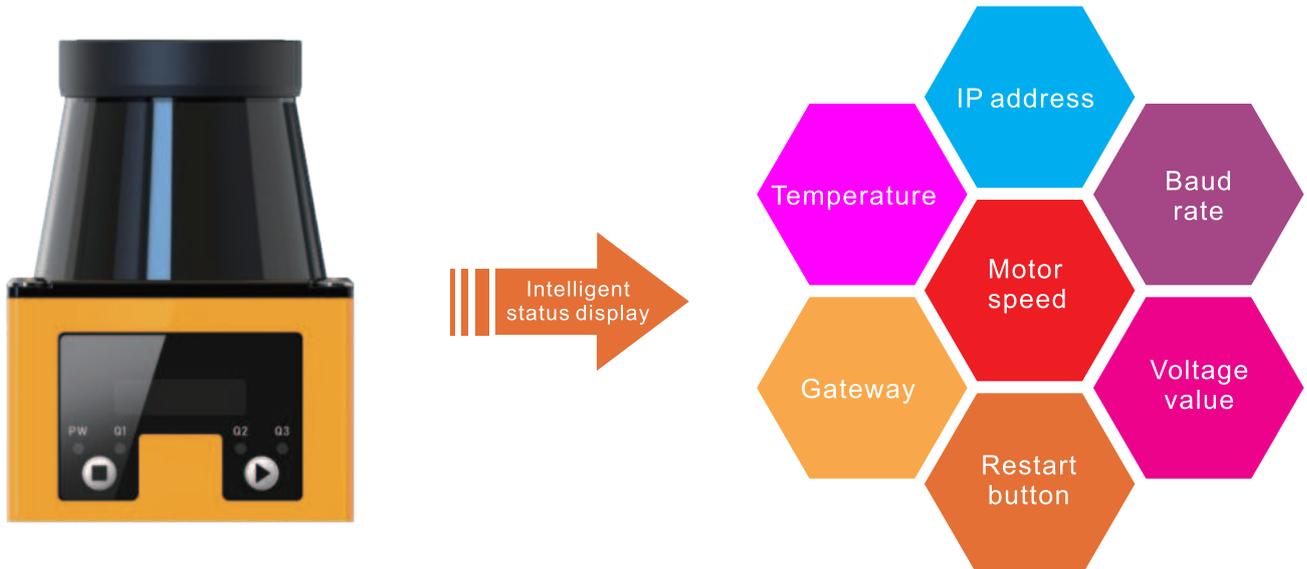
## Adjustable Obstacle Avoidance Areas | 64 Channels Optional

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

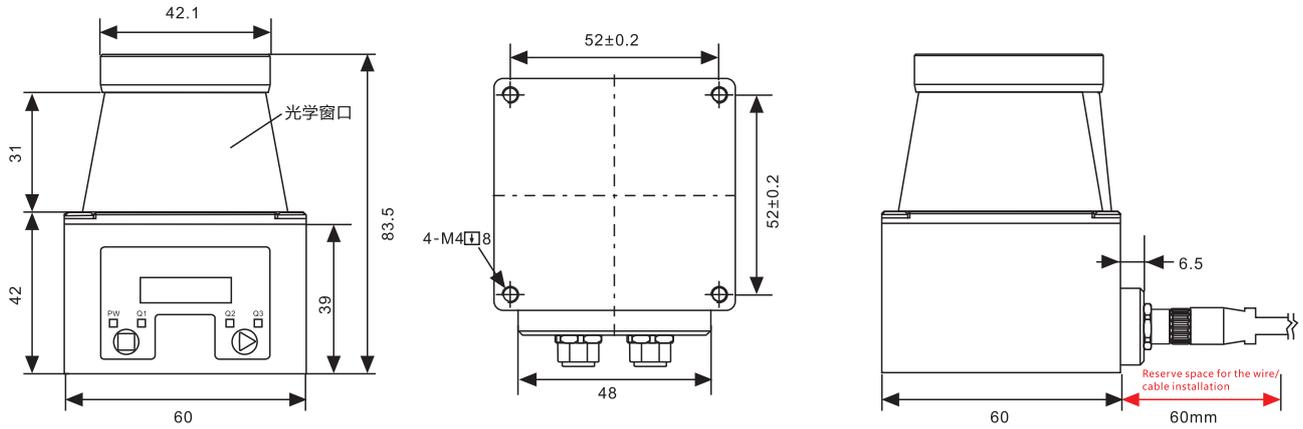
LED screen displays: Temperature, motor speed, current IP, gateway, current channel, RS485, RS232, CAN address, baud rate, voltage etc. (information rolling or static presentation). The display is user-friendly for real-time information and the operation of the equipment remains stable.



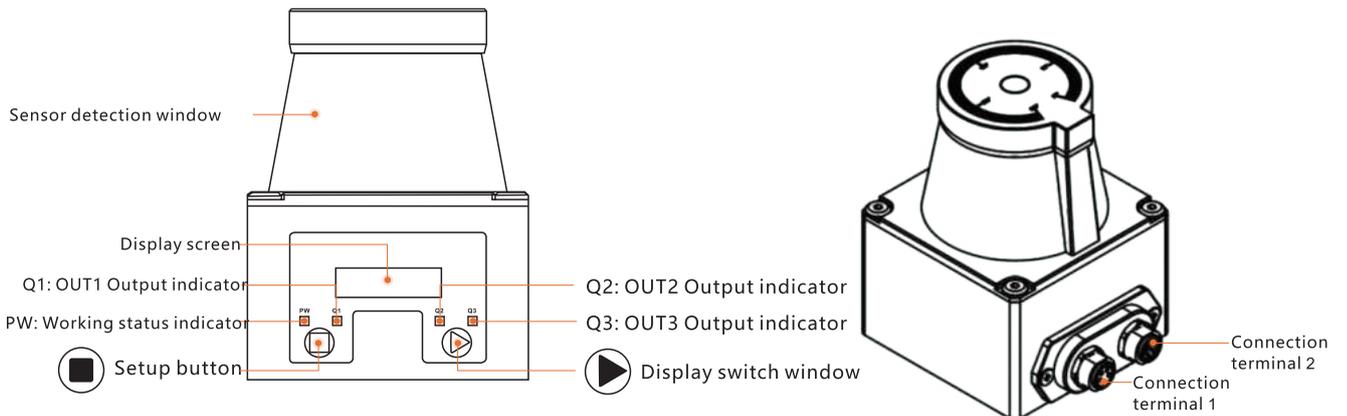
## Product parameters

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
<b>Absolute accuracy</b>	±20mm
<b>Repeat accuracy</b>	±20mm(unfiltered)
Detection resolution	1mm
<b>Power supply</b>	DC 10V~30V
Operating current (DC 24V)	90 mA(144k)
Rated power	< 3W
Contact resistance	below 25mΩ
<b>Output</b>	3*NPN Output Terminal (output signal of red area, orange area and fault)
	Ethernet TCP/UDP output of 320° original detection data;
<b>Communication interface</b>	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
<b>Operating humidity</b>	Below 80%RH
Storage temperature	Storage temperature (-20°C-70°C)
Protection rate	IP65
Ambient light limitation	resistant to sunlight(<100000Lux)
Weight	250g
<b>Dimension (max)</b>	60mm x 60mm x 83.5mm
<b>Sine vibration frequency</b>	10 Hz to 1000 Hz, with an acceleration of 58, in three axes, and 10 cycles for each axis.
<b>Random vibration frequency</b>	5Hz to 250H, Gr.m.s =4.248, three axes, 5 hours per axis.
<b>Shock resistance</b>	Acceleration 50g, pulse time 3ms, 5000 impacts on each axis, totaling 30,000 impacts

## Product size



## Component specification



## Installation Requirement

