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PRODUCT INTRODUCTION

The DLD-100D is a new-generation, high-performance LiDAR product in DAIDISIKE's DLD series. It incorporates multiple cutting-edge technologies. With its long measurement range, high rotational speed, and high point-cloud data rate, it is an excellent sensor solution for autonomous navigation, security, intelligent transportation monitoring, and other applications.

The DLD-100D provides a scan frame rate of up to 100 Hz and a maximum measurement range of 100 m. Even at 100 Hz, it maintains an angular resolution of 0.08°. Combined with an advanced small-spot laser emission system, this significantly improves detection of small targets at long distances. Multiple-return processing enables reliable target detection in dust, rain, fog, and other adverse conditions, making the sensor well suited to complex outdoor applications.



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PRODUCT PARAMETERS

BASIC INFORMATION

Product Name	Single-Line TOF Measurement LiDAR — DLD-100D		
Model	DLD-100DH	DLD-100DC	DLD-100DP

MEASUREMENT CHARACTERISTICS

Detection Range @ 90% Reflectivity	100 m		
Detection Range @ 10% Reflectivity	40 m		
Ranging Accuracy	±20 mm		
Short-Range Ranging Accuracy (0.1 m–15 m)	±10 mm		
Scanning Range	280°	360°	280°
Vertical Field of View	±0.5°		
Scan Frame Rate	50 Hz / 25 Hz		100 Hz
Minimum Angular Resolution	0.08° / 0.16° / 0.32°		0.32°

OPTOELECTRONIC CHARACTERISTICS

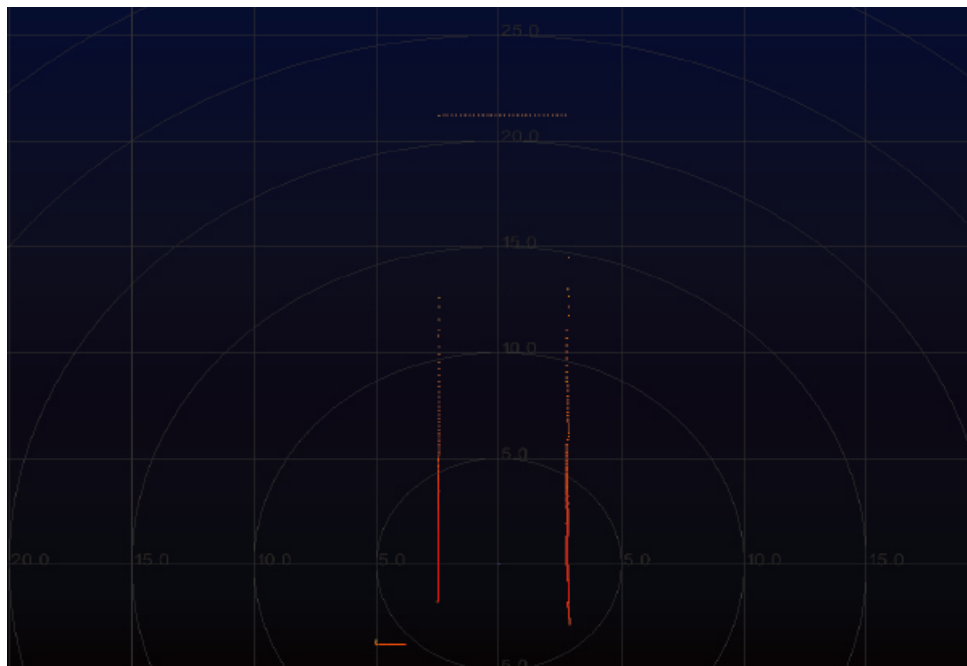
Supply Voltage	9–36 VDC		
Operating Current	0.25 A at 12 V		
Laser Source	905 nm, Laser Class 1		
Power Consumption	3 W (max.)		

OTHER

Data Transmission Interface	Ethernet 100BASE-TX		
Startup Time	<20 s		
PTP Function	Customizable upon request		
Ambient Light Immunity	>80,000 lx		
Operating Temperature	–10°C to 55°C		
Storage Temperature	–30°C to 75°C		
Relative Humidity	<80%		
Service Life	5 years (motor life)		
Vibration Test	10–55 Hz, amplitude 0.75 mm, X/Y/Z axes, 2 h per axis; 50–200 Hz, 196 m/s² (20 G), sweep rate 2 min/cycle, X/Y/Z axes, 2 h per axis		
Protection Rating	IP67		
Dimensions	60 × 60 × 80 mm		
Weight	250 g (cable excluded)		

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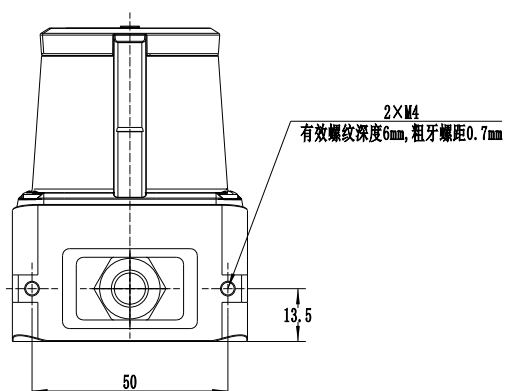
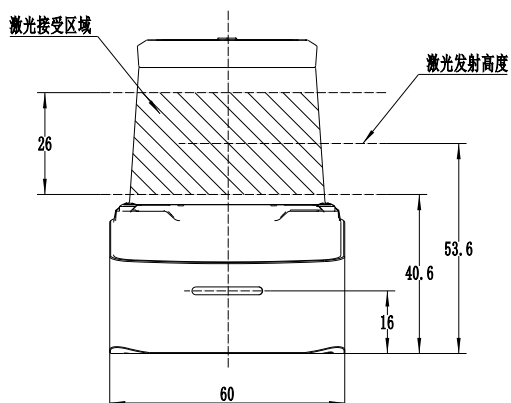
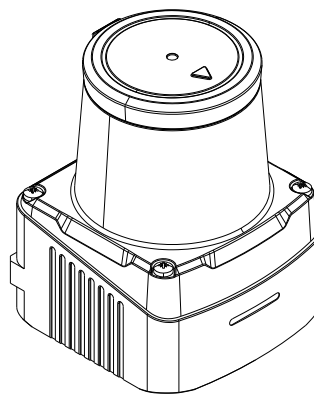
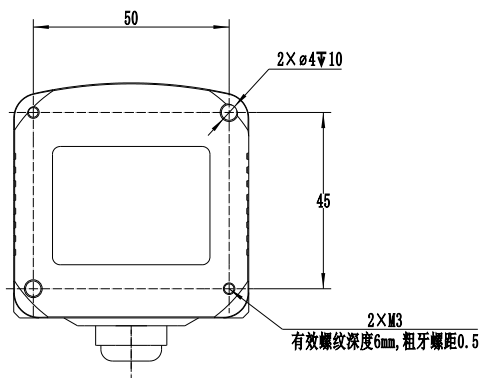
POINT-CLOUD VISUALIZATION



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MECHANICAL DIMENSIONS

单位: mm



5 APPLICATIONS



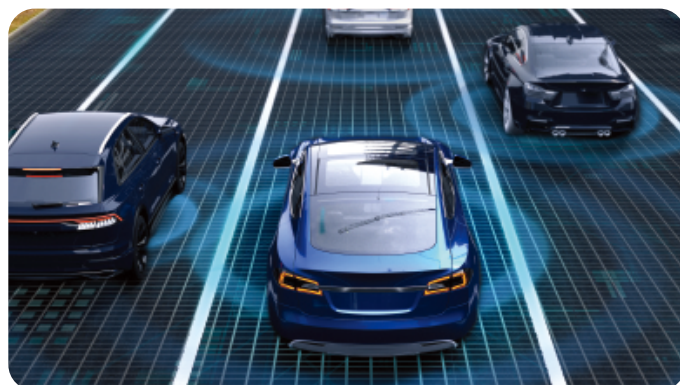
**Safety Protection in
Factory Work Areas**



**Autonomous Localization and
Navigation for Service Robots**



**AGV Obstacle Avoidance
and Navigation**



**Environmental Perception
for Autonomous Driving**



Intelligent Security Monitoring



**Vehicle Detection for
Intelligent Transportation**