



USER MANUAL

LDJ-P7



Laser Distance Sensor
Analog 4-20mA Output

Version 1.0

1.Description

The LDJ-P7 (4-20mA) sensor analog output is a Class 2 visible red laser sensor that provides analog output. Utilizing the time-of-flight measurement principle for precise measurements, the visible red beam spot facilitates alignment in small component detection and measurement applications. With an IP67 protection rating, the sensor requires no external control devices, thereby avoiding additional costs and installation space. The sensor is easy to install—simply mount it within the target's operating range and power it on for immediate use.

The product converts the distance measured by the ranging module into a 4-20mA analog current signal, with available measuring ranges of 0.03-20 meters (resolution: 0.0008mA) or 0.03-50 meters (resolution: 0.00032mA).

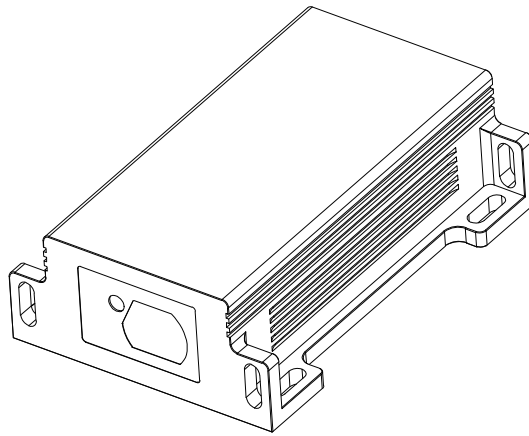
2.Features

- Class 2 visible red laser
- Time-of-flight measurement technology
- Analog output (4-20mA)
- IP67 protection for durability
- No external control needed
- Quick and simple setup

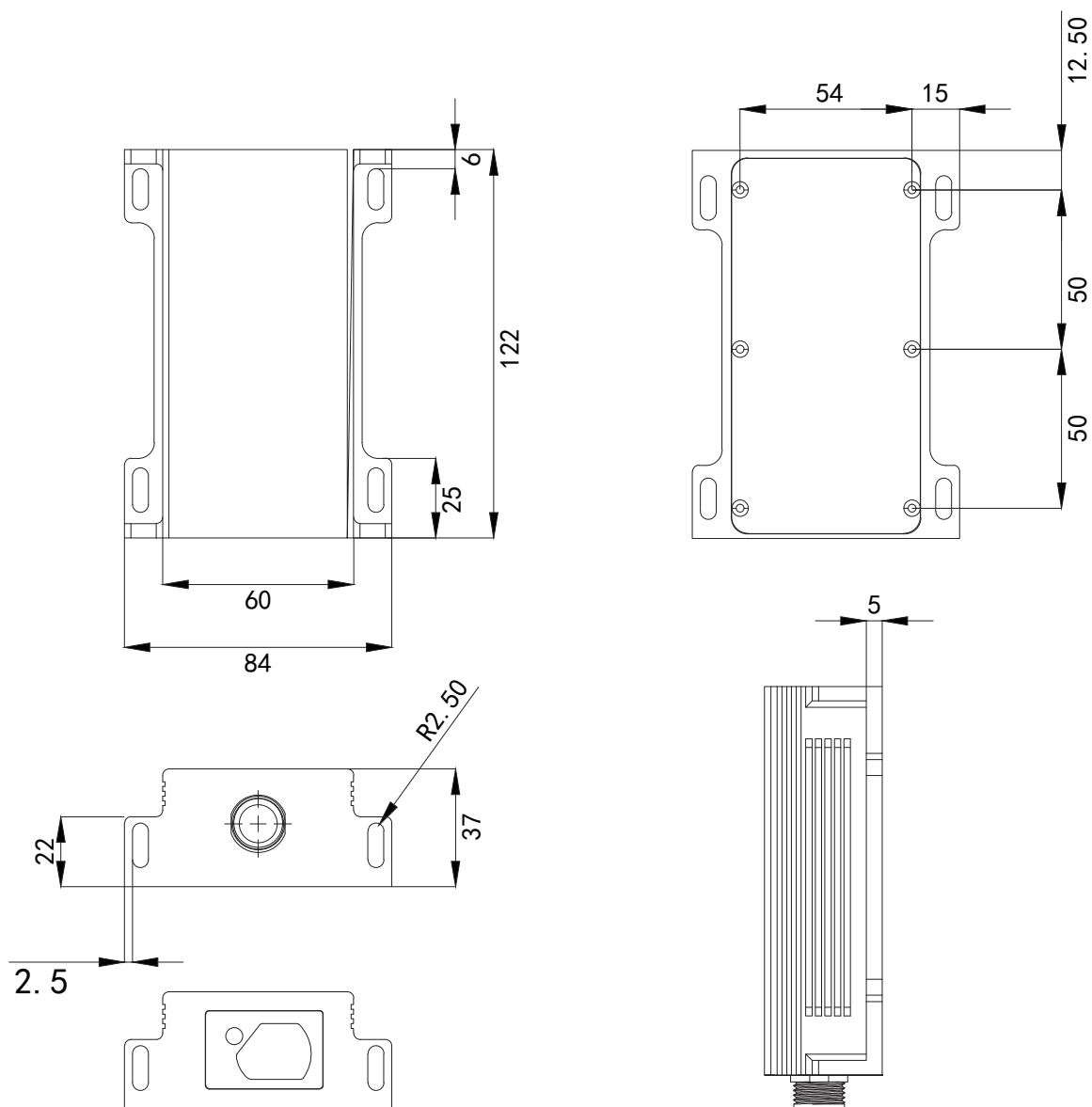
3.Product Parameters

Type	Attribute	Description
Product Performance	Measurement Range	0.03~20m / 0.03~50m (Reflectivity: 1.0, interference light intensity: 3kLux)
	Response Time	0.05~4 seconds (Reflectivity: 1.0, interference light intensity: 1kLux) Applicable with reflectivity of targets
	Accuracy	+/-5mm (0.03~20m) +/-10mm (0.03~50m)
	Frequency	3Hz/10Hz/20Hz (Optional)
Optical Parameters	Laser Wavelength	610-690nm (510-550nm optional)
	Laser Type	Class II (IEC 60825-1) Visible red (green optional)
	Laser Power	<1mW
	Spot Size	Diameter<8mm@10m Diameter<20mm@20m Diameter<40mm@40m
Electrical Parameters	Supply Voltage	15~24V DC
	Current Consumption	≤150mA@24V DC
	Output Type	Analog: Current ... 4-20 mA
Communication Interface Supported	Optional: RS485; RS232; USB	
Others	Housing Material	Aluminium Alloy
	Connection Type	6-pin aviation connector
	IP Rating	IP67
	Operating Temperature	0~50°C
	Weight	440g

4.Dimensions

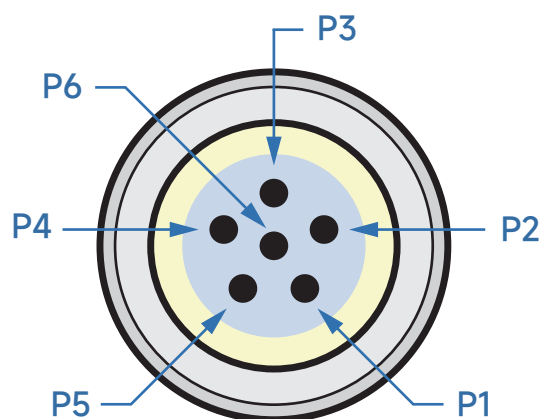


Module Overview



Module Structure Dimensional Diagram

5.Pin Description and Wiring Diagram



No.	Pin	Function
P1	GND	GND (Black)
P2	IOUT	4-20mA current output interface (Green)
P3	EN	Voltage output enable pin, active high(3.3V), low level off, no connection default open (Yellow)
P4	NC	NC
P5	+24	+15~24V power input (Red)
P6	NC	NC

6.Setting the Sensor

1.Connection Procedure

Insert the 4-wire cable's aviation male connector into the module's 6-pin aviation female socket.

Connect the 24V power supply.

Wire the load in series between IOOUT and GND terminals.

2.Power-Up Sequence

Upon power-on, laser is on confirming successful initialization.

LDJ-P7(4-20mA) automatically enters continuous ranging mode.

3.Output Measurement

After successful distance measurement, the module converts results to current output.

Measure output current between IOOUT and GND pins.



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Chengdu Meskernel Integrated Technology Co., Ltd.