



## Laser Displacement LD Series

- ▶ Aluminum case, strong structure
- ▶ Slim and small, easy to assemble
- ▶ High precision, average time setting
- ▶ IP67 and CE certification

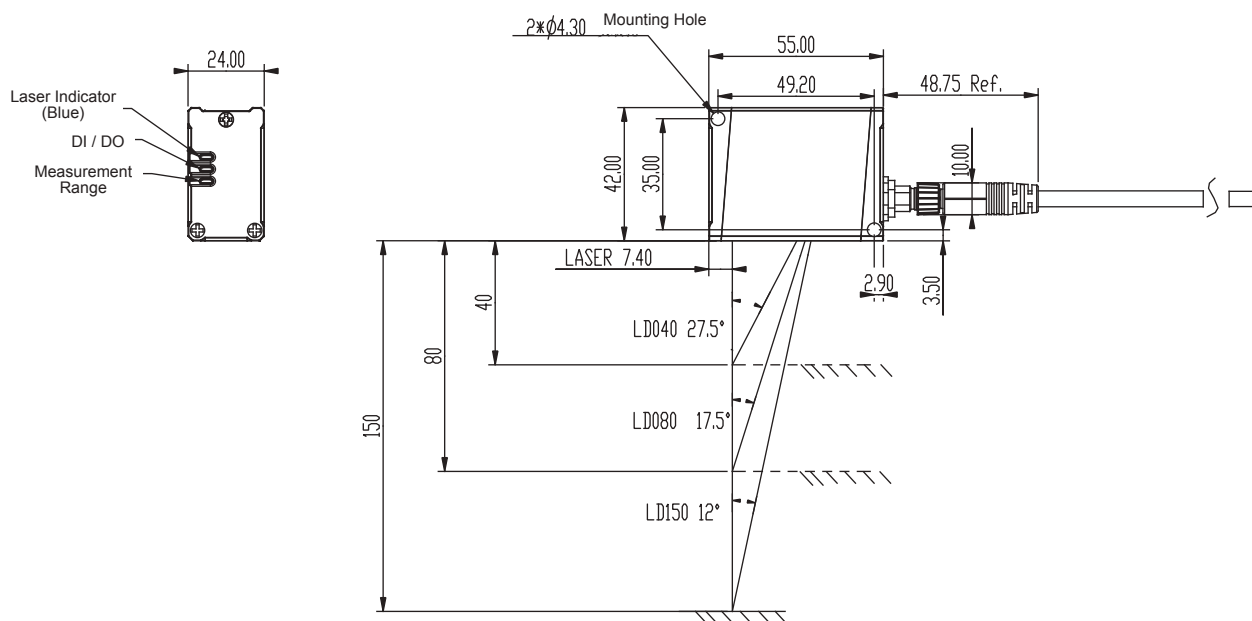


Model Name	Sensing Distance	Repeatability	Interface
LD-040N	30 to 50 mm	2 μm*	Digital I/O / MODBUS Communication (RS-485)
LD-080N	55 to 105 mm	5 μm	Digital I/O / MODBUS Communication (RS-485)
LD-150N	90 to 210 mm	15 μm	Digital I/O / MODBUS Communication (RS-485)

\* For an average count of 100. The value is  $\pm 2 \mu\text{m}$  for an average count of 100 (Sensing objective: white ceramic substrate).

## Dimensions

Unit : mm



## Specifications

Laser Displacement			
Sensing Method	Triangulation		
Model Name	LD-040N	LD-080N	LD-150N
Reference Distance	40 mm	80 mm	150 mm
Measurement range	± 10 mm	± 25 mm	± 60 mm
Interface	Digital IO / MODBUS RS-485	Digital IO / MODBUS RS-485	Digital IO / MODBUS RS-485
	RS-485		
Light Source	Laser CLASS 2		
Input Voltage	12 ~ 24 V <sub>DC</sub> ± 10%		
Repeatability*	2 μm	5 μm	15 μm
Linearity	± 0.1%	± 0.1%	± 0.1%
Sampling Rate	1 ms		
Indicator	Laser ON: blue, Measurement range: green, Out of measurement range: orange, DO: yellow, DI: red		
Protection Circuit	Protection against reverse power connection, output overcurrent, power supply surge, output surge		
Operating Temperature	0 °C ~ 50 °C		
Storage Temperature	-20 °C ~ 75 °C		
Ambient Humidity	30 ~ 85%		
Enclosure Rating	IP67		
Ambient Light Resistance	5,000 lux or less		
Vibration Resistance	10 ~ 55 Hz, 1.5 mm, 3 axes for 2 hours		
Insulating Resistance	20 MΩ or more (500 V <sub>DC</sub> )		
Withstand Voltage	1,000 V <sub>AC</sub> 50 / 60 Hz 1min		
Certifications	CE		
Materials	Optical window: Glass; Case: Aluminium; Cable: PVC		
Cables	M8 Connector (8 Pin)		
Dimensions	55 × 42 × 24 mm		
Weight	113 g		

\* For an average count of 100. The value is ±2 μm for an average count of 100 (Sensing objective: white ceramic substrate).

## Input / Output Circuits

Pin	Color	Definition
1	Brown	+24V
2	Blue	PGND
3	Pink	DI
4	White	DO
5	Red	485-D+
6	Yellow	485-D-
7	Grey	485-GND
8	Green	FG

