

# IMS

DSA- □□□□



Triangulation based Laser Distance Sensor

## INSTRUCTION MANUAL

### ! WARNING

Thank you for selecting IMS product. This sheet primarily describes precautions required in installing and operating the product. Before operating the product, read the sheet thoroughly to acquire sufficient knowledge of the product. For your convenience, keep the sheet at your disposal.

### ! CAUTION

Failure to follow these instructions may result in serious injury or death :  
Fail-safe device must be installed when using the unit with machinery that may cause serious injury or substantial economic loss. (e.g. nuclear power control, medical equipment, ships, vehicles, railways, aircraft, combustion apparatus, safety equipment, crime/disaster prevention devices, etc.)

Failure to follow these instructions may result in product damage :

- Do not use this unit over rated voltage ;
- Do not use this unit where there is flammable or explosive gas ;
- Do not use this unit where there is vibration or impact ;
- In cleaning the unit, do not use water or an oil-based detergent.

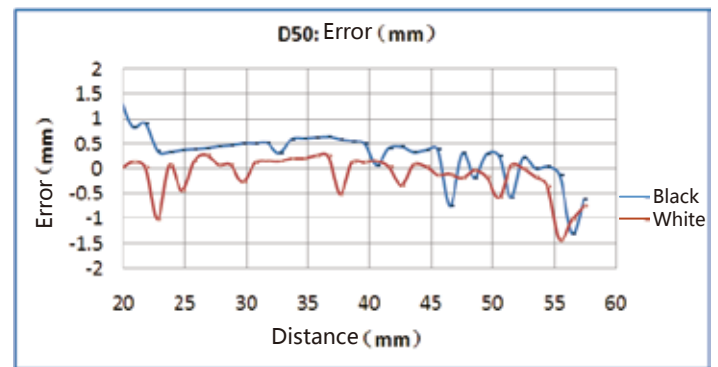
### ■ Features

- Digital output with High accuracy
- I2C or RS485 Interface
- High accuracy even with different target colors (white/black)
- High performance CMOS Integrated Photo ASIC
- Power on delay to prevent false trigger
- Rejection of ambient/ DC light/ interference using built-in digital filter
- Power supply reverse polarity protection

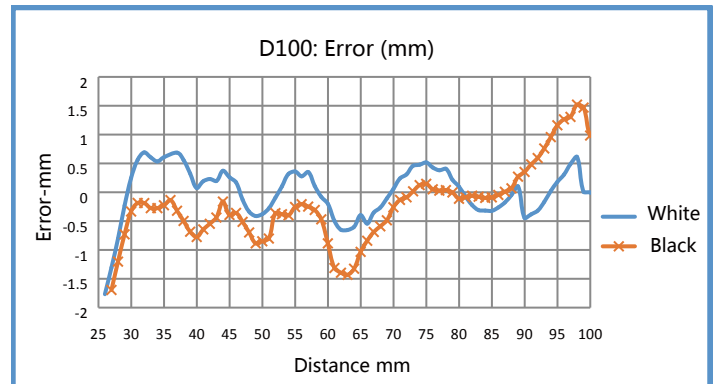
### ■ Specifications

Model	DSA-D50	DSA-D100
Sensing distance	20~50mm	30~100mm
Accuracy	±1.5mm	±2.5mm
Black/white error	±2mm	±3mm
Standard sensing object	Opaque object	
Minimum detectable object	2mm	
Light source	Laser (infrared)	
Power supply	3.5~7VDC	
Current consumption	20mA Max.	
Circuit protection	Power supply reverse polarity protection	
Response time	15ms	
Output	I2C (output distance value)	
Ambient illumination	Incandescent lamp: 3,000lx Max.; Sunlight: 11,000lx Max.	
Ambient temperature	Operation: -20 ~ 55 °C; storage: -25 ~ 65 °C (with no icing and condensation)	
Weight	Approx. 4.5g	

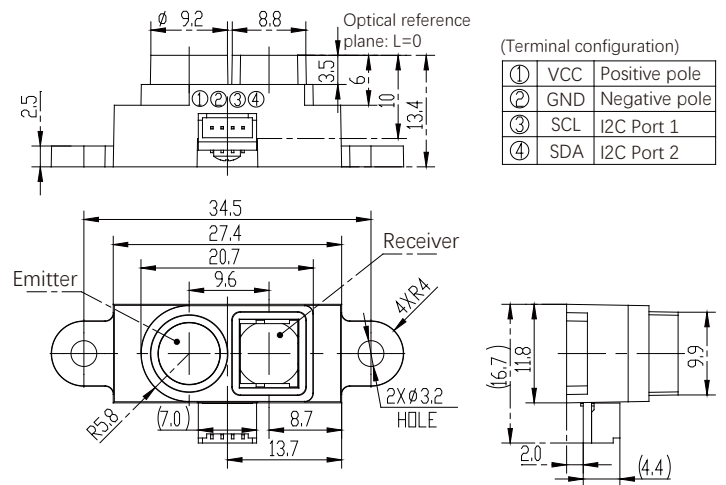
### ■ Typical Measurement Error vs Distance for DSA-D50



### ■ Typical Measurement Error vs Distance for DSA-D100



### ■ Dimension



### ■ Main product

- Photoelectric sensor
- Light curtain
- Proximity sensor
- Pressure sensor
- Counting sensor
- Distance sensor
- Liquid level sensor
- Label sensor
- Hall sensor
- Pressure meter
- Counting machine
- Dust sensor

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