

TF02-Pro-W-485 LiDAR (Mid-range distance sensor)

1. Product Description

TF02-Pro-W-485 is a single-point ranging LiDAR based on TF02-W upgrade. The performance and accuracy of different reflectivity are improved, it can achieve stable, accuracy, sensitive and high frequency range detection:

- The range up to 25 meters
- High frame rate(up to 1000Hz)
- Automatic dust removal

Application:

- Material level detection



2. Technical Specifications and Parameters

Table 1 Main characteristic parameters of TF02-Pro-W-485

Parameter Name		Value
Product performance	Operating Range	0.1~25m@90% reflectivity 0.1~12m@10% reflectivity 0.1~25m@90% reflectivity(100Klux) 0.1~12m@10% reflectivity(100Klux)
	Accuracy ¹	±6cm (0.1~6m) , ±1% (6~25m)
	Distance Resolution	1cm
	frame rate	100Hz
	Repeatability	1σ: < 2cm (0.1~25m@90% reflectivity)
	Ambient light resistance	100Klux
	Operation temperature	-20~60°C
	Protection Level	IP5X
Optical Parameters	Light source	VCSEL
	Central wavelength	850nm
	FOV	3°
	Photobiological safety	Class 1 (EN60825)
Electrical Parameters	Supply voltage	DC 7~30V
	Average Current	≤200mA@12V
	Power consumption	≤4.8W
	Peak Current	400mA@12V
	Communication interface	RS-485
Other parameters	Dimensions	85x59x43mm (长*宽*高)
	Weight	92g (含连接线)
	Enclosure material	PC/ABS
	Storage temperature	-30~80°C
	Cable length	120cm

¹ Accuracy was calculated based on a standard white board with 90% reflectivity in indoor condition(25°C), changes in conditions may cause errors to increase

3. Product Appearance and Structure

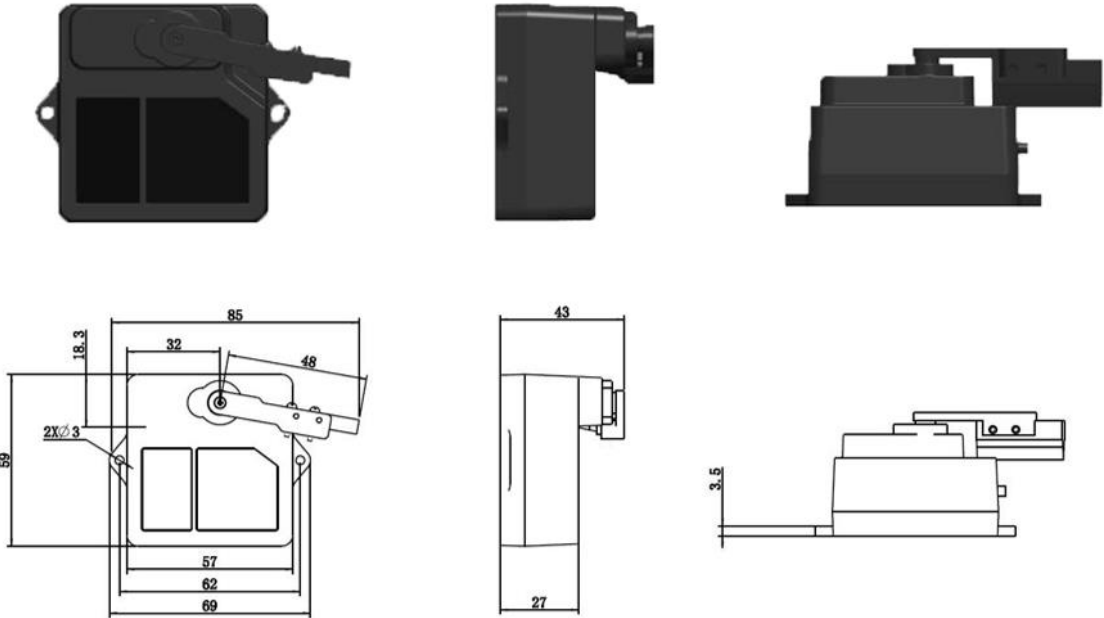


Figure 1 Dimension of TF02-Pro-W-485 (Unit:mm)

4. Communication Interface

Table 2 Communication Interface

Default Baud rate	115200
Data bits	8
Stop bit	1
Parity	无

5. Product Certification



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