TF02-Pro-W-485 LiDAR

TF02-Pro-W-485 is a single-point ranging LiDAR based on the upgraded TF02-Pro-W using ToF (Time of Flight) principle. It has been optimized in communication interface, input voltage and reverse voltage protection, adapted to the needs of industrial scenarios.

Main product features

- ✓ High range
- ✓ Self-cleaning function
- ✓ 7-30V wide range input voltage
- ✓ RS-485 communication interface

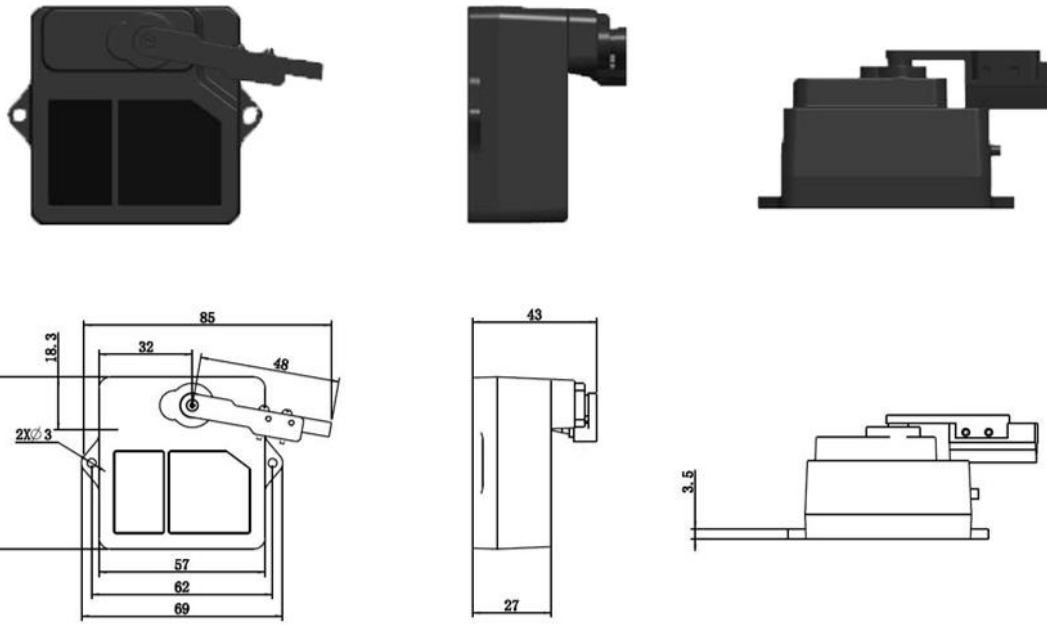
Main application scenarios

- ✓ Level Detection

Product performance		
Operating Range	Indoor 0Klux	Outdoor 100Klux
	0.1m~25m @90% reflectivity [1] 0.1m~12m@10% reflectivity [2]	0.1m~25m @90% reflectivity 0.1m~12m@10% reflectivity
Accuracy[3]	±6cm @（0.1m~6m）；±1% @（6m~25m）	
Distance resolution	1cm	
Frame rate	1Hz~1000Hz（adjustable, default100Hz）[4]	
Repeatability	1σ: ＜2cm（0.1m~25m@90% reflectivity）	
Ambient light immunity	100Klux	
Enclosure rating	IP5X	
Optical parameters		
Photobiological safety	Class 1 （IEC60825）	
Central wavelength	850nm	
Light source	VCSEL	
FoV	3°[5]	
Electrical parameters		
Supply voltage	DC 7V~30V	
Average current	≤200mA@12V	
Power consumption	≤4.8W	
Peak current	400mA@12V	
Others		
Dimension (L×H×W)	85mm×59mm×43mm	
Housing	PC/ABS	
Operating temperature	-20°C~60°C	
Storage temperature	-30°C~80°C	
Weight	92g (with cables)	
Cable length	120cm	

Communication Interface	
RS-485	
Default baud rate	115200
Data bit	8
Stop bit	1
Parity	None

Dimensions



1. The detection range is determined with the standard white board (90% reflectivity) at 25°C.
2. The detection range is determined with the standard black board (10% reflectivity) at 25°C.
3. The accuracy is measured with the standard white board (90% reflectivity) at 25°C.
4. The highest frame rate is 1000Hz, the customized frame rate should be calculated by the formula: 2000/n (n is an integer with ≥ 2).
5. The angle is a theoretical value, the actual angle value has some deviation.
6. Disclaimer：As our products are constantly improving and updating, the specifications of TF02-Pro-W are subjected to change. Please refer to the official website for the latest version.