

# 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

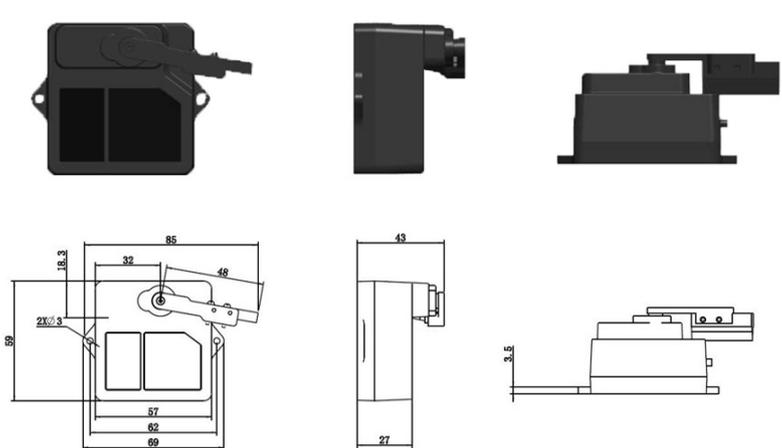
## Main application scenarios

- Level Detection



## SPECIFICATIONS

Parameters		Typical Value	
<b>Product Performance</b>	Operating Range	Indoor 0Klux	Outdoor 100Klux
		0.1m~25m @90% reflectivity <sup>1</sup> 0.1m~12m@10% reflectivity <sup>2</sup>	0.1m~25m @90% reflectivity 0.1m~12m@10% reflectivity
	Accuracy <sup>3</sup>	±6cm @ (0.1m~6m) ; ±1% @ (6m~25m)	
	Distance resolution	1cm	
	Frame rate	1Hz~1000Hz (adjustable, default100Hz) <sup>4</sup>	
	Repeatability	1σ: < 2cm (0.1m~25m@90% reflectivity)	
	Ambient light immunity	100Klux	
	Enclosure rating	IP5X	
<b>Optical parameters</b>	Photobiological safety	Class 1 (IEC60825)	
	Central wavelength	850nm	
	Light source	VCSEL	

Parameters		Typical Value
	FoV	3° <sup>5</sup>
<b>Electrical parameters</b>	Supply voltage	DC 7V~30V
	Average current	≤200mA@12V
	Power consumption	≤4.8W
	Peak current	400mA@12V
<b>Others</b>	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
<b>Communication interface</b>	RS-485	
	Default baud rate	115200
	Data bit	8
	Stop bit	1
	Parity	None
<b>Dimensions</b>		

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  $\geq 2$ ).

5. The angle is a theoretical value, the actual angle value has some deviation.

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.