

TF02-i LiDAR

TF02-i is an updated single-point ranging LiDAR based on TF02-Pro. It has been optimized in communication interface and input voltage, making it satisfy different industrial applications. The product is based on the ToF (Time of Flight) principle and provides stable, accurate and reliable ranging performance.



Main Features

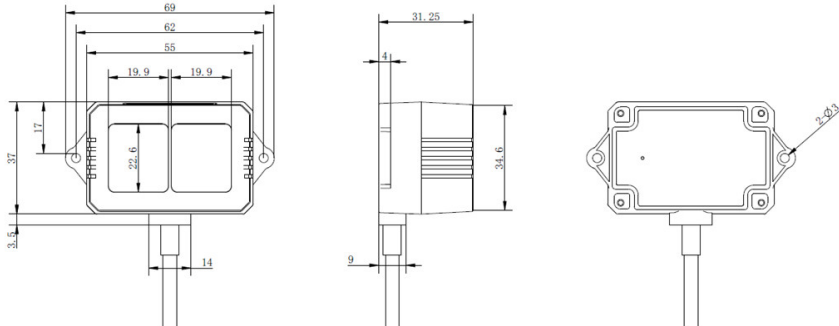
- Wide range input voltage
- CAN/RS-485 interface

Typical Applications

- Robot
- Intelligent traffic
- Intelligent device
- UAV

SPECIFICATIONS

Parameters		Typical Value	
Product performance	Operating Range	Indoor 0Klux	Outdoor 100Klux
		0.1m~40m @90% reflectivity ¹ 0.1m~13.5m@10% reflectivity ²	0.1m~40m @90% reflectivity 0.1m~13.5m@10% reflectivity
	Accuracy ³	±5cm @ (0.1m~5m) ; ±1% @ (5m~25m)	
	Distance resolution	1cm	
	Frame rate ⁴	1Hz~100Hz (adjustable, default 100Hz)	
	Frame rate	1...1000Hz adjustable (default 100Hz)	
Optical parameters	Photobiological safety	Class 1 (IEC60825)	
	Central wavelength	850nm	
	Light source	VCSEL	
	FoV ⁵	3°	
Electrical parameters	Supply voltage	DC 7V~30V	
	Average current	≤70mA @12V	
	Power consumption	≤0.85W @12V	

Parameters		Typical Value		
	Peak current	100mA		
Others	Dimension (L×H×W)	69mm×40.5mm×31.5mm		
	Housing	ABS/PC/PMMA		
	Operating temperature	-20°C~60°C		
	Storage temperature	-30°C~80°C		
	Weight	60g (with cables)		
	Cable length	70cm		
Communication Interface	RS-485		CAN	
	Interface parameters	Default value	Interface parameters	Default value
	Baud rate	115200	Baud rate	250kbps
	Data bit	8	Receiving ID	0x00000003
	Stop bit	1	Transmitting ID	0x00000003
	Parity	None	Frame Format	Standard frame
Dimensions				

- 1.The detection range is determined with the standard white board (90% reflectivity) at 25°C, changes in conditions may cause changes in measurement results.
 - 2.The detection range is determined with the standard black board (10% reflectivity) at 25°C, changes in conditions may cause changes in measurement results.
 - 3.The accuracy is measured with the standard white board (90% reflectivity) at 25°C, changes in conditions may cause changes in measurement results.
 - 4.The highest frame rate is 100Hz, the customized frame rate should be calculated by the formula: $200/n$ (n is an integer with ≥ 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-i are subjected to change. Please refer to the official website for the latest version.