

## TFmini-i LiDAR Module

### 1 Description

TFmini-i is an updated single-point ranging LiDAR based on TFmini-S. It has been optimized in communication interface, input voltage and reverse protection, making it meet different industrial applications. Main product features are as following:

- 7-30V wide range input voltage
- Reverse protection
- CAN/RS485 interface

## 2 Specifications

Table 1 Specifications of TFmini-i

Parameters		Value
Product performance	Operating range	0.1m~12m@90% reflectivity 0.1~7m@10% reflectivity 0.1m~12m@90% reflectivity ( 70Klux ) 0.1~7m@10% reflectivity ( 70Klux )
	Accuracy	$\pm 6\text{cm}@ ( 0.1\text{-}6\text{m} )^1$ $\pm 1\%@ ( 6\text{m}\text{-}12\text{m} )$
	Distance resolution	1cm
	Frame rate	100Hz
	Ambient light immunity	70Klux
	Operation temperature	-20°C~60°C
	Enclosure rating	IP65
Optical parameters	Light source	VCSEL
	Central wavelength	850nm
	Photobiological safety	Class1 ( EN60825 )
	FOV	2°
Electrical parameters	Supply voltage	7~30V
	Average current	$\leq 65\text{mA}@12\text{V}$
	Power consumption	$\leq 0.8\text{W}@12\text{V}$
	Peak current	100mA@12V
	Communication interface	RS-485      CAN
Others	Dimension	50mm*34mm*41mm(L*W*H)
	Shell material	PC/ABS/PMMA
	Storage temperature	-30°C~75°C
	Weight	52g
	Cable length	70cm

<sup>1</sup> The accuracy is measured at temperature of 25°C with white board (90% reflectivity). The error may be increased if condition changes;

### 3 Dimension

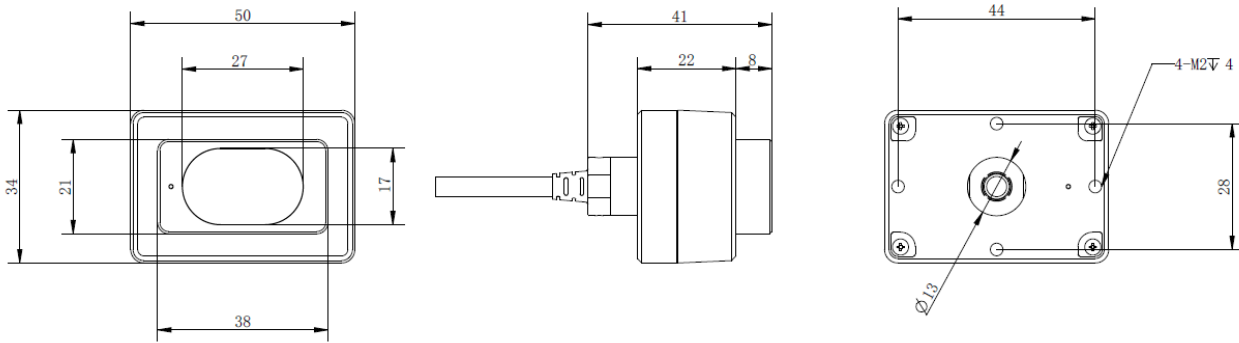


Figure 1 Dimension of TFmini-i (Unit: mm)

### 4 Physical Interface

Table 2 Communication Interface—RS485

<b>Baud rate</b>	115200
<b>Data bits</b>	8
<b>Stop bit</b>	1
<b>Parity</b>	None

Table 3 Communication Interface—CAN

<b>Baud rate</b>	250kbps
<b>Receive ID</b>	0x00000003
<b>Send ID</b>	0x00000003
<b>Frame format</b>	Standard frame



## 5 Configurable Parameters

Table 4 Configurable parameters example

Parameters	Description	Default setting
Frame rate	Adjustable,1~1000Hz	100Hz
Baud rate	Adjustable	/
Reset default	Reset all the settings to factory settings	/

PS: Refer to user manual for more information

## 6 Certifications



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