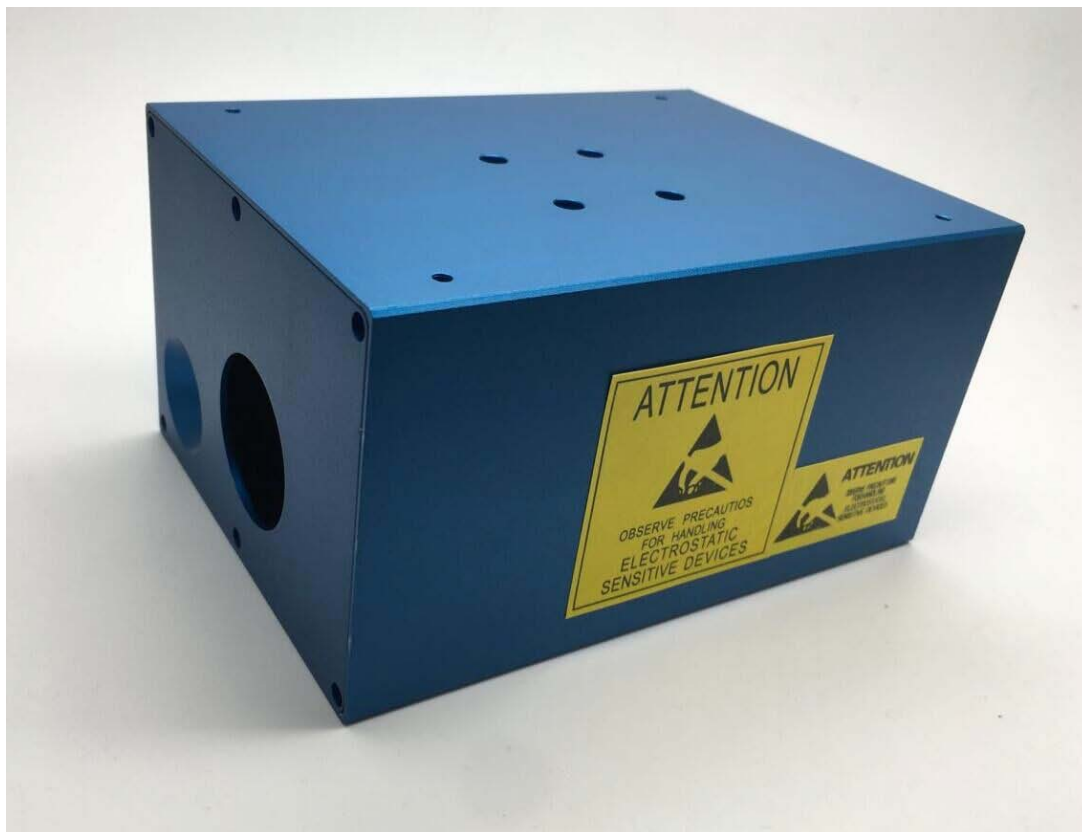


FST-10km Laser Distance sensor



Specifications	
Product Name	10000M Laser Distance Sensor
Type	FST-10km
Measurement Range	20-10000M
Measurement method	Back scatter mode , monolithic transmitter and detector
Measurement Accuracy	$\pm 0.5m$
Measurement time	10-20times per minute (Max Frequency 1Hz)
Laser Wavelength	Wavelength 1064nm invisible laser
Laser Energy	$\cong 5mj$
Laser Grade	III
Input Voltage	12VDC
Communication interface	Digital output: RS232 or RS485
Laser Life	≥ 50000 times
Spot Size	50mm (1000M)

Maximum blind area	150m
Measurement Mode	Continuous Measurement, Single Measurement, Command Control
Operation Temp.	-20--- +60℃
Protection Grade	IP65
Dimensions	60*90*132mm
Weight	0.9kg
BAUD RATE	9600bps
The material of the enclosure	A body of Aluminum alloy

10KM Laser Range Finder

USER MANUAL (RS485 Communication Port)

RS485 output user manual

Power	Red line (Positive) 12VDC	Black line (GND)	
RS485	Green Line (485A)	Yellow line (485B)	

Baud Rate: 9600 Stop Bit: 1 Transmission Digit: 8bit Ode-Even Check: No

Ranging Communication Format

Upper Computer Transmission: A0 0x04 0x81 0x0D 0xAF

0XA0	0x04	0x81	0x0D	0xAF
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The first bit is the starting bit

The second bit is command way

The third and fourth bit is control of command

0xAF the fifth bit is fixed value

The range finder begin ranging after succeeding in receiving data verification,

Data is returned at the end of ranging

0XA5	0X0X	0XXX	0XXX	0XXX	0XAF
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First target value

Among them:

The first is the starting bit

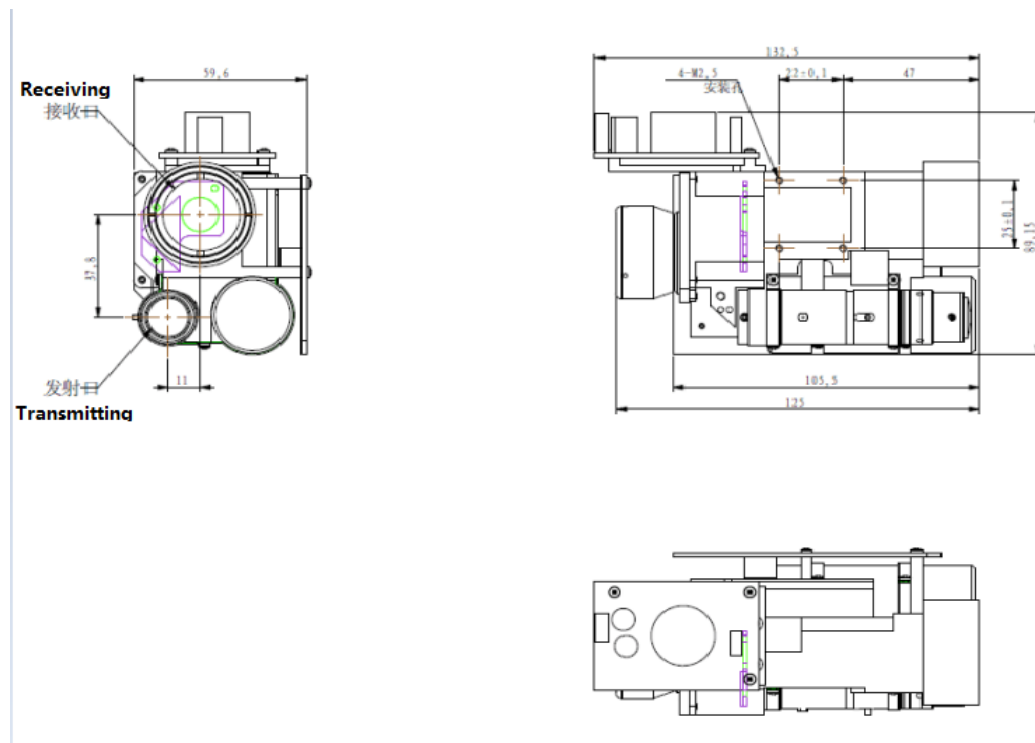
The second bit is command way: 0X00--> Echo free, 0X01-->Single target. The third,

fourth and fifth as first target value (From high to low)

For example: distance value: 1234.5m, it shows 0X01、 0X23、 0X45

The sixth is fixed value 0xAF

Connecting RS232/RS485 converter, use serial port assistant as below to set connection command for ranging and display of distance value.



NOTICES:

- 1.The eye or human body is strictly prohibited from target ranging !
- 2.It is prohibited to measure glass or close reflector ,so as to avoid strong reflection damage ranging module !
3. When ranging after plug in, touch distance measurement module is not allowed.