LoRa Sensor (TAG09) Configuration Manual V2.2

1. USB RS232 Cable



Please use the RS232 special configuration cable which is provided by our company to connect the computer to configure the sensor.

2. Steps

1) PL-2303 driver is for RS232 configuration cable,



Please install

in windows systems

(XP/Vista/Win7/Win8/Win10)

- 2) Connect the configuration cable to the computer.
- 3) After the device is installed successfully, return to the desktop, select "My Computer"-> right-click -> choose "Manager"-> "System Tools" -> "Device

Manager" -> "Ports", and you will find the port which configuration cable is

connected. Prolific USB-to-Serial Comm Port (COM3)



3. Configure Software

- 1) Connect the Sensor to computer through the RS232 configuration cable.
- 2) Run the configuration software * Sensor Configuration Software.exe



3) Connection

A.Confirm that the switch of the sensor is on, if it is on, connect the RS232 configuration line to the sensor and the computer until the green light is always on , and then click "Connect";

B. Confirm that the switch of the sensor is on, if it is off, please turn it to on first, wait for the light off, and then connect the RS232 configuration line to the sensor and the computer until the green light is always on and then click "Connect";

After successful connection, the following image interface will appear (If the sensor is not operated within 1 minute and the green light is off, the sensor will automatically disconnect, and you need to click "connect" again before you can continue to configure the sensor).

 Sensor Configuration Software v1.0.20 		
Device Setting		
Device Information		
211 0 Device JD: 09210004		
Lola Theranceuple Sansor Device Type- TAG09		
Plea Ermware Ver. 2.19		
Disconnect		
For TAG07 series, use USB cable to connect, press t 3seconds, Green Light on, then click Connect;	he button for	
For TAG08 series/TAG09, use USB cable to connect on, then click Connect;	Green Light	
Without operation for 1 minute after connection, Gree it will be automatically disconnected;	in Light off,	
Reading device parameters	COM9,9600	Debug Mode

4) Setting

After successful connection, the sensor will automatically change to the setting interface:

Sensor Co Device	onfiguration Software v1.0.20	
	50(Sensor Type)	-
	T1:	
	02(Setting the interval for sending data)	
	Data sending/storage interval: 1 Minute 03(Setting the Temp&RH threshold)	E
	Enable: Image: Constraint of the shold: Image: Conshold: Image: Conshold: I	
	36(Setting the buzzering alarm)	_
	Open: 42(Setting the Temp&RH calibration)	
	Temperature range: 0 *C	Ŧ
Ready	Read Save	Debug Mode

Set sensor type(50)

Type:

Type of sensor,T1:Yellow is K-type thermocouple,blue is T-type thermocouple,the

default is K-type, T2 is the same as T1

Setting the interval for sending data(02)

Data sending/storage interval: The Sensor data transmission interval X:[1,1440], Unit:Min,default:15

Setting the Temp&RH Threshold(03)

Enable: enable TAG alarm function If sensor's temperature exceeds or falls below the upper and lower limit of the temperature, it will give an alarm.. High temperature threshold: [-55-125], unit:°C, default: 100; Low temperature threshold: [-55-125], unit:°C, default: 0) Data sending/storage interval: Time interval of temperature & humidity alarm[1-1440], unit:min, default: 1

Setting the buzzer alarm(36)

Open: enable buzzer alarm function, the alarm is called for 1 minute by default

Setting Temp&RH calibration (42)

Temperature range:

If the calibration value is added to the temperature, it begins with +; If the calibration value is reduction to the temperature, it begins with -; Can support to one decimal point, unit: °C

Others

Export device log data: The recorded data can be saved and exported to a CSV file via click and the data will be automatically cleared after exporting.

Clear device log data: Click to delete the data recorded of the sensor Reset: click and reset the sensor Read: click and read all the parameters of the sensor Save: click and save all the parameters of the sensor

Debug mode

In debugging mode, sensor parameters can be configured and sensor logs can be viewed by commands.

1) Click to enter debug mode:

 Sensor Configuration Software v1.0.20 	X
Device Setting	
50(Sensor Type)	*
02(Setting the interval for sending data)	_
Data sending/storage interval: 1 Minute 03(Setting the Temp&RH threshold)	E
Enable: High temperature threshold: 100 °C Low temperature threshold: 0 °C Data sending/storage interval: 1 Minute	
36(Setting the buzzering alarm)	
Open: 42(Setting the Temp&RH calibration)	
Temperature range: 0 *C	Ŧ
Ready COM9,9600	Debug Mode

2) In debug mode , the sensor parameters are configured directly by commands.

Note: After writing the commands, please click "send". After sending , please write #DS to save the setting(Please refer to the command list for more detailed)..

Sensor Configuration Software v1.0.20	COLUMN TWO IS	COMPANY TRANSPORT		X
Device Setting				
Debug Mode	Log file address:	E:\我的文件\工作资料\tag09\Sensor Configuration	n Softwarev1.0.20\\Log	s\debug.log
¹ 02,1# СМD:2 Рег:1 СМD ОК				
Commands *02,1#		Sending		Pause
Ready			COM9,9600	Exit debug mode
Sensor Configuration Software v1.0.20	-	TALK ADDE ADDE		
Sensor Configuration Software v1.0.20	-	TACK AND AND -	and some	
Sensor Configuration Software v1.0.20 Device Setting Debug Mode	Log file address:	E:1我的文件\工作资料\tag09\Sensor Configuration	n Software <u>v</u> 1.0.20\\Log	s\debug.log
 Sensor Configuration Software v1.0.20 Device Setting Debug Mode *02,1# CMD:2 Per:1 CMD OK Save CMD OK 	Log file address:	E:\我的文件\工作资料\tag09\Sensor Configuration	1 Software <u>v</u> 1.0.20\\Log	Is\debug.log
Sensor Configuration Software v1.0.20 Image: Debug Mode "02,1# CMD:2 Per:1 CMD OK	Log file address:	E\我的文件\工作资料\tag09\Sensor Configuration	n Software <u>v</u> 1.0.20\\Log	Is\debug.log

3) View the sensor log in debug mode

After 1 minute, the sensor will exit the configuration mode and enter the sensor log mode. Machine data can be viewed, and log reports are stored in the log file.

 Sensor Configuration Software v1.0.20 	-	PROB	-	-		
Device Setting						
Debug Mode	Log file address:	E:\我的文件\J	C作资料\tag0	9\Sensor Configu	uration Softwarev1.0.3	20\\Logs\debug.log
1011p1.21.00						
Temp2:20.8C						
Temp Done						
Packet						
In Queue:09210004_2022/01/11 04:20:59_38_21.0C_20.8C_3.	53∨					
C5 AB C5 AB						
Out Queue!!						
1 00 08 03 40 00 08 03 00						
09210004_2022/01/11 04:20:59_38_21.0C_20.8C_3.53V						
TX:7C 09 21 00 04 38 CB 00 D2 00 D0 4F 03 16 01 0B 04 14 3	в					
Tx Done						
sx127x RX??F0 09 21 00 04 FE 4B 67						
RSSI22-79 75						
						Ļ
Commands		Sendi	ng			Pause
Ready					COM9,960	00 Exit debug mode

4) Click to exit debug mode

Click to exit debugging mode to return to the home page, If the sensor green light is off, it is necessary to click "disconnect" and insert the RS232 configuration cable again.Click the connect when the green light is always on.

 Sensor Configuration Software v1.0.20 	10.01	TACK AND AND	and the second	
Device Setting				
Debug Mode	Log file address:	E:\我的文件\工作资料\tag09\Sensor Configuration	Softwarev1.0.20\\Lo	gs\debug.log
00 AB 00 AB				*
Out Queue!!				
1 00 08 03 40 00 08 03 00				
09210004_2022/01/11 04:20:59_38_21.0C_20.8C_3.53V				
TX:7C 09 21 00 04 38 CB 00 D2 00 D0 4F 03 16 01 0B 04 14 3B				
Tx Done				
sx127x RX??F0 09 21 00 04 FE 4B 67				
RSSI??-79 75				
MCU:3538.89 mV				
REF:1240.00 mV				
NTC: 21.3				
Temp1:20.9C				
Temp2:20.6C				H
				*
Commands		Sending		Pause
Ready			COM9,9600	Exit debug mode

Note: The sensor can only be configured when the green light is always on. The sensor cannot be configured after the green light is off.

DFU

can use the configuration software to upgrade the device firmware

1) Select the bin file and click "Start".

🌸 Sensor Config	guration Software v1.1	0		<u>9423</u>		×
Device S	Setting DFU	Exit				
		Device Firmware U	Jpgrade			
	Upgrade File:	C:\Users\lisa\Downloads\tag08B_TR78M_LoRa_Stand	dard_V2.16.bin Start			
	Tips:Don't close th	program or disconnect the device during the upgrade. Al	fter the upgrade is complete, wait for the device to			
leady			COM3,9600		Debug N	lode
) Firmwar	e upgrade.					
Sensor Config	juration Software v1.1	D		8000		×
Device S	Setting	Exit				

Device Firmware Upgrade

66% Tips:Don't close the program or disconnect the device during the upgrade. After the upgrade is complete, wait for the device to restart before connecting to it.

C:\Users\lisa\Downloads\tag08B_TR78M_LoRa_Standard_V2.16.bin

Start

COM3,115200

Debug Mode

Device Firmware Upgrade

3) Device firmware upgrade successfully.

Upgrade File:

Sensor Configuration Software v1.1.30		9 <u>10</u> 9		×
Device Setting DFU Exit				
Upgrade File: C:UsersVisa Device firmware upgrade successfully! 200% Tips:Don't close the program or disconnect the device during the upgrade. After the upgrade is complete, wait for restart before connecting to it.	Start			
Device Firmware Upgrade	COM3,115200	D	ebug Mo	/de

4) If the device cannot be connected or upgraded due to any abnormal operation during the upgrade, please contact us.