

Wire you still running expensive cable?

IZON®
Wireless Monitoring Solutions

**Eyes On the
process 24/7/365
from anywhere.**



LRT Series

Long Range Wireless Transmitter



Corrosion-Free
Instrumentation Equipment

IZON®

IZON LRT-4000
LoRa Gateway
(single channel)

- ✓ LoRa wireless provides a stable data stream
- ✓ High output RF power provides a transmission distance of 10mi+ (16km) line of site or 2mi+ (3km) industrial environment
- ✓ Multi-interface support RS-485 / 4-20mA or digital input / digital output
- ✓ Programmable data transfer intervals (seconds, minutes, hours)
- ✓ Robust outdoor construction (IP68, NEMA 4X)
- ✓ Analog input (4-20mA)
- ✓ Modbus command for Analog Input / Digital Input / Digital Output / DC Output
- ✓ Digital output support PWM / Latch Mode
- ✓ AUX I/O support remote setup / status inquiry function
- ✓ AES 128 / 256 security encryption



Save Time, Money and Resources by Monitoring Remotely

LoRa is a **Low-Power** and **Long-Range** transmission protocol with anti-interference performance.

4 – 20mA or RS-485 MODBUS RTU's industrial interfaces are available that allow for connection to existing industrial control host (ex. PLC).

Experience easy setup and installation, and anytime, anywhere operation and monitoring with IZON Wireless Gateways.

Keep your eyes on everything remotely.

How It Works



1.888.610.7664



www.calcert.com

sales@calcert.com

LRT Series

Long Range Wireless Transmitter



ICON™ Corrosion-Free
PROCESS CONTROLS Instrumentation Equipment

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Specifications

LRT-4000	
Product Type	Indoor / Outdoor
Air Stream Protocol	LoRa Wireless Protocol
Operating Frequency Range	915MHz
Sensitivity	Up to -136dBm@SF=7 / 10.4K bandwidth
Transmit RF Power	Maximum 2W
Interface	RS-485 x 1 / Analog 4-20mA or Digital Input x 1 / Digital Output x 1
RS-485 Protocol	Modbus RTU
Serial Interface Baud Rate	1200bps / 2400bps / 4800bps / 9600bps / 19200bps / 38400bps / 57600bps / 115200bps / 230400bps
Transmit Encryption	AES 128 / 256 Encryption Function
Analog Input	Analog Input 4-20mA
Digital Input	Digital Input Support High / Low Signal
Digital Output	Digital Output Support PWM / Latch Mode
Operating Temperature	-40°C ~ 85°C -40°F ~ 185°F
Topology	Broadcast / Group / Peer to Peer
Main Unit Dimensions	10 x 10 x 4.8 cm (Does not include antenna and external connect)
Weight	195 g
Enclosure Rating	IP 68 NEMA 4X
Input Power Supply	12V – 36VDC / 1A
Output Power Supply	5V DC / 200mA (Max.)
Power Consumption	24V 15mA @868 / 920MHz receive, 24V 400mA @868 / 920MHz transmit 2W
Special Specification	Flame Retardant



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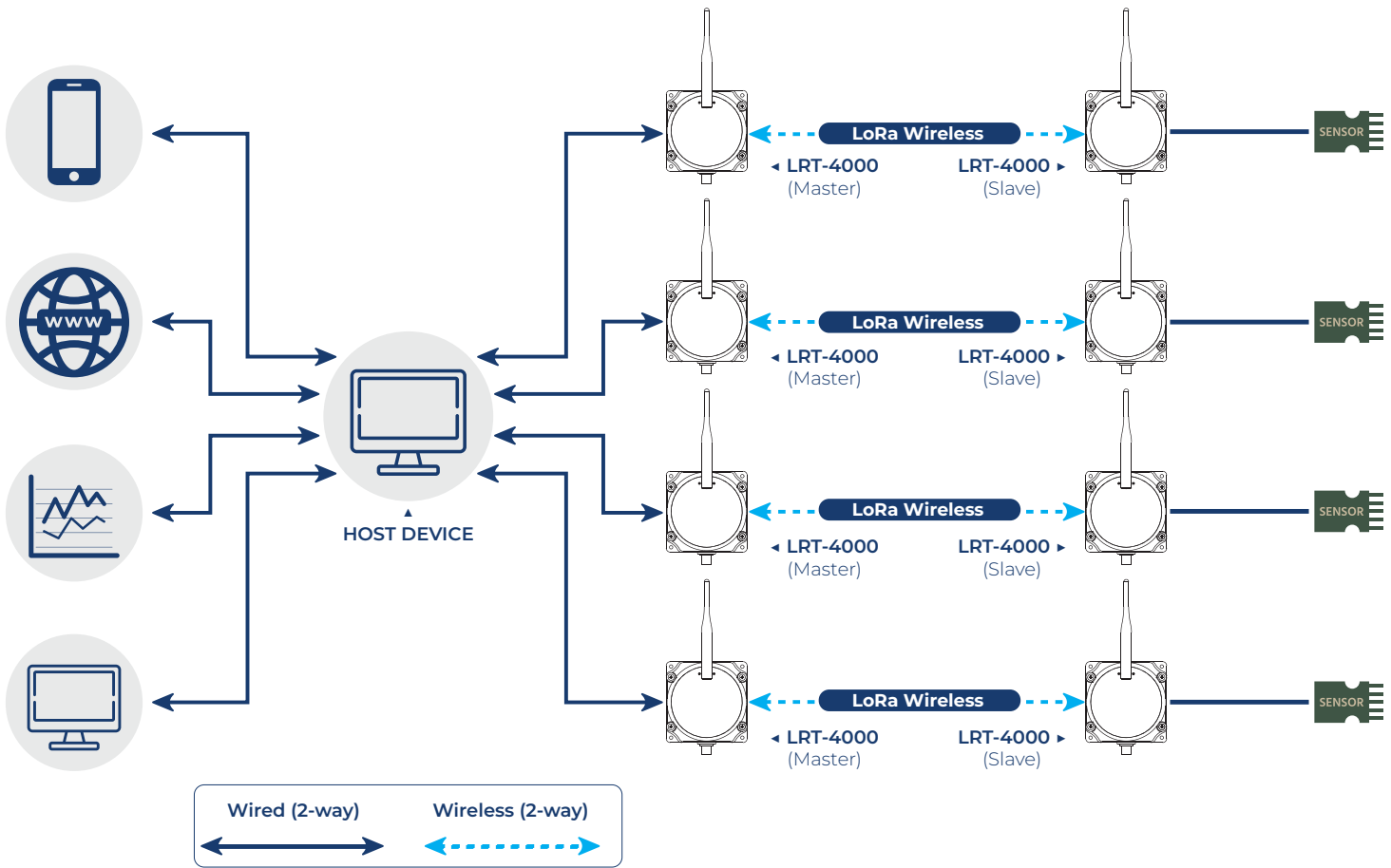
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Long Range Wireless Transmitter

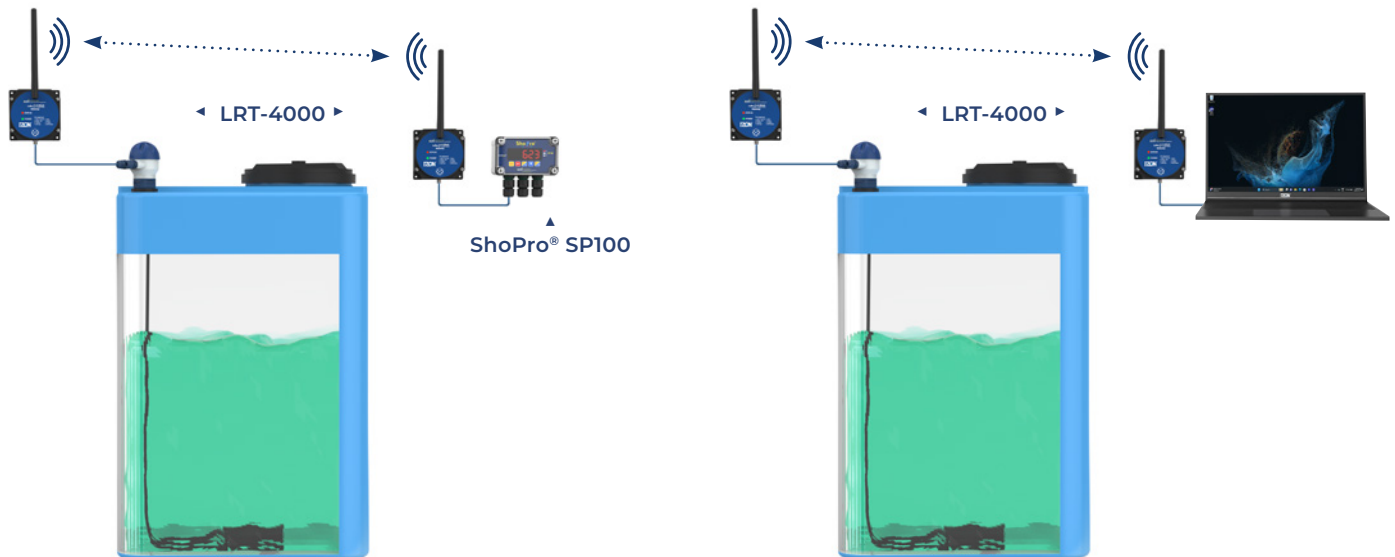


Corrosion-Free
Instrumentation Equipment

LoRa Wireless Intranet



Typical Application



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Long Range Wireless Transmitter



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Instrumentation Equipment



Wiring - M12



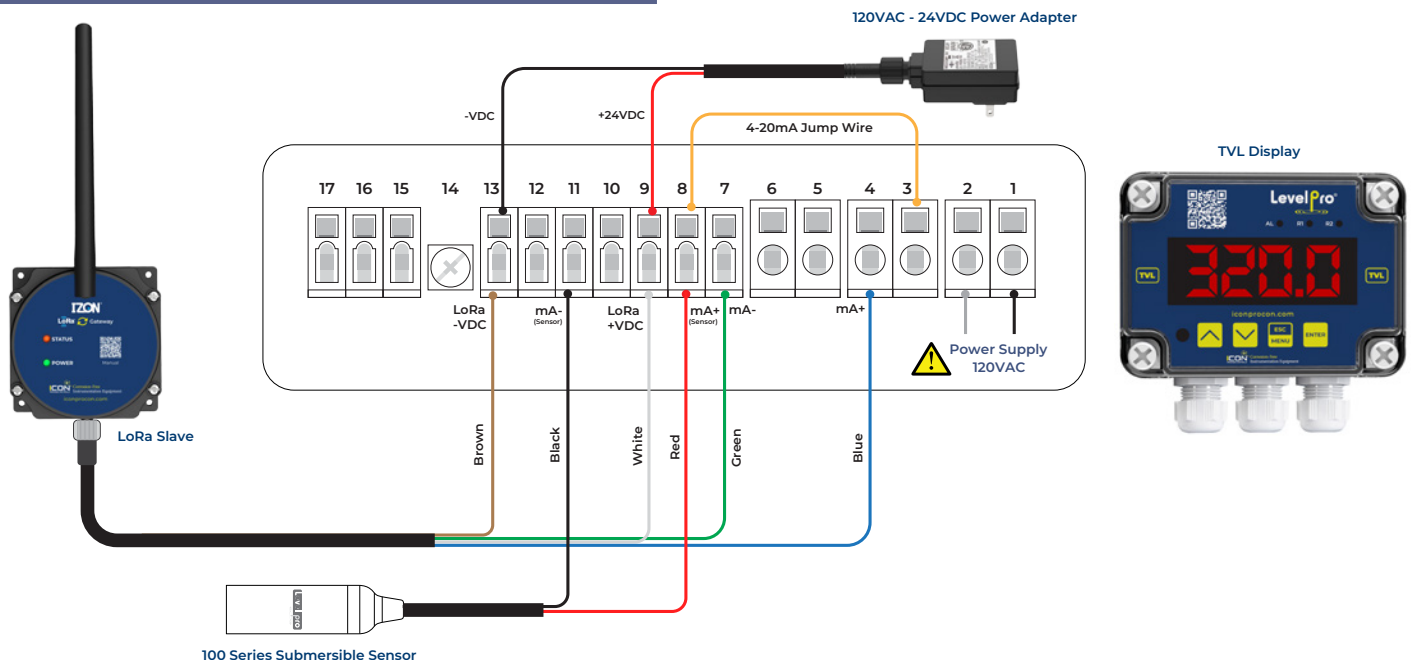
Master (Connects to PLC)

Terminal	Description	Color
1	+VDC (In)	White
2	-VDC (In)	Brown
3	4-20mA+	Blue
4	-VDC (Out)	Orange
5	RS-485 A	Black
6	RS-485 B	Yellow
7	A Input	Green
8	4-20mA-	Grey

Slave (Connects to Sensor)

Terminal	Description	Color
1	+VDC (In)	White
2	-VDC (In)	Brown
3	4-20mA+	Blue
4	-VDC (Out)	Orange
5	RS-485 A	Black
6	RS-485 B	Yellow
7	4-20mA-	Green
8	D Output	Grey

Wiring - LoRa + Sensor + TVL Display



100 Series Submersible Sensor

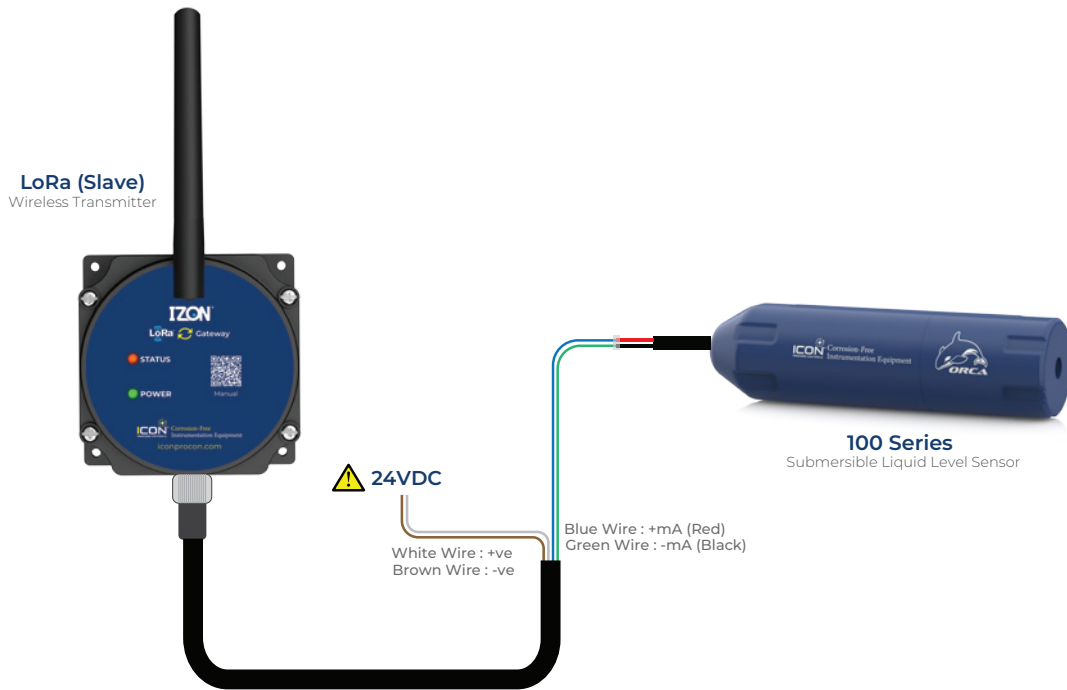
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Wiring – LoRa (Slave) + 100 Series Submersible Sensor



Wiring – LoRa (Slave) + ProScan®3



LRT Series

Long Range Wireless Transmitter

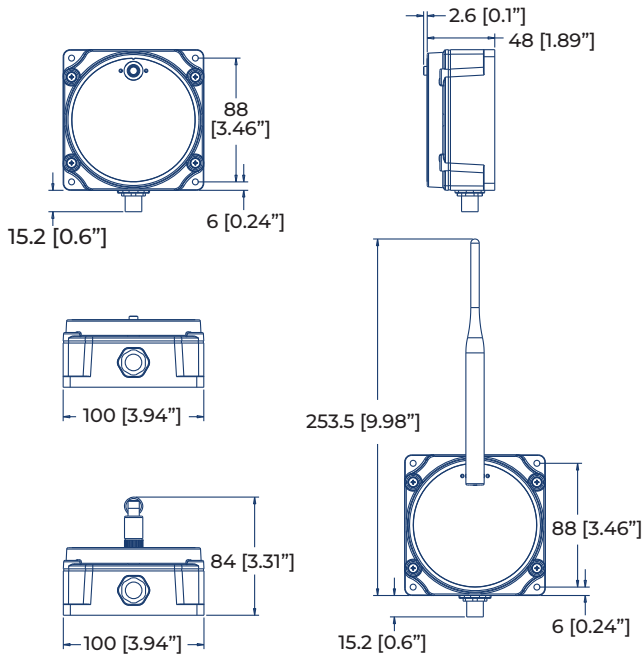


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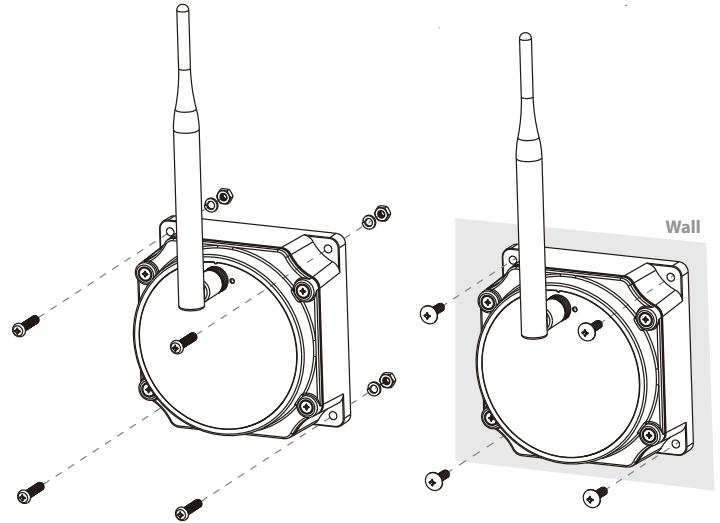
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Dimensions

Unit : mm [in]



Assembly



Package Contents

Content	Quantity
LRT (Master)	1 No.
LRT (Slave)	1 No.
RS-485 USB	1 No.
M12 Cable	2 Nos.



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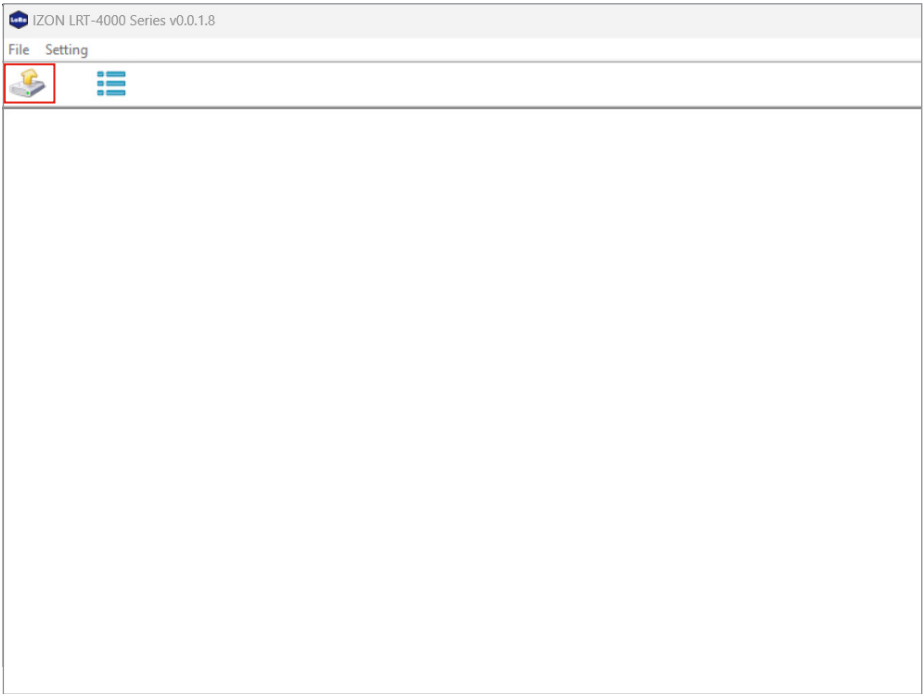


Configuring Data Transfer Interval

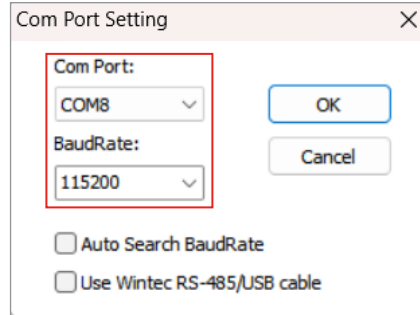


Terminal	Description	Color
1	+VDC (In)	White
2	-VDC (In)	Brown
3	4-20mA+	Blue
4	-VDC (Out)	Orange
5	RS-485A	Black
6	RS-485B	Yellow
7	4-20mA-	Green
8	D Output	Grey

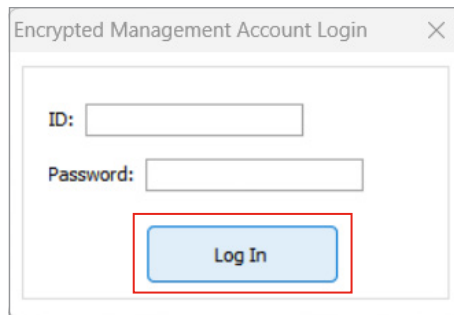
1. Install IZON LRT-4000 Series Configuration Tool
Download the setup file from the below link.
Link : <https://iconprocon.com/wp-content/uploads/2023/11/izon-lrt-4000-series.zip>
2. Open “IZON LRT-4000 Series v0.0.1.8” Configuration Tool. Then click on connection icon as below.



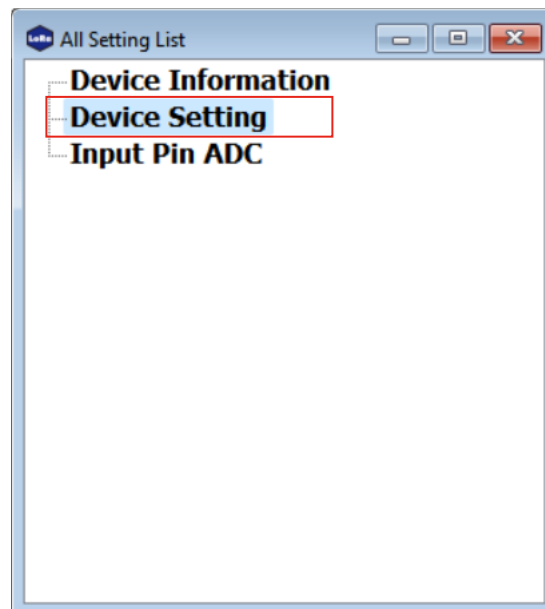
- Choose “COM8” and “Baudrate 115200” and select “OK”
(The power indication on the device will change from green to red during the setting mode.)



- Click “Log In” (Leave ID and Password sections blank)

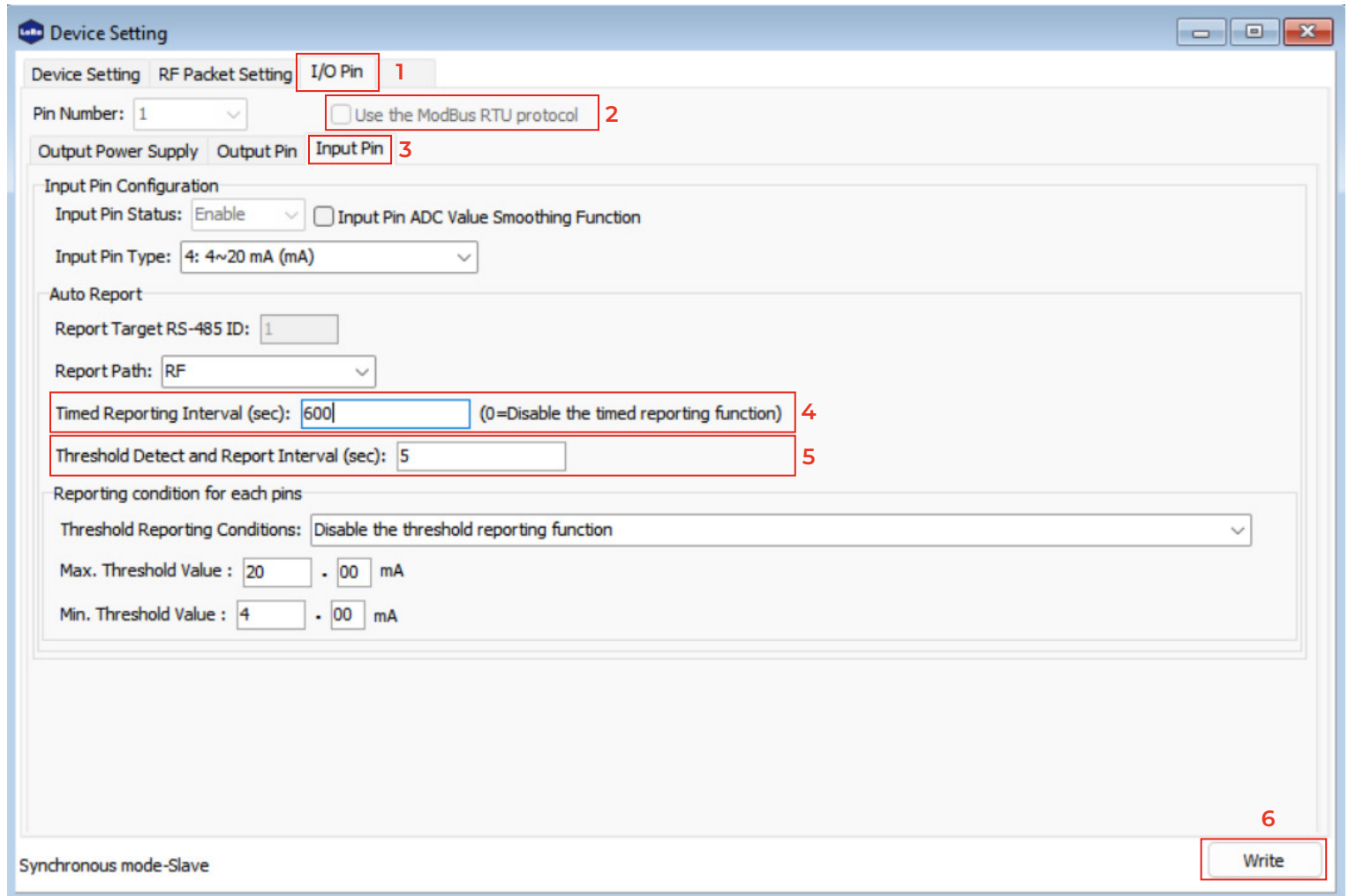


- From All Setting List, choose “Device Setting” function



6. Then follow the below steps

1. Choose “I/O Pin” function.
2. Uncheck “Use the ModBus RTU Protocol”.
3. Select “Input Pin”.



Device Setting

Device Setting RF Packet Setting **I/O Pin** 1

Pin Number: 1 ☐ Use the ModBus RTU protocol 2

Output Power Supply Output Pin **Input Pin** 3

Input Pin Configuration

Input Pin Status: Enable ☐ Input Pin ADC Value Smoothing Function

Input Pin Type: 4: 4~20 mA (mA)

Auto Report

Report Target RS-485 ID: 1

Report Path: RF

Timed Reporting Interval (sec): 600 (0=Disable the timed reporting function) 4

Threshold Detect and Report Interval (sec): 5 5

Reporting condition for each pins

Threshold Reporting Conditions: Disable the threshold reporting function

Max. Threshold Value : 20 . 00 mA

Min. Threshold Value : 4 . 00 mA

Synchronous mode-Slave

Write 6

4. Enter how often you want to send 4-20mA signals. (60 = 60Sec = 1 Min. | 600 = 600sec = 10 Mins.)
5. Enter how often you want to send the signals during threshold condition.
6. Click “Write”. The parameters will be programmed to the device.