LRT Series
Long Range Wireless Transmitter

LoRa

ICON
PROCESS CONTROLS

Corrosion-Free
Instrumentation Equipment™

CO$_2$

IZON®

Wireless Monitoring Solutions

IZON®

LoRa 🔄 Gateway

🔴 STATUS

🟢 POWER   Manual

ICON™ Corrosion-Free
Instrumentation Equipment
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Eyes On the process 24/7/365 from anywhere.

**IZON LRT-4000
LoRa Gateway
(single channel)**

Features

- ⊘ 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 4-20mA | RS-485 (Coming Soon)
- ⊘ Programmable data transfer intervals (seconds, minutes, hours)
- ⊘ Robust outdoor construction (IP68, NEMA 4X)
- ⊘ Analog input (4-20mA)
- ⊘ AUX I/O support remote setup / status inquiry function
- ⊘ AES 128 / 256 security encryption.
- ⊘ LED Indicators for Power and Operational Status
- ⊘ M12 Quick Connect for Secure and Reliable Connections

IP68 / NEMA 4X Enclosure

Corrosion Resistant Housing

IZON
LoRa ⟳ Gateway

● STATUS

● POWER

Manual

ICON Corrosion-Free Instrumentation Equipment
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M12 Quick Connect / Disconnect

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 (coming soon) 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

**S-25000B
(25,000mAh)**

Optional Solar Battery

Sensor

Node

Master

Connected Devices

User

LRT Series
Long Range Wireless Transmitter

Specifications

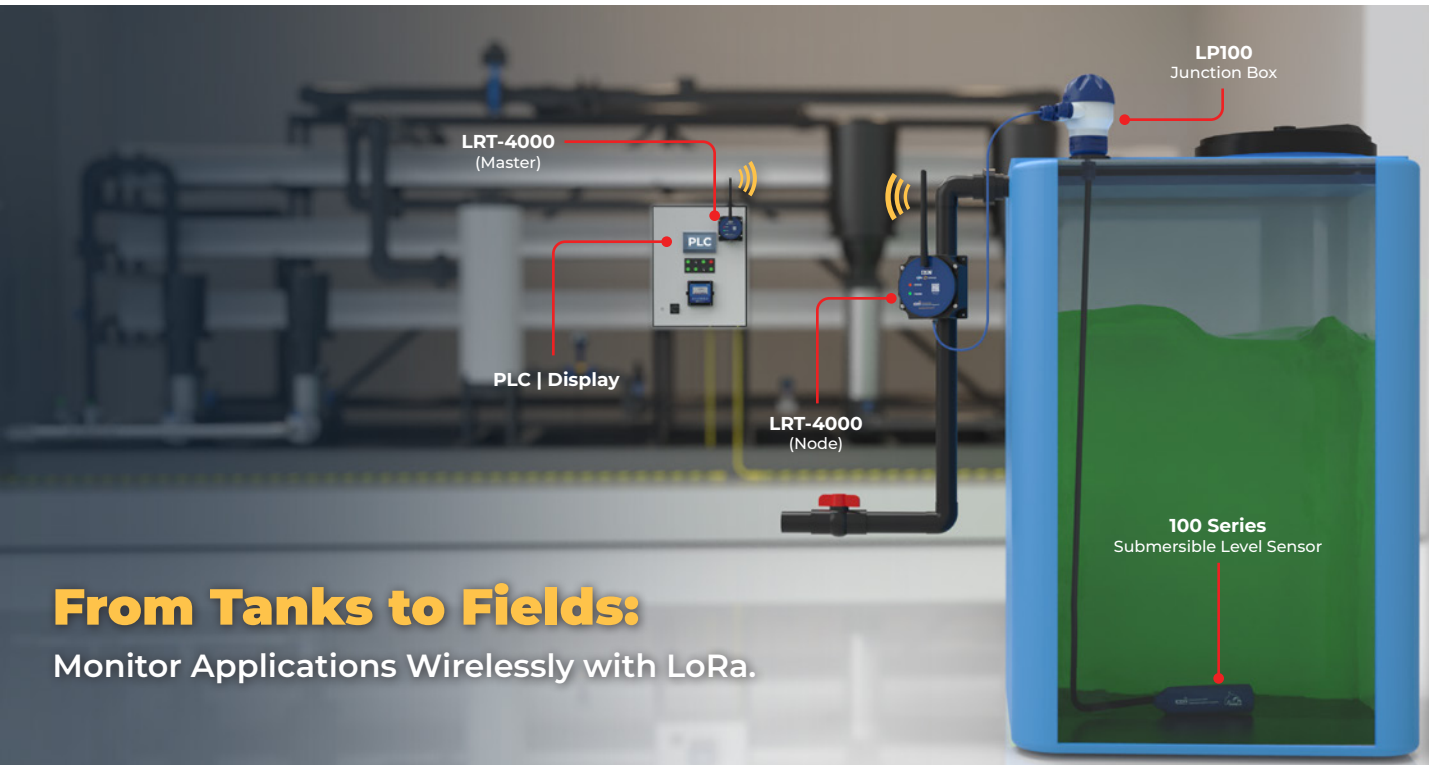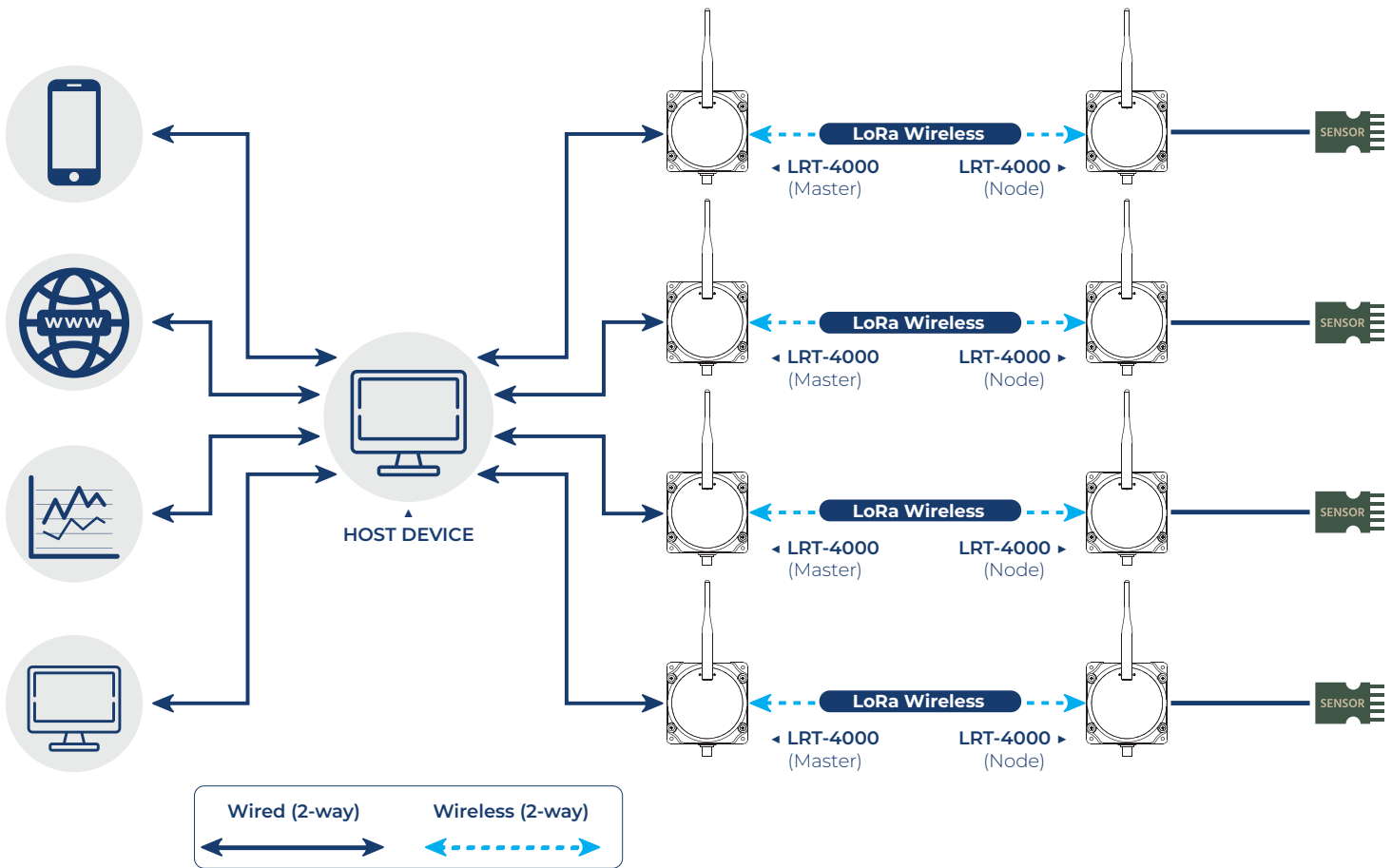| LRT-4000	
Product Type	Indoor / Outdoor
Air Stream Protocol	LoRa Wireless Protocol
Operating Frequency Range	915MHz
Sensitivity	Up to -136dBm@SF=7 / 10.4K bandwidth
Transmit RF Power	Maximum 2W
Interface	Analog 4-20mA	RS-485 (Coming Soon)
Transmit Encryption	AES 128 / 256 Encryption Function
Analog Input	4-20mA
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	IP68	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

2-Way communication
Wired
Wireless

LRT Series
Long Range Wireless Transmitter

LoRa

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LoRa Wireless Intranet

HOST DEVICE

LoRa Wireless

◄ LRT-4000 (Master)   LRT-4000 ► (Node)

SENSOR

Wired (2-way)   Wireless (2-way)

LP100
Junction Box

LRT-4000
(Master)

PLC

PLC | Display

LRT-4000
(Node)

100 Series
Submersible Level Sensor

From Tanks to Fields:
Monitor Applications Wirelessly with LoRa.

LoRa

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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
7	A Input	Green
8	4-20mA-	Gray

Node (Connects to Sensor)

Terminal	Description	Color
1	+VDC (In)	White
2	-VDC (In)	Brown
3	4-20mA+	Blue
4	-VDC (Out)	Orange
7	4-20mA-	Green
8	D Output	Gray

Wiring – LoRa (Master) + TVL Display

120VAC - 24VDC Power Adapter

-VDC   +24VDC

TVL Display

17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

LoRa -VDC   mA-   LoRa +VDC   mA+

Power Supply 120VAC

LoRa (Master)

Brown   Gray   White   Blue

LoRa

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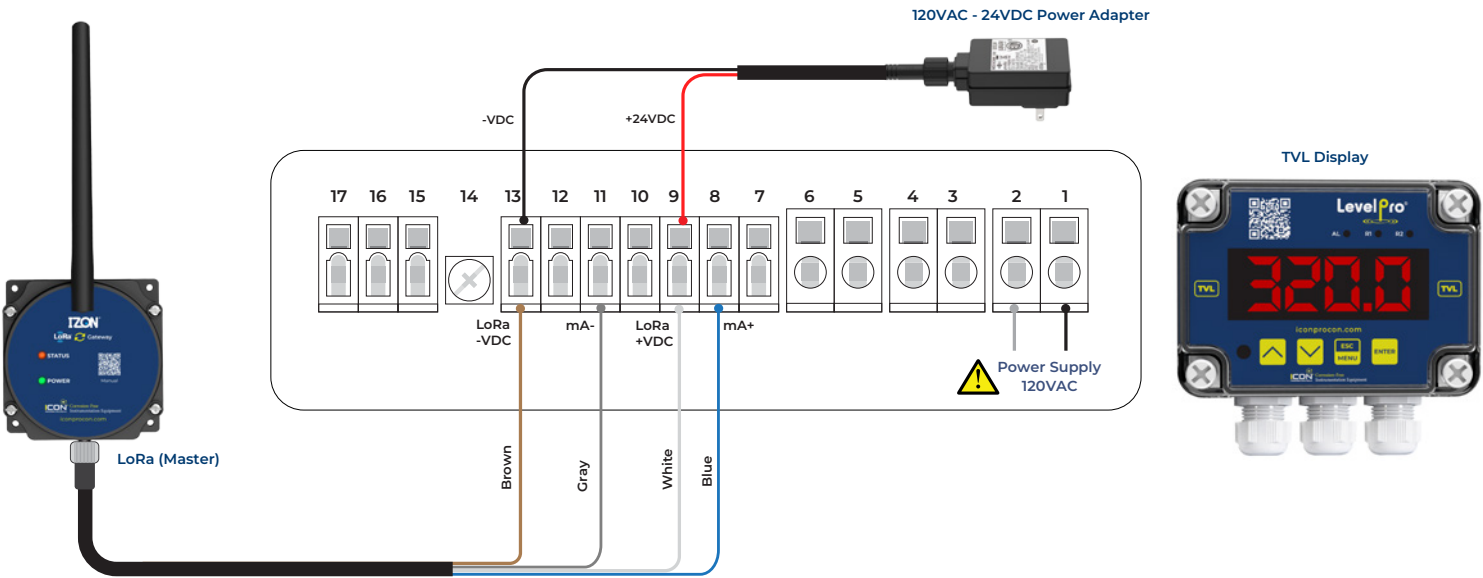
Wiring – LoRa (Node) + 100 Series Submersible Sensor

LoRa (Node)
Wireless Transmitter

100 Series
Submersible Liquid Level Sensor

⚠ **24VDC**

Blue Wire : +mA (Red)
Green Wire : -mA (Black)

White Wire : +ve
Brown Wire : -ve
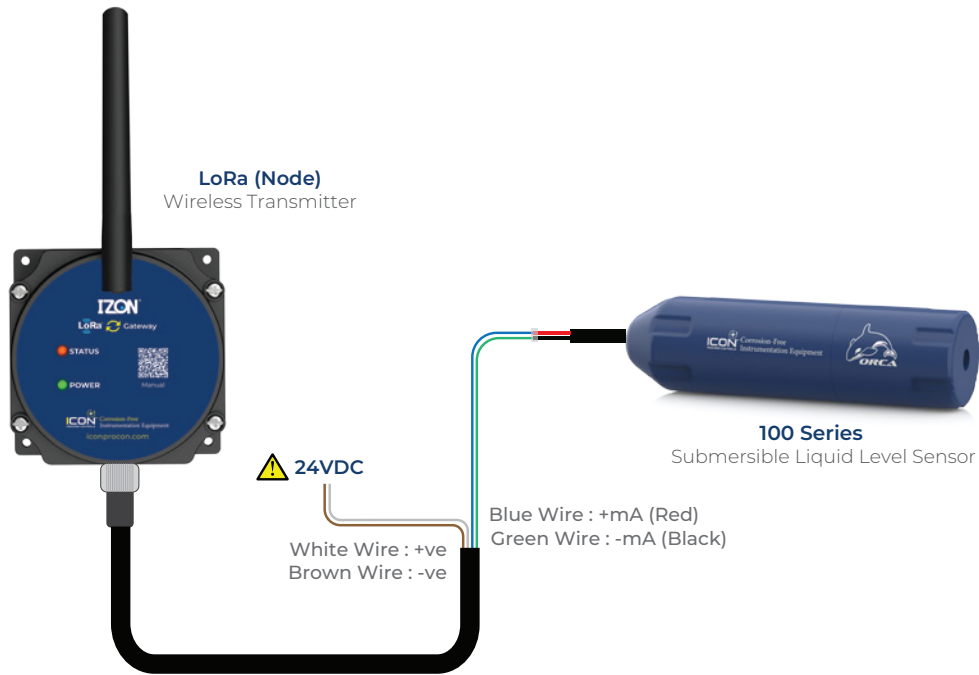
Wiring – LoRa (Node) + ProScan®3

Rotate display anti-clockwise to
access wiring terminals

ProScan®3
Radar Liquid Level Sensor

LoRa (Node)
Wireless Transmitter

⚠ **24VDC**

Blue Wire : +ve Terminal
Green Wire : -ve Terminal

White Wire : +ve
Brown Wire : -ve

Dimensions

Unit : mm [in]
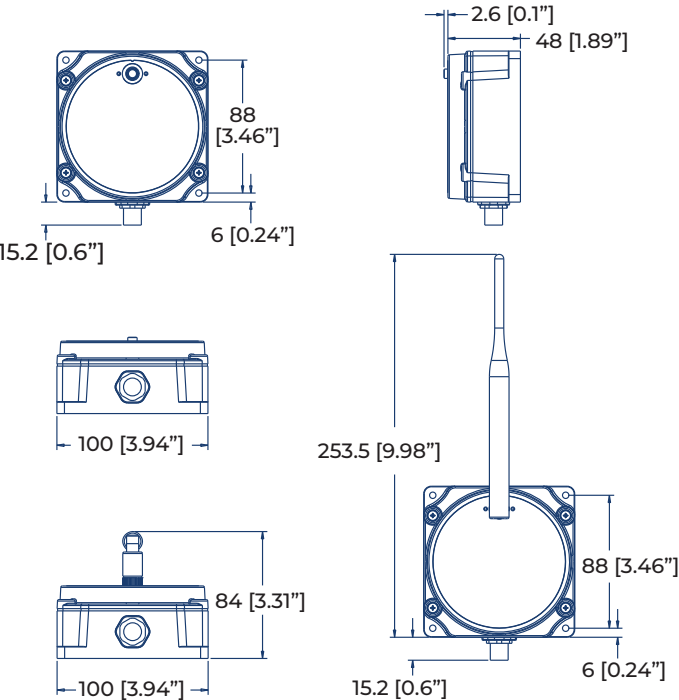
Assembly
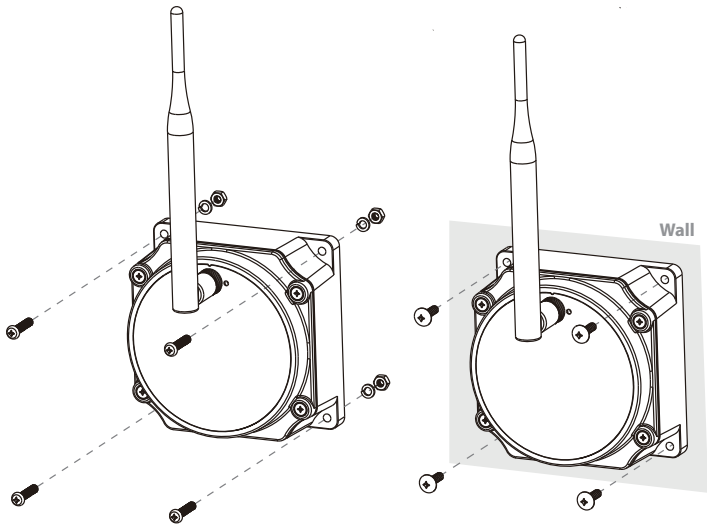
RS-485 USB

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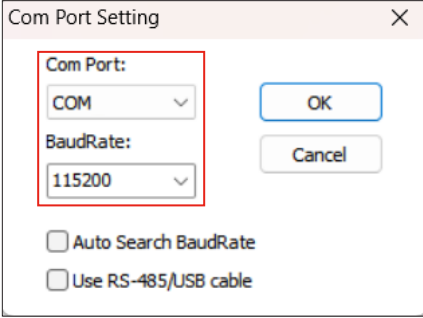
Content	Quantity
LRT (Master)	1 No.
LRT (Node)	1 No.
RS-485 USB	1 No.
M12 Cable	2 Nos.

Configuring Data Transfer Interval (LoRa Node)

+24VDC
-VDC
RS-485 USB

Terminal	Description	Color
1	+VDC (In)	White
2	-VDC (In)	Brown
5	RS-485A	Black
6	RS-485B	Yellow

Steps	Description
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 shown.
3	**Choose "COM" and "Baudrate 115200". Then select "OK"** (The power indication on the device will change from green to red during the setting mode.)

Step	Description
4	Click "Log In" (Leave ID and Password sections blank)
5	From **All Setting List**, choose "Device Setting" function
6	**Follow the below steps:** 1. Choose "I/O Pin" function. 2. Uncheck "Use the ModBus RTU Protocol". 3. Select "Input Pin". 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.