

LRT Series

Long Range Wireless Transmitter



ICON™ PROCESS CONTROLS Corrosion-Free
Instrumentation Equipment™



IZON®

Wireless Monitoring Solutions

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



LRT Series

Long Range Wireless Transmitter



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



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



LRT Series

Long Range Wireless Transmitter



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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	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



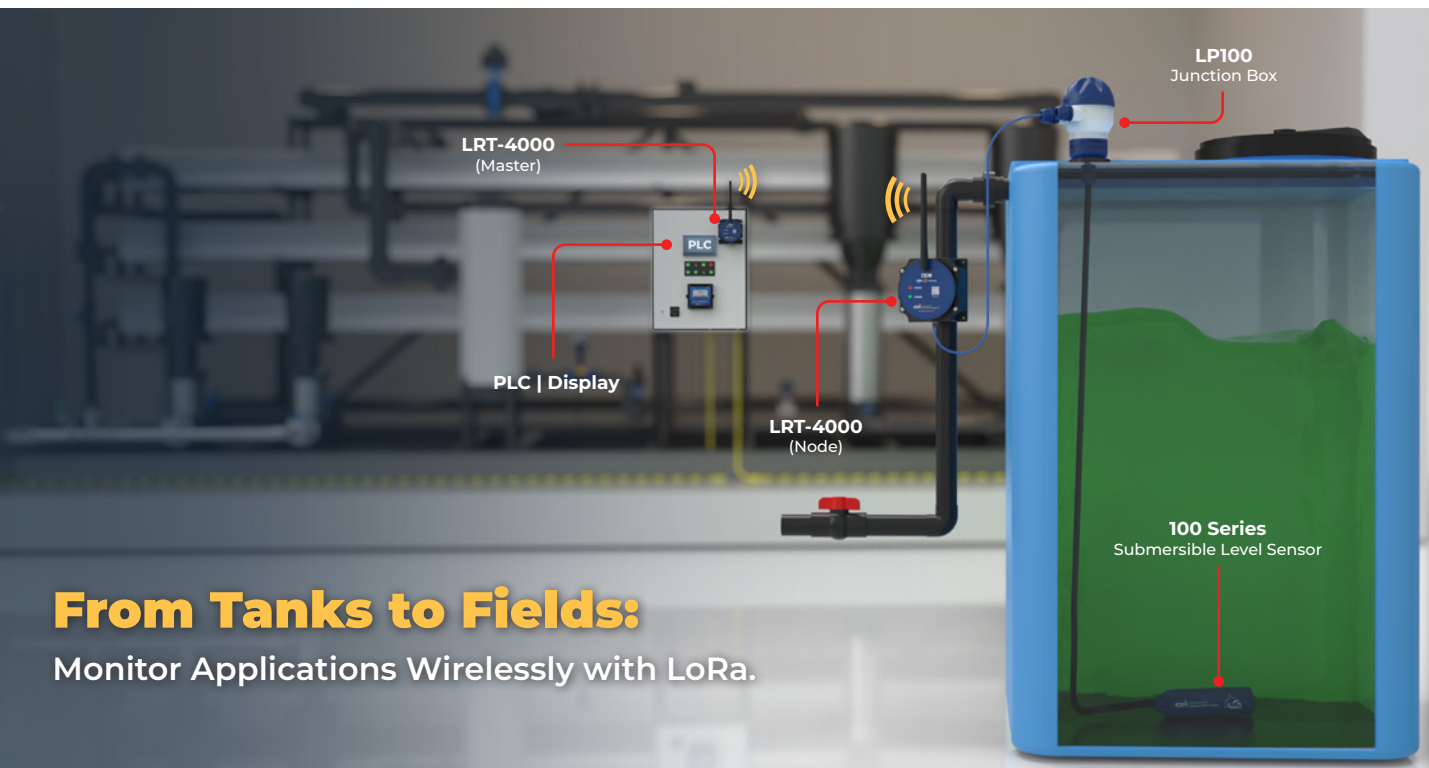
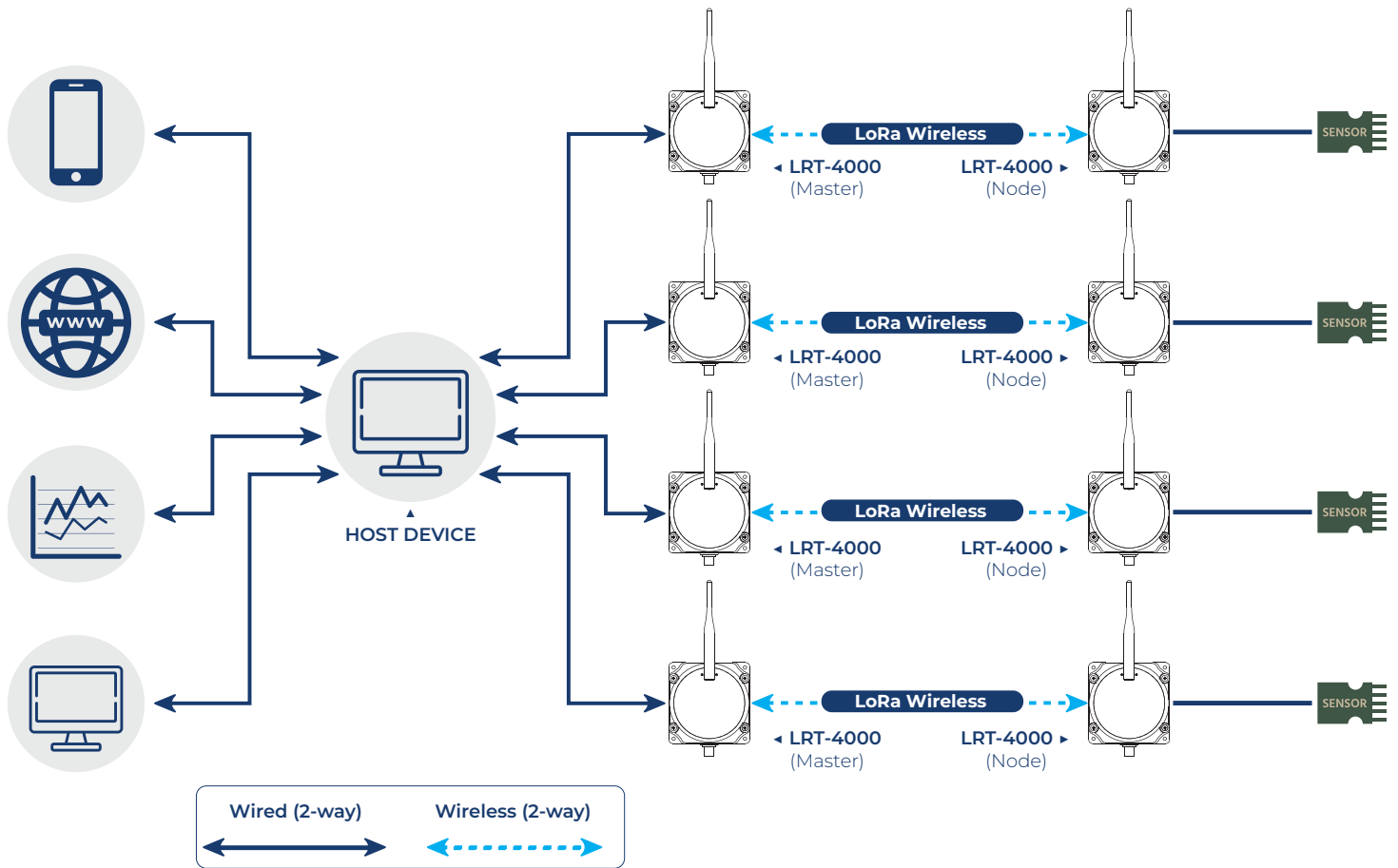
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LoRa Wireless Intranet



From Tanks to Fields:
Monitor Applications Wirelessly with LoRa.

LRT Series

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Wiring - M12



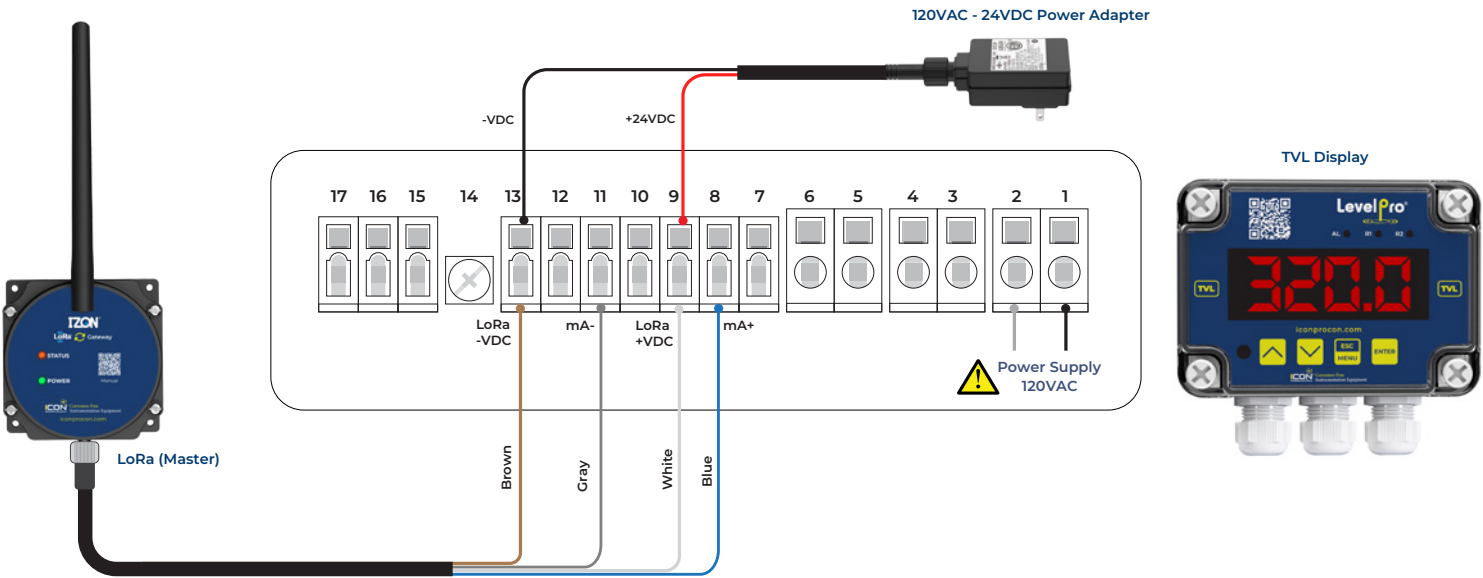
Master (Connects to PLC)

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

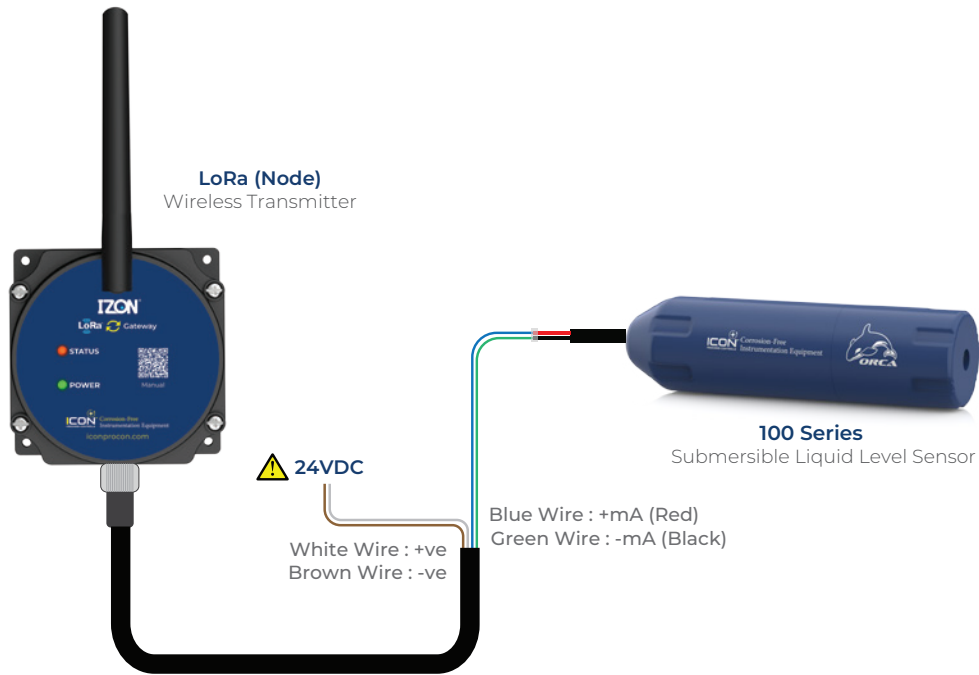
Node (Connects to Sensor)

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



Wiring – LoRa (Node) + 100 Series Submersible Sensor



Wiring – LoRa (Node) + ProScan®3



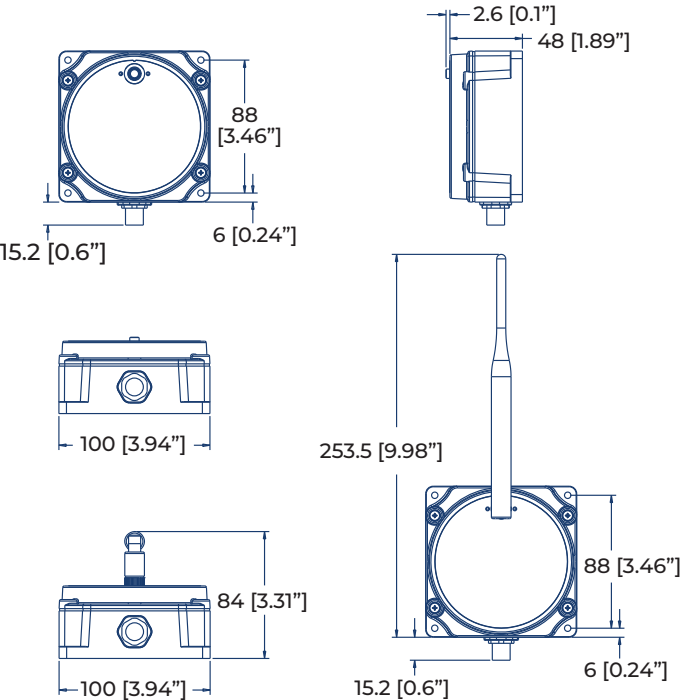
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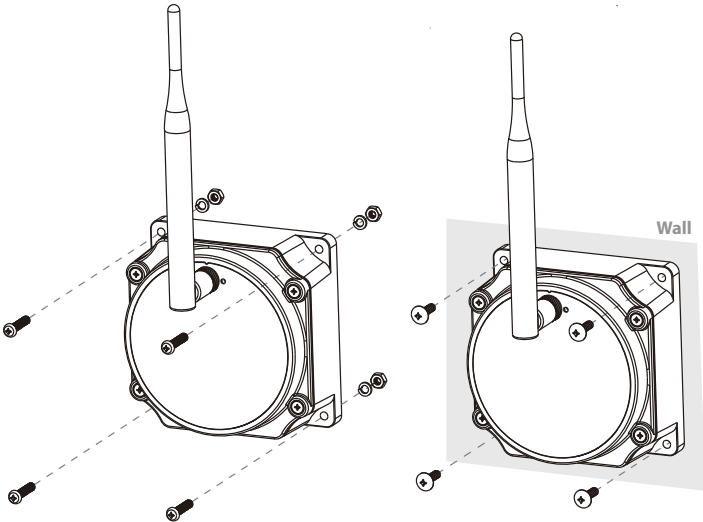


Dimensions

Unit : mm [in]



Assembly



Package Contents

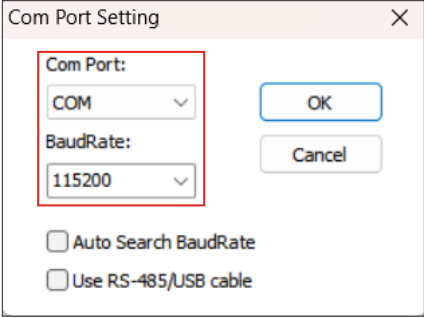
Content	Quantity
LRT (Master)	1 No.
LRT (Node)	1 No.
RS-485 USB	1 No.
M12 Cable	2 Nos.



Configuring Data Transfer Interval (LoRa Node)



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: - Choose “I/O Pin” function. - Uncheck “Use the ModBus RTU Protocol”. - Select “Input Pin”. - Enter how often you want to send 4-20mA signals. (60 = 60Sec = 1 Min. 600 = 600sec = 10 Mins.) - Enter how often you want to send the signals during threshold condition. - Click “Write”. The parameters will be programmed to the device.

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

6 Write