

# PROPANE TANK LEVEL SENSOR – LORAWAN

## Remote Propane Tank Monitoring



### KEY FEATURES

- ◆ **Propane-Ready R3D Integration:** Factory-integrated Rochester 9704 Gen-4 probe for JR/SR R3D™ dials (straight, 6-ft lead). Ships as a complete kit—no field wiring or programming—so installers get a true drop-in propane solution.
- ◆ **Instant Tank Visibility:** Reports percent full (and optional gallons) with configurable low-level alerts. Every uplink also includes raw probe volts and a link-quality snapshot for quick, transparent diagnostics.
- ◆ **Multi-Year, Fleet-Friendly Operation:** Duty-cycled 5 V sensor power and a high-capacity Li-SOCl<sub>2</sub> battery deliver multi-year life at typical 10–30-minute intervals. Supports OTA firmware updates.

### DEVICE OVERVIEW

Battery-powered LoRaWAN® sensor that reads a Rochester 9704 R3D™ gauge sender and reports propane tank capacity percentage (%), propane consumption (gals) as well as remaining tank gallons to your dashboard within the ioX-Connect platform. The ioX end node briefly powers the probe each reading (for long battery life), measures the probe's radiometric voltage, and transmits both % full and raw volts with a link-quality snapshot.

ioX-Connect End-node platform: LoRaWAN v1.0.3 Class A, OTA-configurable.

### R3D DIAL REQUIREMENT & SAFETY NOTICE

This product is designed for use with Rochester **R3D™** magnetic dials (JR/SR). If your tank does not have an R3D-compatible dial, **do not attempt to change the dial yourself**. Contact your propane supplier or qualified service provider to install an R3D replacement dial. The **internal float gauge does not need to be replaced**—only the external dial face is changed. All work must be performed by licensed personnel in accordance with applicable codes (e.g., NFPA 58). Using a non-R3D dial may result in inaccurate readings and unsafe conditions.



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### Key Specifications — Summary

Item	Specifications
Product	Propane Tank Level Sensor (LoRaWAN)
Use Case	Remote monitoring of propane tank level (% full)
Gauge Compatibility	Rochester R3D™ dials (JR & SR; vertical/horizontal)
Probe Variant Supplied	Rochester 9704 – Straight Gen-4 module, JR/SR R3D, 6-ft lead
Reported Fields (default)	Propane_Level_Percent, VDC_V (probe volts), BATTERY (V), LoRa link snapshot (RSSI/SNR, gateways heard, data rate, frequency)
Recommended Alerts	Warning < 20 %, Critical < 10 % (tune to operations)
Typical Applications	Residential & light commercial tanks (120/250/500/1000 gal), delivery optimization, low-level alarms

#### OTHER TECHNICAL FEATURES

- **LoRaWAN Version:** v1.0.3, Class A
- **Supply Voltage:** Built-in Battery , 2.5v ~ 3.6v
- **Power Options:** 8500mAh Li-SOCl2 or Solar Powered 3500mAh option
- **Self-Discharge:** <1% / Year @ 25°C for 8500mAh Li-SOCl2 battery
- **Operating Temperature:** -40 ~ 85°C
- **Downlink Configuration:** Remotely configurable via ioX-Connect platform or ioX-LoRaWAN Network Server
- **Firmware Updates:** Wireless OTA (Over-The-Air) firmware upgrade capability
- **Supported Frequency Bands:** CN470, EU433, KR920, US915, EU868, AS923, AU915, IN865, RU864
- **Reporting Interval:** User-configurable (typ. **10–30 min for battery life**)
- **Enclosure:** Industrial outdoor-ready housing (contact us for options/ratings)

