Non-Contact Wireless Water Level Monitoring Solution

Ultrasonic Level Sensor Included
The OleumTech® OTC Wireless Ultrasonic Transmitter does not come in contact with the liquid (product) or have any moving parts that require maintenance. Specifically designed for water applications, the WT-LL6 can measure up to 12 ft of water level with a high resolution of 0.04 inches. The WT-LL6 can be installed easily and quickly with the provided mounting hardware. Additional data such as volume and tank full percentage can be reported as well based on user preference. This ultra-low-power transmitter is powered by a replaceable battery pack that provides up to a 10-year life. The push button LCD interface allows for device configuration and instant access to process data.

Reliable, Scalable, and Safe
The field-proven wireless transmitter communicates with an assigned wireless gateway within the OTC Wireless Sensor and I/O Network creating a highly scalable network, accommodating virtually any I/O requirement.

The OleumTech wireless transmitter is designed for general purpose applications.
Technical Specifications

HARDWARE FEATURES

Device Functionality
- Liquid Level Sensing Wireless Transmitter Using Ultrasonic Technology
- Non-Contact Solution / No Moving Parts

Embedded Controller
- Ultra-Low Power RISC Microcontroller with Internal FLASH (Field Upgradeable)

Configuration
- Standard RS232 Serial / BreeZ® Software for PC

Sensor Type
- Ultrasonic; Non-Submersible

Reading Range
- Up to 12 ft. / 3.6 m

Dead Band Zone
- 12" / 1 ft. / 0.3 m

Resolution
- High Resolution of 0.04" (1 mm)

Power Source
- Self-Contained, Internal 3.6 Vdc Lithium Battery

Internal Battery Life
- Up to 10 Years, Based on User Defined Reporting Intervals

Local LCD Display
- 32-Character Display (16x2 Lines) with 4 Function Keys + Read Button

Instant Displayable Read
- Product Level / Battery Voltage / RF Status

Local Configuration
- Integral LCD with Push Button Interface

Device Diagnostics
- Health Tags: Battery Voltage, Received Signal Strength Indication (RSSI), RF Refresh, RF Timeout, Error Codes

WIRELESS COMMUNICATIONS

Radio Band
- ISM Band (License-Free)

900 MHz / 915 MHz
- FHSS, FSK, AES Encryption 256-bit (900 MHz), 128-bit (915 MHz)
- DSSS, AES Encryption 128-bit

2.4 GHz
- 900/915 MHz: 9600 bps / 115.2 kbps; 2.4 GHz: 250 kbps

Output Power (Max)
- 900/915 MHz: 10 mW; 2.4 GHz: 63 mW

Receiving Sensitivity
- 900/915 MHz: -110 dBm @ 9600 bps, -100 dBm @ 115.2 kbps
- 2.4 GHz: -101 dBm @ 250 kbps; 868 MHz: -106 dBm @ 80 kbps

RF Range
- 900/915 MHz: Up to 7500 Feet / 1.4 Miles (2.3 km) with Clear Line of Sight
- 2.4 GHz: Up to 4.3 Miles (7 km) with Clear Line of Sight

CERTIFICATIONS & COMPLIANCE

EMC/EMI
- FCC Part 15 (USA), IC ICES-003 (Canada), ACMA (Australia)
- AS/NZS CISPR 32 (Australia)

Safety
- CAN/CSA-C22.2 No. 61010-1-2012
- UL Std. No. 61010-1-2012
- IEC/EN 61010-1-2010

Device is not intended for use in hazardous locations

MECHANICAL SPECIFICATIONS

Dimensions
- 5.5" (W) x 20.2" (H) x 4.4" (D) / 140 mm (W) x 513 mm (H) x 112 mm (D)

Package Dimensions
- 24" (W) x 10" (H) x 7" (D) / 609mm (W) x 254mm (H) x 153mm (D)

Package Weight
- ~6 lbs / 2.7 kg

Connection Fitting
- 1.5" NPT Male Compression Fitting

Enclosure Casing Material
- Type 4X Aluminum; IP66

GENERAL SPECIFICATIONS

Operating Conditions
- Ambient Temperature (Non-Hazardous Applications): -40 °C to 80 °C (-40 °F to 176 °F)
- LCD Screen -4 °F to 158 °F (-20 °C to 70 °C)
- Humidity: 0 to 99 %, Non-Condensing

Warranty
- 2-Year Parts and Labor

Country of Origin
- USA

ORDERING INFORMATION

Model Numbers
- WT-0900-LL6, WT-0915-LL6, WT-2400-LL6

Wirelessly Connects To
- OTC Wireless Gateway

Configuration Cable
- SX1000-CC2, 20-ft All-in-One Configuration Cable

Replacement Battery
- Use OleumTech SX1000-BP3 Only

Networking Diagram

1 Ambiente temperature and one transmission per 1 min interval without any retries were used to calculate battery life. Actual battery life may vary depending on environmental factors, application, and usage. Use data shown above only as general point of reference. See OleumTech Battery Life Expectancy Chart for predicted battery life based on reporting interval.

2 The maximum RF range data was collected under optimal test conditions, including a clear line of sight between antennas. Actual wireless RF range may vary depending on location, RF interference, weather, antenna type, cable type, and line of sight.

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MADE IN USA

ISO 9001 REGISTERED COMPANY

Networking Diagram

WIRELESS ULTRASONIC LEVEL TRANSMITTER

Point-to-Multipoint
“Star Topology”