OleumTech

WIRELESS HIGH LEVEL SWITCH TRANSMITTER

DATASHEET WT-HL2



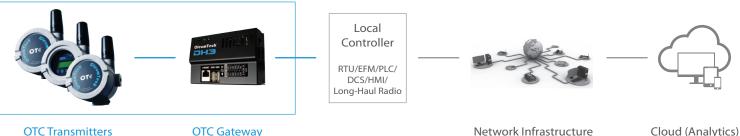


Highlights

- Single actuation high level switch
- Side-mountable level switch included
- Up to a 10-year battery life¹
- Advanced local LCD display interface
- Self-contained, rugged design
- Installs in minutes
- Transmitter: IP66, -40 °C to 70 °C (-40 °F to 158 °F)
- Level Switch: -40 °C to 120 °C (-40 °F to 248 °F) 426.7 PSI
- 900 MHz / 915 MHz / 2.4 GHz / 868 MHz
- Secure AES encryption
- Class I, Division 1 (Zone 0), Intrinsically Safe



US Patent #6.967.589



OTC Transmitters

OTC Gateway

Self-Contained Wireless Spill Prevention Solution

Side-Mount High Level Switch

The OleumTech® Wireless High Level Switch Transmitter is a side tank mounting solution for detecting high liquid level conditions. It can also report transition counts. The WT-HL2 includes the side mountable switch and float, making it a complete ready-to-deploy solution. The WT-HL2 utilizes on-delay exception reporting method and users can set the debounce filter ranging from 20 ms to 2000 ms to control just when the high level detection occurs. As a safety measure, regardless of state change, this device reports to the wireless gateway at a user-defined interval. This ultra-low-power transmitter is powered by a replaceable battery pack that provides up to a 10-year life.¹ 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 certified for use in Class I. Division 1 (Zone 0) hazardous locations. It is intrinsically safe, designed not to cause a spark, and can be serviced without being removed from a process.

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Technical Specifications

HARDWARE FEATURES **Device Functionality** · High Level Sensing Wireless Transmitter (Side Mount) Embedded Controller Ultra-Low Power RISC Microcontroller with Internal FLASH (Field Upgradeable) Standard RS232 Serial / BreeZ[®] Software for PC Configuration Input Single Actuation Point Power Source · Self-Contained, Internal 3.6 Vdc Lithium Battery Internal Battery Life · Up to 10 Years, Based on User Defined Reporting Intervals¹ Local LCD Display · 32-Character Display (16x2 Lines) with 4 Function Keys + Read Button Instant Displayable Read · Discrete Input 1 / Battery Voltage / RF Status Local Configuration · Integral LCD with Push Button Interface · Health Tags: Battery Voltage, Received Signal Strength Indication (RSSI), RF Refresh, RF Timeout **Device Diagnostics** WIRELESS COMMUNICATIONS Radio Band · ISM Band (License-Free) 900 MHz / 915 MHz · FHSS, FSK, AES Encryption 256-bit (900 MHz), 128-bit (915 MHz) 2.4 GHz · DSSS, AES Encryption 128-bit 868 MHz · LBT-AFA, AES Encryption 128-bit 900/915 MHz: 9600 bps / 115.2 kbps; 2.4 GHz: 250 kbps; 868 MHz: 80 kpbs **Bit Rate** Output Power (Max) · 900/915 MHz: 10 mW; 2.4 GHz: 63 mW; 868 MHz: 25mW · 900/915 MHz: -110 dBm @ 9600 bps, -100 dBm @ 115.2 kbps **Receiving Sensitivity** · 2.4 GHz: -101 dBm @ 250 kbps; 868 MHz: -106 dBm @ 80 kbps • 900/915 MHz: Up to 7500 Feet / 1.4 Miles (2.3 km) with Clear Line of Sight² RF Range · 2.4 GHz: Up to 4.3 Miles (7 km) with Clear Line of Sight² • 868 MHz: Up to 5.2 Miles (8.4 km) with Clear Line of Sight² **CERTIFICATIONS & COMPLIANCE** FCC Part 15 (USA), IC ICES-003 (Canada), ACMA (Australia) EMC/EMI FC \otimes · AS/NZS CISPR 32 (Australia), EN55032 & EN55024 (EU) Class I, Division 1, Groups A, B, C, D T3C; Ex ia IIC T3 SP. Class I, Zone 0: AEx ia IIC T3 Safety · ATEX: Sira 13ATEX2142X; Ex ia IIC T3 Ga; II 1 G C E 🖅 🖭 · IECEx: SIR 13.0054X; Ex ia IIC T3 Ga MECHANICAL SPECIFICATIONS · 29" (W) x 13" (H) x 4.25" (D) / 737mm (W) x 330mm (H) x 108mm (D) Dimensions Package Dimensions 13.44" (W) x 20.19" (H) x 7.75" (D) / 341mm (W) x 513mm (H) x 195.58mm (D) Package Weight ~10 lbs / 4.5 kg **Connection Fitting** · 2" NPT Male (Pipe Plug) **Enclosure Casing Material** · Type 4X Aluminum: IP66 Stainless Steel 316 Mating Assembly **GENERAL SPECIFICATIONS** · Ambient Temperature (Class I, Division 1 / Zone 0): -40 °C to 70 °C (-40 °F to 158 °F) · I CD Screen -20 °C to 70 °C (-4 °E to 158 °E) **Operating Conditions** · Ambient Temperature (Non-Hazardous Applications): -40 °C to 80 °C (-40 °F to 176 °F) · LCD Screen -20 °C to 70 °C (-4 °F to 158 °F) · Humidity: 0 to 99 %, Non-Condensing · -40 °F to 248 °F (-40 °C to 120 °C) Switch Temperature Range Switch Pressure Rating · 426.7 PSI · 2-Year Parts and Labor Warrantv Country of Origin . USA ORDERING INFORMATION Model Numbers ·WT-0900-HL2, WT-0915-HL2, WT-2400-HL2, WT-0868-HL2 Wirelessly Connects To OTC Wireless Gateway · SX1000-CC2, 20-ft All-in-One Configuration Cable Configuration Cable **Replacement Battery** · Use OleumTech SX1000-BP3 Only

Networking Diagram

SCADA/CLOUE



¹Ambient 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.

²The 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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