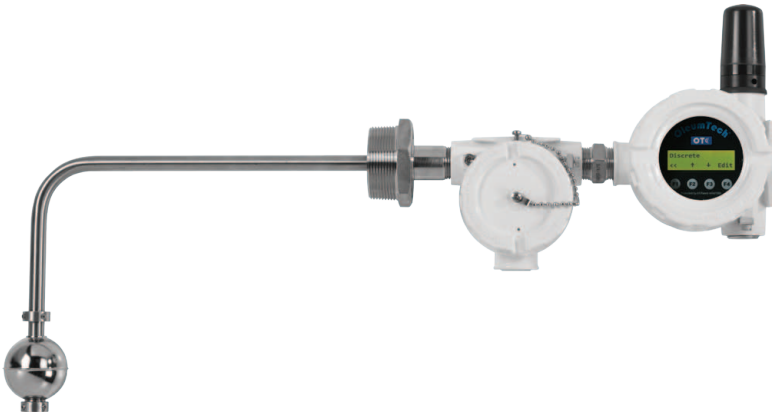
DATASHEET

HL2



Highlights

- Single actuation high level switch
- Side-mountable level switch included
- Up to a 10-year battery life[1]
- Advanced local LCD display interface
- Self-contained, rugged design
- Installs in minutes
- IP66, -40 ˚C to 70 ˚C
- 900 MHz or 2.4 GHz radio option
- Secure AES encryption
- Class I, Division 1 (Zone 0), Intrinsically Safe

US Patent #6967589

OTC Transmitters | OTC Gateway | Network Infrastructure | Cloud (Analytics)

Self-Contained Wireless Spill Prevention Solution

Side-Mount High Level Switch

The OleumTech® HL2 High Level Switch Transmitter is a side tank mounting solution for detecting high liquid level conditions. The HL2 can also report transition counts. The HL2 includes the side mountable switch and float, making it a complete ready-to-deploy solution. The 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 every five minutes. 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

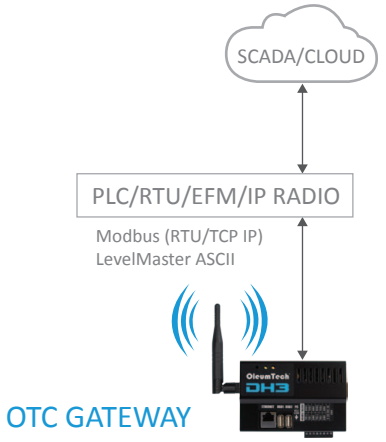
The field-proven wireless transmitter communicates with an assigned wireless gateway within the OTC Wireless Sensor and I/O Network creating a highly scalable network, accommodating virtually any I/O requirement.

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.

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)
Configuration	· Standard RS232 Serial / BreeZ® Software for PC
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 Intervals[1]
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
Device Diagnostics	· Health Tags: Battery Voltage, Received Signal Strength Indication (RSSI), RF Refresh, RF Timeout
WIRELESS COMMUNICATIONS	
Type: 900 MHz / 2.4 GHz	· ISM Band, Spread Spectrum · 900 MHz: FHSS (Frequency Hopping), FSK, AES Encryption 256-bit (900 MHz), 128-bit (915 MHz) · 2.4 GHz: DSSS (Direct-Sequence), AES Encryption 128-bit
Bit Rate	· 900 MHz: 9600 bps / 115.2 kbps ; 2.4 GHz: 250 kbps
Output Power	· 900 MHz: 10 mW; 2.4 GHz: 63 mW
Receiving Sensitivity	· 900 MHz: -110 dBm @ 9600 bps, -100 dBm @ 115.2 kbps / 2.4 GHz: -100 dBm @ 250 kbps
RF Range	· 900 MHz: Up to 7500 Feet (2.3 km) with Clear Line of Sight[2] · 2.4 GHz: Up to 7 km / 4.3 miles with Clear Line of Sight[2]
CERTIFICATIONS & COMPLIANCE	
EMC/EMI	· FCC Part 15 (USA) IC ICES-003 (Canada)
Safety	· Class I, Division 1, Groups A, B, C, D T3C · Class I, Zone 0; AEx ia IIC T3 / Ta = -40 to 158 °F (-40 °C to 70 °C)
	· ATEX: Sira 13ATEX2142X; Ex ia IIC T3 Ga; II 1 G · IECEx: SIR 13.0054X; Ex ia IIC T3 Ga / Ta = -4 to 158 °F (-20 °C to 70 °C)
MECHANICAL SPECIFICATIONS	
Dimensions	· 29" (W) x 13" (H) x 4.25" (D) / 737mm (W) x 330mm (H) x 108mm (D)
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
Mating Assembly	· Stainless Steel 316
GENERAL SPECIFICATIONS	
Operating Conditions	· Ambient Temperature (Class I, Division 1): Transmitter -40 °F to 158 °F (-40 °C to 70 °C) LCD Screen -4 °F to 158 °F (-20 °C to 70 °C) · Ambient Temperature (Non-Hazardous Applications): Transmitter -40 °F to 176 °F (-40 °C to 80 °C) 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	· 900 MHz: WT-0900-HL2; 2.4 GHz: WT-2400-HL2
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



OTC TRANSMITTERS

Point-to-Multipoint
"Star Topology"

[1]Ambient 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.

OleumTech ISO 9001 REGISTERED COMPANY

MADE IN USA