



Wio® High Level Switch

Multi-Point Switches

The WIO® High Level Switches are specifically designed for industrial liquid level sensing for spill/overflow prevention. Available in both, side-mount and top-mount packaging, these submersible level switches are ideal for point level sensing of refined fuels, crude oil products, chemicals, acids, caustics, lubricants, detergents etc.

The High Level Switches are self-contained and integrated with a battery-powered RF transmitter which immediately transmits wireless alarms when a set point level is reached (signaling overflow condition) or fluid level changes. These wireless switches are to be used with WIO Gateway products which connect to the RTU. The WIO System forms the foundation of wireless process control enabling automatic emergency shut-down of the dispensing pump.

Side mount offering is ideal for a single point liquid sensing with wireless alarming capability. Top mount versions come in wide range of options, with standard 1 to 6 feet probe length (maximum up to 15 ft available), and 1-or 2-stage switching. This versatility enables customizable actuation points of two separate specific gravity liquids, as in the case of sensing water in a gasoline or oil tank. The dual input High Level Switch is specifically designed to provide two alarms for added protection against over fills. Typically, one float is required for each point at which you need a switch action to occur.

The WIO High Level Switches utilize a license free 902-928 MHz ISM bandwidth FHSS technology to reliably transmit wireless alarms. This eliminates installation costs of cable and conduit runs. With the WIO® High Level Switches, installation time is now measured in minutes, not days or weeks.

LM5000-HLT
(Top Mount)



FEATURES & BENEFITS

- 100% Wireless Solution Enables Compliance to EPA's Spill Prevention Control Countermeasure (SPCC) Mandate
- Self-Contained, Battery Operated (up to 5 years)
- Modbus Communication Support
- Transmits Alarms Only On Switch Event to Conserve Battery
- Self-checking Software Continuously Monitors for Normal Operation
- Hermetically Sealed Magnetically Actuated Reed Switch
- 316 Stainless Steel for Corrosion Resistance
- Extreme Process Temperature and Pressure
- CSA & FM Approved (Class I, Division 1) for Hazardous Area Operation

TYPICAL APPLICATIONS

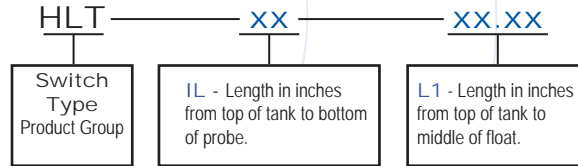
- Oil & Gas
- Industrial Process Control
- Chemicals
- Water/Wastewater
- Emergency Shut Down applications
- Remote Tank/Storage Alarm Monitoring Applications



High level Switch

LM5000-HLT

Top Mount Switch Probe Part Numbering



SYSTEM HARDWARE

- Embedded Controller:** Ultra low power RISC microcontroller with internal FLASH (field upgradeable)
- User's Interface:** Standard RS232 Serial Interface
- I/O Interface:** Up to 5 Actuation Points

WIRELESS COMMUNICATIONS

- Type (Standard):** 900 MHz: ISM, FSK, FHSS (Freq. Hopping Spread Spectrum)
- (Optional):** 2.4 GHz: DSSS (Direct Sequence Spread Spectrum)
- Frequency:** 902 - 928 MHz
- Data Rate:** 115.2 Kbps/9600 bps
- Output Power:** 1mW (default) up to 10 mW
- Receiving Sensitivity:** -100 dBm
- Range:** Up to 3,000 feet based on terrain and clear line of sight
- Compliance:** Complies with FCC Part 15
Complies with Canada IC requirements of CISPR 22

MECHANICAL SPECIFICATIONS

- Monitor Dimensions:** 5" x 8.5" x 4.25" (W x H x D)
- Probe Lengths:** 1 to 6 ft (12" to 72") STD Lengths (Up to 15 ft available) in 1" increments
- Mounting Hardware:** Direct Mount
- Mounting Connection:** 3/4" NPT
- Actuation Points:** Up to 5 points
- Probe Material:** 316 Stainless Steel
- Specific Gravity:** 0.60

ELECTRICAL SPECIFICATIONS

- Power:** Self-contained 3.6 volt lithium battery pack
- Battery Life:** Up to 5 years with usage

CERTIFICATIONS

- Safety:** Intrinsically safe for use in hazardous environments.

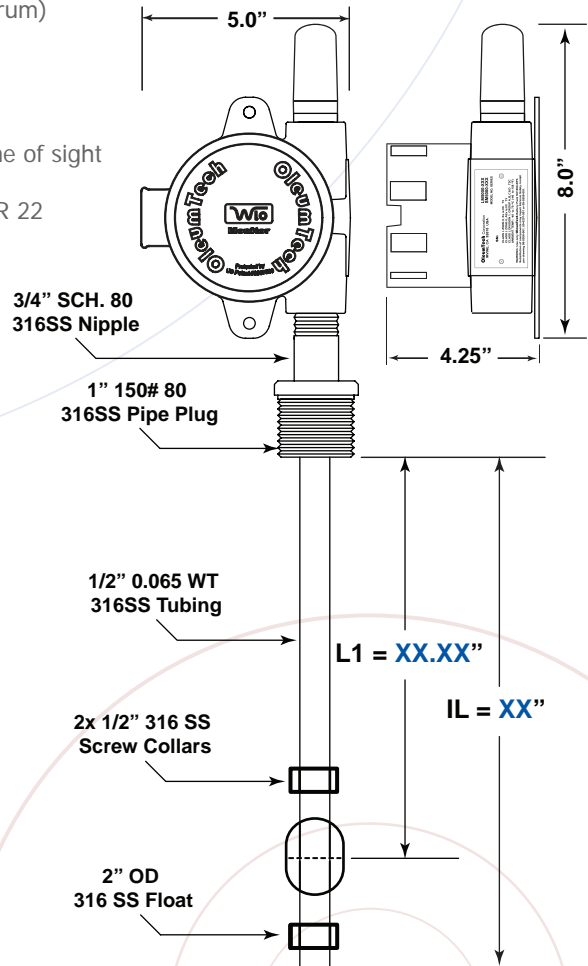
 Class I, Zone 0, Ex ia IIC T3
 Class I, Zone 0, AEx ia IIC T3
 Class I, Div. 1, Group A, B, C & D T3C

Intrinsic Safety Entity Parameters:

Voc: 3.9 Vdc Isc: 20 mA
 CA: 1.5 µF La: 1 mH

GENERAL SPECIFICATIONS

- Operating Conditions:**
 Ambient Temperature (Class I Div. 1): -40 to 70 °C (-40 to 158 °F)
 Ambient Temperature (Non-hazardous Applications): -40 to 85 °C (-40 to 185 °F)
 Humidity: 0 to 99%, non-condensing



OleumTech™ Corporation

29 Parker
 Irvine, California 92618
 ph: 949.305.9009
 Fax: 949.305.9010
 www.OleumTech.com