

Invasive Point Level System

Description

The Ultrasonic Point Level System 1620 Series is an ideal solution for detecting liquid in storage vessels, tanks and pipes. With integrated electronics it is designed for almost any liquid level application. The probe is constructed in 316LSS material. The electronic module is captured in a plastic cassette and is mounted in a NEMA 4/ 7 explosion proof housing. There is no adjustment for the system. An LED indicator on the electronic module offers a visual status of the system. Field selectable Fail safe allows for the relays to be energized on power up or in normal condition to close when liquid is present. Continuous Self-diagnostic checks connection of the probe. A Demand Push button self-test feature on the electronic module assures the user the system is functioning correctly. A delay in is added in on the liquid down to avoid false trip due to wave action.

Operation

The 1620 Series unit consists of two piezoelectric elements mounted in the housing of the sensor. These elements convert mechanical energy in the form of high frequency sound to electrical energy and vice versa. There are mounted parallel and opposite each other across the 1/2" gap in the probe. A high frequency sent from the electronics to the transmitting element, this vibrates the element at 2 to 4 MHz. Air or gases will not carry sound at this high frequency and does not travel across the sensor gap. When the gap is filled with liquid, the sound will travel across the gap to vibrate the receiving element. The vibration generates an electrical signal that is amplified and read by the detector circuit in the electronics as a "wet" signal. The signal is converted to a relay output or a shift in milliamp output.



How to Order HT162- - - - -

Applications

Industries Served

Input 24VDC -	0						
90 to 240VAC -	1						
9-30VDC -	2						
Output: 10 ADPDT -	0						
Loop Power (4-20mA) -	1						
Mounting Integral -	-	1	0				
Remote -	-	2					
Cable (remote) in feet -	-	-	01				
Actuation point inches (01"std) -	-	-	-	01			
Process connection 3/4"NPT -	-	-	-	-	3		
Flange ANSI 150# -	-	-	-	-	-	A	
Flange ANSI 300# -	-	-	-	-	-	B	
Flange Sanitary -	-	-	-	-	-	C	
Flange size 1" -	-	-	-	-	-	-	1
1.5" -	-	-	-	-	-	-	0
2" -	-	-	-	-	-	-	2

High Level / Overflow Alarm
 Low Level / Pump Protection
 Condensate Pots
 Sump Water / Oil Detection
 Lubricant Circulation Equipment
 Fill Machine Level Control
 Pump Leak Detection

Upstream Oil & Gas
 Midstream Oil & Gas
 Water & Waste- Water
 Chemical & Petrochemical
 Pulp & Paper
 Food & Beverage
 Military, Subsea / Surface
 Maritime Shipping
 Inland Barges, ERC Cargo

Specifications

Dimensions

Repeatability: 2mm or better.

**Delay (on): 0.5 seconds Standard.
Options available.**

**Probe material: 316SS Standard.
Optional material available.**

**Actuation point: 1.0" Standard.
Up to 99" available.**

Sensor Temperature: -20 to 240°C

Sensor Pressure: 1000 PSIG 316SS.

Liquid viscosity : From 1 to 75,000 cps

**Process connection: 3/4" NPT Standard.
Flanges available.**

Electronic mounting : Integral or Remote

**Input options: 24VDC, 90 to 240VAC,
9-30VDC**

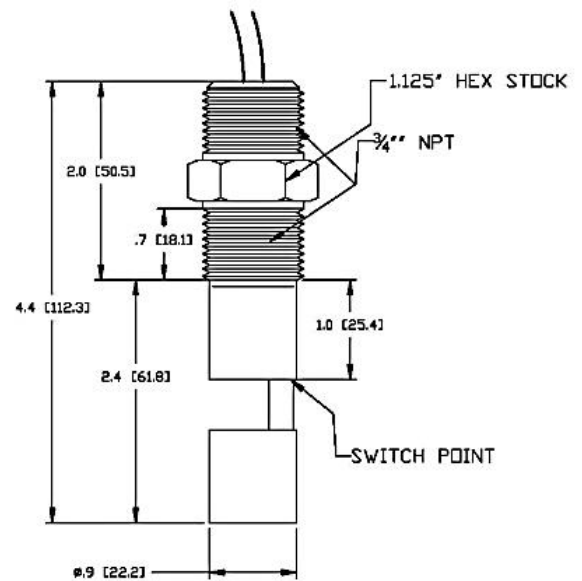
**Output Options: 10A DPDT
Loop Power 4-16mA**

Enclosure: Nema 4 / 7

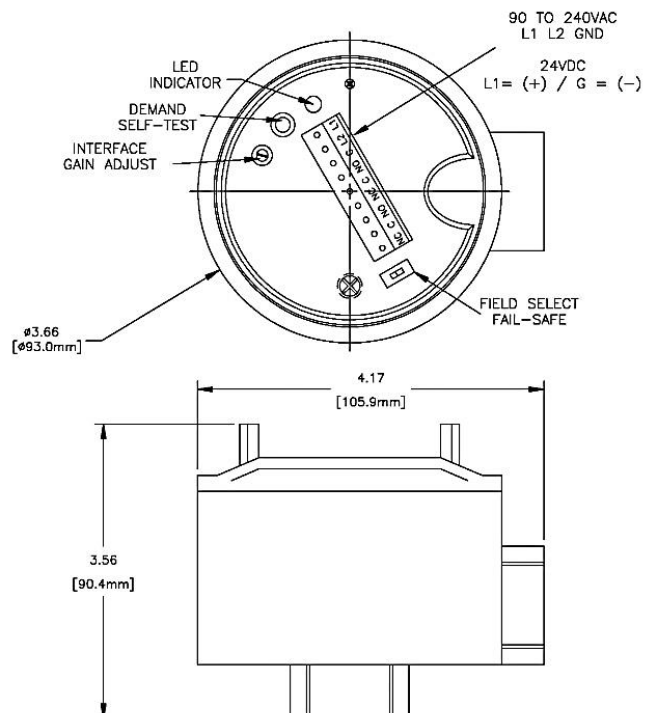
Push Button Demand Self-Test

Field Select Fail-Safe Option

LED Output Indicator



ELECTRONIC MODULE
ENCLOSURE DIMENSIONS



Warranty

HiTECH' HT level sensors are warranted against intrinsic defects for a period of two years from the date of shipment.

Performance Guarantee

Within 30 days of delivery should the unit not perform as we claim and was properly installed in the application that does not exceed our stated performance specifications. The unit may be returned for a full credit.

Designed to meet intrinsic safety for Hazardous locations. UL Approval pending