

Invasive Point Level System

Low Cost Fork Sensor



Description

The Ultrasonic Point Level System 160 Series is an ideal solution for detecting liquid in compact spaces. With integrated electronics it is a direct replacement for Float Switches, Capacitance and Optical Detectors. The PLS 160 detects liquid regardless of any change in density, color, dielectric constant, or viscosity. The PLS 1600 does not require calibration or periodic maintenance. The sensor is constructed in 316 SS and is available in lengths of up to 99". HiTECH can provide the PLS 160 in a variety of engineered plastics to obtain the ideal corrosion resistance in process vessels.

Operation

The 160 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. The elements are mounted parallel and opposite each other across the 5/16" gap in the probe. A high frequency sent from the electronics to the transmitting element, this vibrates the element at 2 to 4 MHz. Neither Air or gases will carry sound at this high frequency and will 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.



A cost effective reliable solution!

How to Order	HT160-	-	-	-	-	-	-	-	-
Input:	9-30VDC	-	2				-		
Output: NPN & PNP or Loop Pwr-		--	2				-		
	1A SPDT	--	3				-		
Mounting: Integral (no enclosure) -		--	0				-		
Cable (remote):	in feet	--			01		-		
Actuation point inches (1.25"std) -		--			03		-		
Process connection	3/4"NPT	--					-	3	
Flange ANSI 150#		--					-	A	
Flange ANSI 300#		--					-	B	
Flange Sanitary		--					-	C	
Flange ANSI 600#		--					-	D	
Flange size 1"		--					-	1	
1.5"		--					-	0	
2"		--					-	2	
Sensor Material 316LSS-		--					-	S	

Applications	Industries served
High Level / Overflow Alarm	Upstream Oil & Gas
Low Level / Pump Protection	Midstream Oil & Gas
Condensate Pots	Water & Waste- Water
Sump Water / Oil Detection	Chemical & Petrochemical
Lubricant Circulation Equipment	Pulp & Paper
Fill Machine Level Control	Food & Beverage
Pump Leak Detection	Military, Subsea / Surface
	Maritime Shipping
	Inland Barges, ERC Cargo



Sensor material 316LSS is standard, other materials available
Other flange and pressure ratings available
CONSULT FACTORY FOR CUSTOMIZATION

Specifications / Features

Dimensions

Repeatability: 2mm or better.
Delay (on): 0.5 seconds Standard.

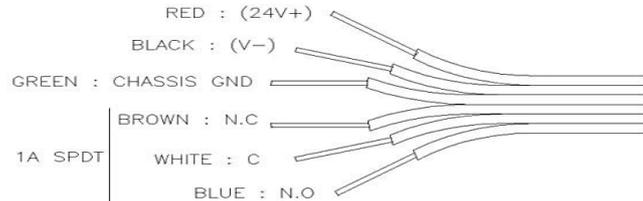
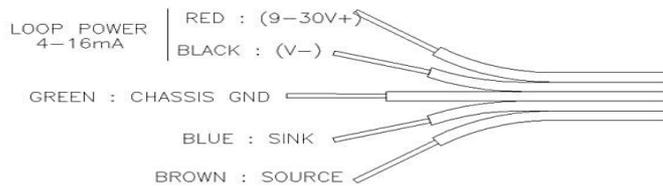
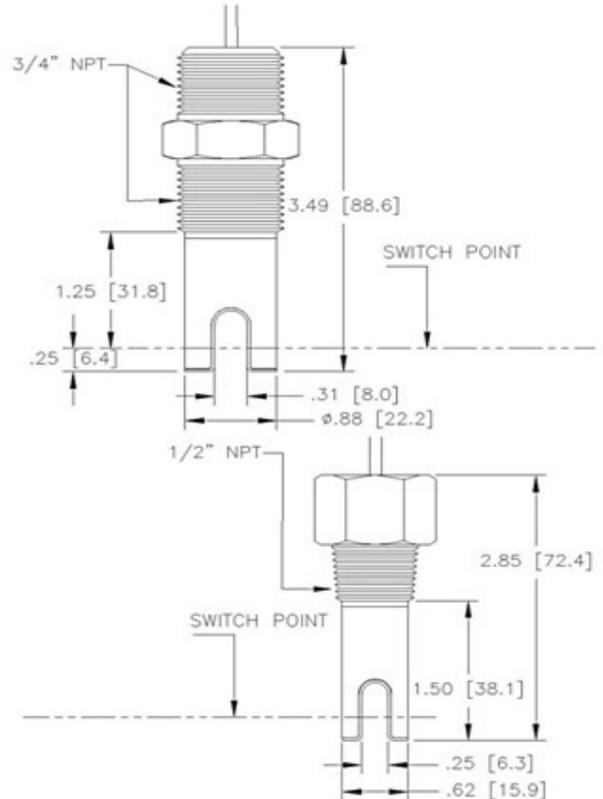
Probe material: 316SS Standard.
Optional material available.

Actuation point: 1.25" Standard.
Up to 99" available.

Sensor Temperature: -0° to 100°C
Sensor Pressure: 500 PSIG 316LSS.
Liquid viscosity : From 1 to 50,000 cps

Process connection: 1/2" & 3/4" NPT Standard
Flanges mounting available.

Electronic mounting : Integral



Warranty

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

Performance Guarantee

Should the unit not perform as we claim within 45 days of delivery and was properly installed consistent with our stated requirements and specifications HiTECH will gladly accept a return of the unit for a full credit.

CSA Approval (pending) Explosion Proof
Class I Group CD
Class II Group EFG
Class III Type 4. EP. IP 65.

Disclaimer: Due to technical progress all Data Sheets are subject to change without notice. HiTECH believes all information in this Data Sheet is correct but is not responsible for any inaccuracies. HiTECH is not liable for any damages. It is the customer's responsibility to install, operate and maintain products properly.