



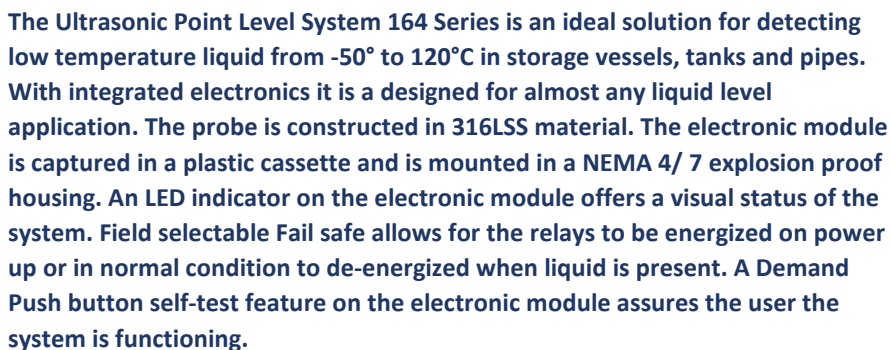
**Sound Steadfast Solutions**

**Made in the U.S.A.**

## ***Invasive Point Level System***

## Cryogenic Fork Sensor

### Description



## Operation

The 164 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 nor 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

How to Order		PLS161-	-	-	-	-	-	-	-
Input:	24VDC -	0					-		
	90 to 240VAC -	1					-		
	9-30VDC -	2					-		
Output:	10 ADPDT-	--	0				-		
	Loop Power (4-20mA) -	--	1				-		
Mounting:	Integral -	--	--	1			-		
	Remote -	--	--	2			-		
Cable (remote):	in feet -	--	--	--	01		-		
Actuation point inches (1.25"std)	-	--	--	--	--	00	-		
							-		
Process connection	3/4"NPT -	--	--	--	--	--	-	03	
	Flange ANSI 150# -	--	--	--	--	--	-	A	
	Flange ANSI 300# -	--	--	--	--	--	-	B	
	Flange Sanitary -	--	--	--	--	--	-	C	
	Flange size 1" -	--	--	--	--	--	-	--	1
	1.5" -	--	--	--	--	--	-	--	0
	2" -	--	--	--	--	--	-	--	2
	Sensor Material -	--	--	--	--	--	-	--	--

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

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

## Specifications / Features

## Dimensions

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

Probe material: 316SS Standard.  
Sensor tip cryogenic epoxy.

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

Sensor Temperature: -50° to 120°C  
Sensor Pressure: 200 PSIG 316LSS.  
Liquid viscosity : From 1 to 50,000 cps

Process connection: ¾" NPT Standard  
Flanges mounting available.

Input options: 24VDC, 90 to 240VAC,  
Output Options: 10A DPDT

Loop Power 4-16mA

Push Button Demand Self-Test  
Field Select Fail-Safe Option  
LED Output Indicator

Electronic mounting : Integral or Remote  
Enclosure: Nema 4 / 7

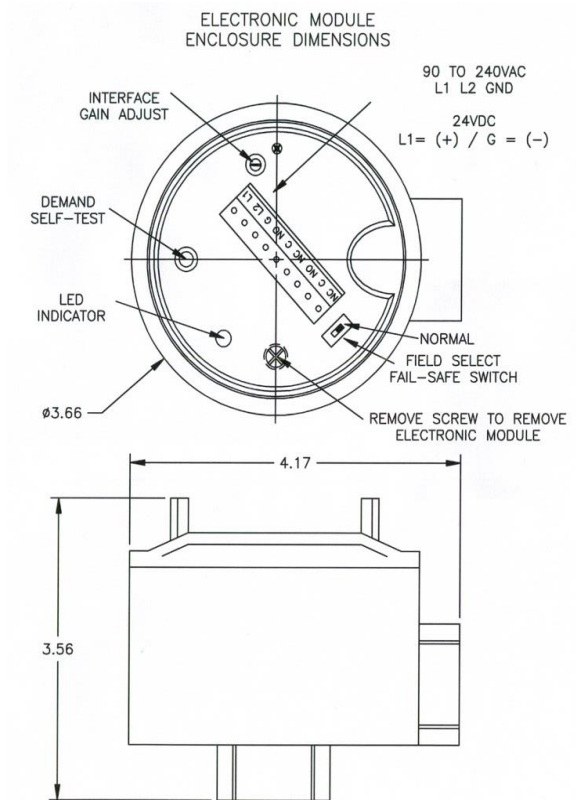
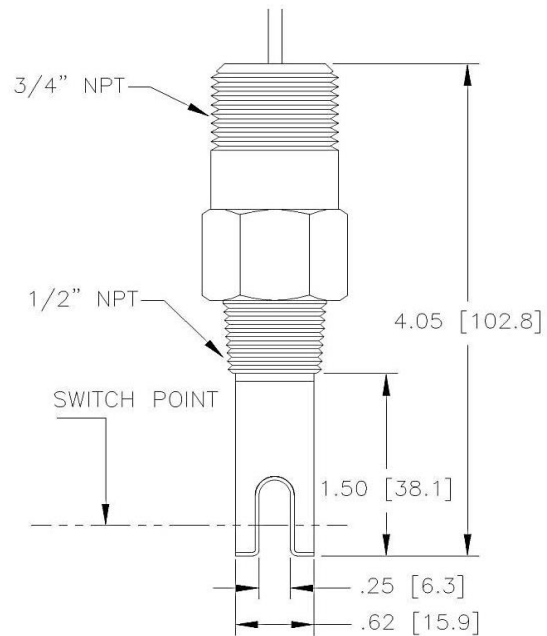
CSA Approval (pending) Explosion Proof  
Class I Group CD  
Class II Group EFG  
Class III Type 4. EP. IP 65.

### Warranty

Sensaras' 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 Sensaras will gladly accept a return of the unit for a full credit.



**Designed to meet intrinsic safety for Hazardous locations.**

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

