Made in the U.S.A.

Invasive Point Level System

Interface Gap Sensor

Description

The Ultrasonic Point Level System 167 Series is an ideal solution for detecting the interface level of two non-homogenous liquids, or the interface level of solids suspended in liquid. 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. 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 de-energized when liquid is present. A Demand Push button self-test feature on the electronic module assures the user the system is functioning correctly.

Operation

The 1670 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 ½" 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
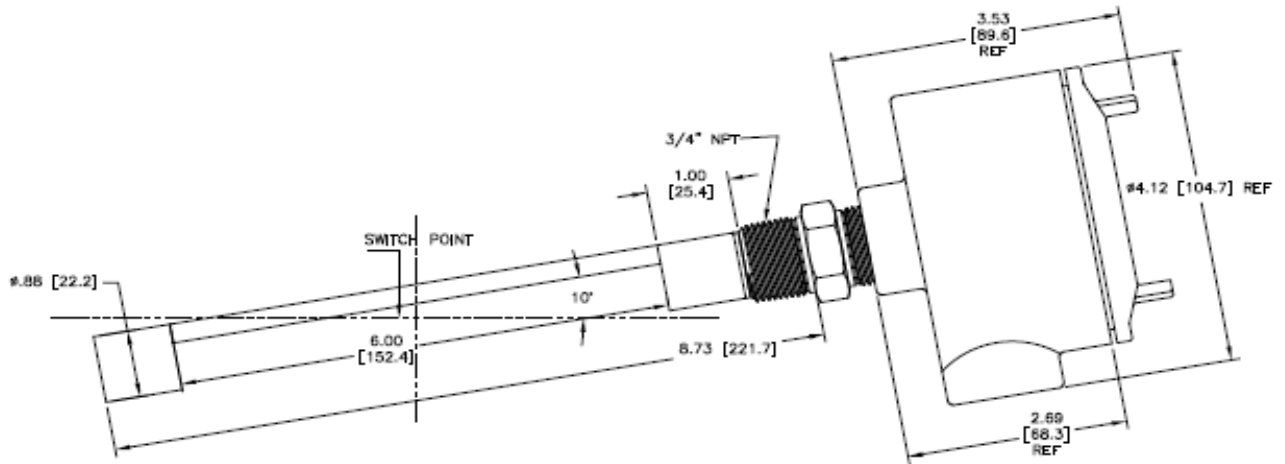
How to Order   PLS167- _ - _ - _ - _ - _ - _ - _ - _ - _

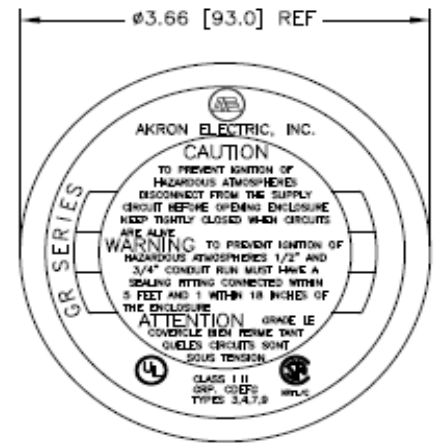|		Input	Output	Mounting	Cable	Actuation	Gap	Process conn	Flange size	Sensor
Input:	24VDC -	0								
	90 to 240VAC -	1								
	9-30VDC -	2								
Output:	10 ADPDT-	--	0							
	Loop Power (4-20mA) -	--	1							
Mounting:	Integral -	--	--	1						
	Remote -	--	--	2						
Cable (remote):	in feet -	--	--	--	01					
Actuation point inches	(1.0"std) -	--	--	--	--	01				
Gap	(6" std) -	--	--	--	--	--	6			
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	-	--	--	--	--	--	--	--		S

Applications

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

Industries served

- Upstream Oil & Gas
- Midstream Oil & Gas
- Water & Waste- Water
- Chemical & Petrochemical
- Pulp & Paper
- Food & Beverage
- Military, Subsea / Surface
- Maritime Shipping
- Inland Barges, ERC Cargo
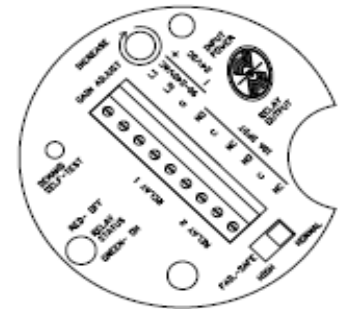
Sensor material 316LSS is standard, other materials available
Other flange and pressure ratings available
Other remote mounted enclosures available
CONSULT FACTORY FOR CUSTOMIZATION

Repeatability: 2mm or better.

Delay (on): 0.5 seconds Standard.

Probe material: 316SS Standard.

Optional material available.

Actuation point: 1.0" Standard.

Lengths up to 99" available.

Sensor Temperature: -20° to 150°C

Sensor Pressure: 1000 PSIG 316LSS.

Liquid viscosity : From 1 to 75,000 cps

Process connection: ¾" NPT Standard

Flanges mounting available.

Input options: 24VDC,   90 to 240VAC,

Output Options: 10A DPDT

Push Button Demand Self-Test

Field Select Fail-Safe Option

LED Output Indicator

Electronic mounting : Integral or Remote

Enclosure: Nema 4 / 7

WIRING DIAGRAM

Warranrty

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.

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