Invasive Point Level System

Description

The Ultrasonic Point Level System 1600 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 1600 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". Sensaras can provide the PLS 1600 in a variety of engineered plastics to obtain the ideal corrosion resistance in process vessels.

Operation

The 1600 Series unit consists of two piezoelectric elements mounted between the forks where the presence and absence of liquid is detected. These elements convert electrical energy to mechanical energy in the form of ultrasonic signal detecting the presence of liquid. The ultrasonic signal is attenuated with no liquid present and passes freely across the gap when liquid is present. The Solid State Closed Loop circuit detects the presence and absence of the ultrasonic signal.

A cost effective reliable solution!

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

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
Petrochemical / Chemical
Water / Waste-water
Maritime Shipping / Inland Barge: ERC- Cargo
Pulp & Paper
Food / Beverage
Military: Subsea – Surface

Repeatability : *2mm or better.*

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

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

Actuation point : *1.5" Standard. Up to 99" available.*

Sensor Temperature : *-20 to 100°C (-4 to 212°F)*

Sensor Pressure : *500 PSI, 316SS (100 PSI Epoxy).*

Liquid viscosity : *From 1 to 50,000 cps*

Liquid specific gravity : *From 0.5 to 1.5 sg*

Process connection : *½" & ¾" NPT Standard, Flanges available.*

Electronics : *Integral*

Input : *9-30VDC (output 1) 12VDC, 24VDC (output 2)*

Output 1. *4mA Dry -16mAWet (Loop Power)*

    NPN (100mA Sink)Isolated

    PNP (100mA Source)Isolated
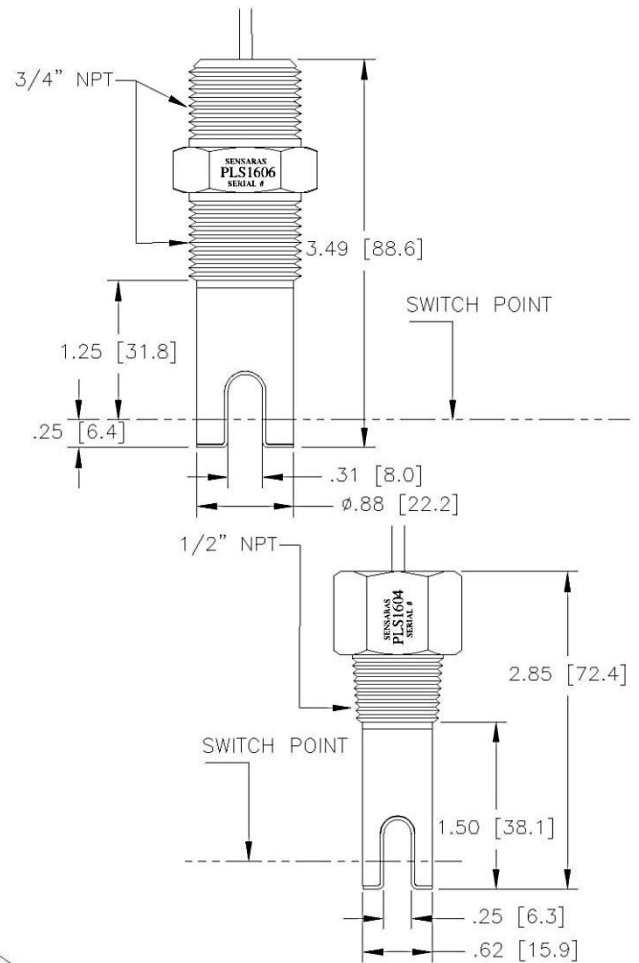
Output 2. *1 A SPDT (240VAC)*

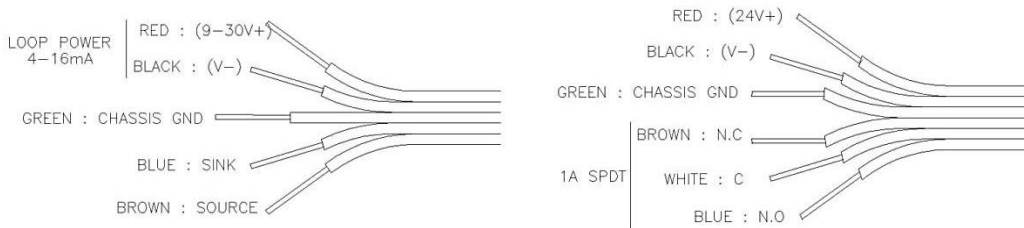**Cable:** *1' (5 wire output 1) Standard. Optional length available.*

    1' (6 wire output 2) Standard. Optional length available.

Connector: *Optional, specify connector.*

Wiring

Warranty | PLS160-_ -_-._-_ | How to Order

Sensaras' level sensors are warranted against inherent defects for a period of 24 months 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.

Model	4	| | |		*1/2" NPT 316SS, Loop Power, NPN & PNP*
	5	| | |		*1/2" NPT, 316SS, 1 A SPDT.*
	6	| | |		*3/4" NPT 316SS, Loop Power, NPN & PNP*
	7	| | |		*3/4" NPT, 316SS, 1 A SPDT.*
Input	0	| |		*9-30VDC (Loop Power, NPN, PNP)*
	1	| |		*12 VDC (Relay)*
	2	| |		*24 VDC (Relay)*
Actuation Point	0	|		*1.5" (Standard, Specify length in inches)*
Cable length		0		*1' (Standard, Specify length in feet)*