



Sensaras

PLS 560 Series

Sound Steadfast Solutions

Made in the U.S.A.

Invasive Point Level System

Air Bubble Detector



Description

Ultrasonic Point Level System 5600 Series is designed to non-invasively detect the presence or absence of liquid in a tube using Ultrasonic Technology to transmit and receive sound. This could also be viewed as detecting the presence of bubbles in a tube or an Air Bubble Detector. There are no moving parts to the sensors. It is not dependent on the color, dielectric constant, density, viscosity of the liquid or the color, opacity and material of the tube. The miniaturized electronics are built in the sensor. The sensors can be built to any type of tube to detect the presence of bubbles or Air-In-Line that range in size from 1mm to 19mm. Consult Sensaras for sensors requiring a larger tube size. There is no calibration or adjustment as each sensor is designed for the specific size tube, flow rate of the liquid, input and output of the user's specifications and requirements.

Operation

The 5600 Series unit consists of one or two piezoelectric elements mounted across a gap in where the tube is freely inserted by the user. These elements convert electrical energy to mechanical energy in the form of an ultrasonic signal detecting the presence of liquid. The ultrasonic signal is attenuated with no liquid present and passes freely across the gap with the tube when liquid is present. The circuit detects the presence or absence of the ultrasonic signal and through a series of processing and filtering of the signal reliably determines the presence of bubbles and converts the signal to the desired output.

How to Order	PLS168-	-	-	-	-	-	-	-	-
Input:	24VDC-	0							
Output:	Sink(NPN) Dry-	--							
	Sink(NPN) Wet-	--							
Output:	Source(PNP) Dry-	--	0						
	Source(PNP) Wet-	--	1						
Mounting:	Integral-	--	--	1					
	Remote-	--	--	2					
Cable (remote):	in feet-	--	--	--	01				
	Pipe OD-	--	--	--	0.25				
	Pipe ID-	--	--	--	0.21				
Tube Material-	--	--	--	--	--	T			

Applications	Industries served
Infusion pumps	Medical / Pharmaceutical
Air Bubble Alarm	
Drip chamber	Semiconductor
Chemical, Vapor Deposition	
Atomic Layer Deposition	
Chemical dispensing	Chemical
Low level switch	
Liquid food dispensing	Food & Beverage
Fill bottle machine	Automation
Pump Leak Detection	

CONSULT FACTORY FOR CUSTOMIZATION

Input: 9-30VDC

Repeatability: 2mm or better.

Delay (on): 0.1 seconds.

Current consumption: Typical 25mA max

Housing: Epoxy

Bubble size: Typical +/- 60% of ID of tube
(depending on material)

Pipe sizes from 1mm to 19mm

Sensor Temperature: -0° to 65°C

Design Options

Housing: PCV, Ultem, ABS for OEM custom

Input option: 5VDC,

Output option: TTL

Consult Factory for other dimension

Optional material available.

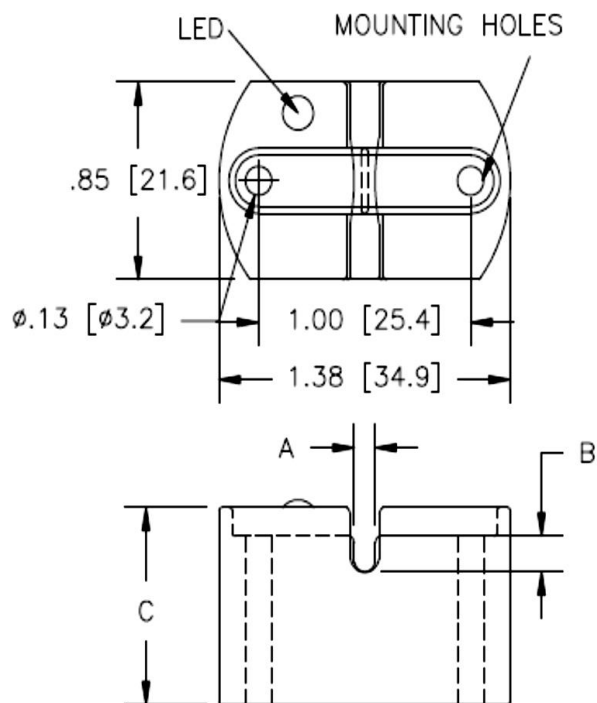
Connector: Available (specify)

Remote Electronic module Optional

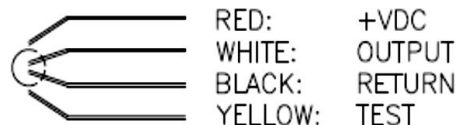
Status LED Avilable

Custom response time

Custom design to fix users form and fit



WIRING:



DIMENSIONS ARE DEPENDENT ON O.D OF THE TUBE CONSULT FACTORY FOR DIMENSIONS

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.

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.