



**Invasive Point Level System**

**Description**



The Ultrasonic Point Level System 9600 Series is designed to detect the level of Ultra-Pure Liquid Chemical in Bubblers and Ampoules in the Semiconductor industry in PVD, CVD and ALD processes. The probe fits in the 1/2" or 3/4" VCR fill port of the ampoules. There are no moving parts to the probe that may introduce impurities. It is not dependent on the color, dielectric, density and viscosity of the chemical. The design allows for multiple sensing points. All wetted parts of the probe is 316LSS, electro-polish finish and leak tested. Each probe is custom made to user's specifications and requirements.

The electronics are remotely mounted from the probes to allow for higher temperature applications. There is no calibration or adjustments between sensors.

**Operation**

The 9600 Series unit consists of a pair of piezoelectric elements per point, mounted between two tubes or between the prongs of a fork to detect presence or absence of liquid. Each one of the pairs of the elements is able to transmit an ultrasonic signal that is able to be received by the corresponding other element of each pair to detect the presence of liquid. The ultrasonic signal is attenuated with no liquid present and passes freely across the gap when liquid is present. The circuit detects the presence or absence of the ultrasonic signal and converts the signal to a relay output.



**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.



**Warranty**

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

Order from: **C A Briggs Company**  
622 Mary Street; Suite 101; Warminster, PA 18974  
Phone: 267-673-8117 - Fax: 267-673-8118  
[Sales@cabriggs.com](mailto:Sales@cabriggs.com) - [www.cabriggs.com](http://www.cabriggs.com)

# Specifications

## Probe Design Features

**Material:** Tube or Fork 316LSS

**W- Probe** 4 or 8 points on 0.375" OD tube with 0.21" ID - 1/2" VCR

**W- Probe** 4 or 8 points on 0.562" OD tube with 0.31" ID - 3/4" VCR

**M- Probe** 4 point on 0.562" OD tube for low level - 3/4" VCR

**Temperature:** -20 to 120°C

**Pressure:** 250 PSIG

**Repeatability:** Typical +/- 0.05"

**Lowest Sensing Point on probe:** 0.20"

**Minimum distance between point:** 0.20"

**Finish:** Electro-polished / 10u Ra Surface

**Cable:** 2' long integral or remote

**Optional:** K-type Thermocouple

## Electronic Module Design Features

**Input:** 24VDC

**Output:** 1A SPDT with LED Display

**Additional Fault relay output/ sensor disconnect**

**Additional Auto fill / empty output**

**Sensor disconnect**

**Optional:** 90 to 240VAC power supply

**Optional:** K-Type Thermocouple display

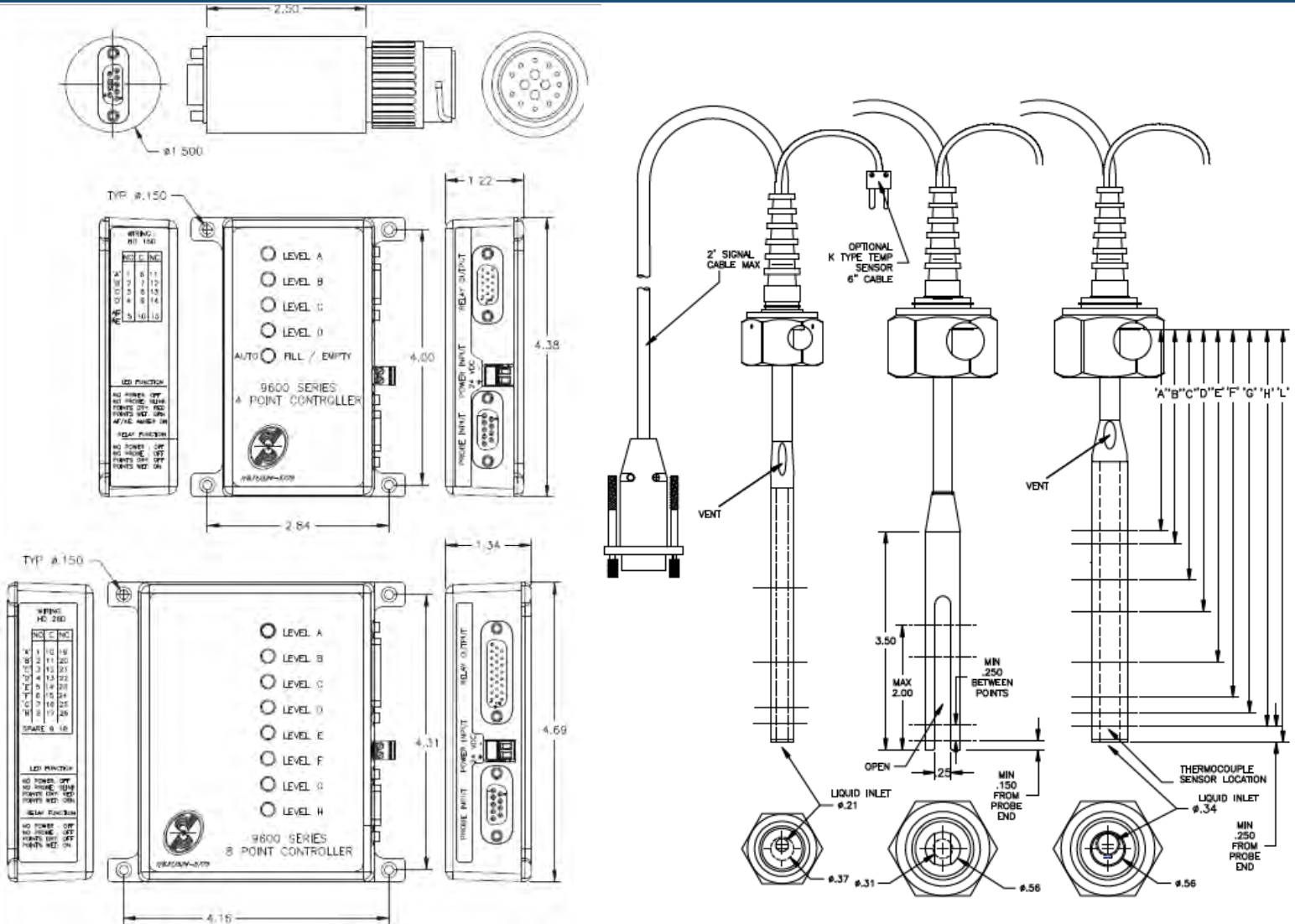
**Remote / Integral / Custom Electronics**

**Molded Cable Extension**

## Dimensions

## Electronics

## Sensors



**Please call Sensaras for part numbers for electronics and sensors**

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.

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