



Toroidal Conductivity Measurement System

CondSys:Toroidal



Features:

- ❖ High resolution measurement
- ❖ Pre-calibrated (no field calibration required)
- ❖ Plug & play sensor heads
- ❖ 0 to 2 S/cm range
- ❖ Offered in a variety of materials
- ❖ Direct data reporting (24-bit)
- ❖ Plug & play industrial communications adaptors

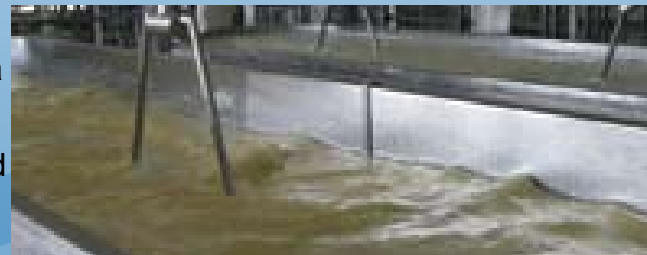
Benefits:

- ❖ Precalibrated for conductivity & Temperature
- ❖ Retains calibration in the head
- ❖ Sensor head replacement without powerdown
- ❖ Variable mounting options
- ❖ Auto temperature compensation
- ❖ Either direct connect to PLC or use with AV38/Aquapro controllers.

Applications:

- ❖ **Chemical production**
 - Leak detection in heat exchangers
 - Acid and caustic dilution
- ❖ **Metal finishing**
 - Plating bath control
 - Parts cleaning & rinsing
 - Pickling bath control
 - Waste streams
- ❖ **Semiconductors**
- ❖ **Pulp & paper**
 - Black, white, or green liquor
 - Pulp bleaching
- ❖ **Food processing**
 - Chemical peeling
 - Sanitization (CIP)
- ❖ **Pharmaceutical**
 - Chemical concentration control
- ❖ **Environmental**
 - Wet chemical scrubbers
 - Cooling towers

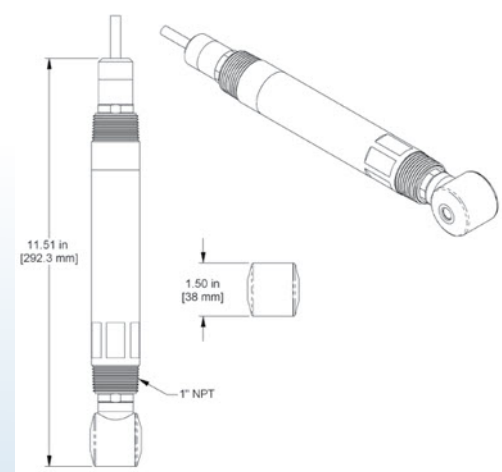
This robust and chemically resistant sensor is ideal for highly demanding industrial application. The sensor + data stick may be directly connected to site PLC using a variety of comms protocols or used in conjunction with the AV38 or Aquapro transmitter/displays as stand alone units. The sensor heads are factory calibrated and the calibration is stored in the head enabling simple replacement or interchange.



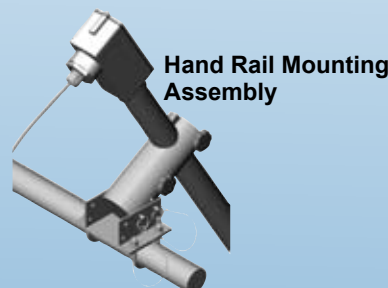
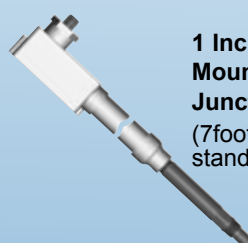


System Specification

Measurement System Performance	Range: 0 to 2,000,000 $\mu\text{S}/\text{cm}$ (2 S/cm) Resolution: 4.5 significant digits Accuracy: 0.1% of reading	Note: Typical at 25 °C Performance unaffected by cable length Note: Class II DC power supply required
Operational Environment	PEEK Sensor Head Temperature Range: -5°C to 100 °C Maximum Pressure: 200psig @ 100 °C Maximum Flow Rate: 10 ft/sec	CPVC Sensor Head Temperature Range: -5°C to 75 °C Maximum Pressure: 85psig @ 75 °C Maximum Flow Rate: 10 ft/sec
Power Requirements	Voltage Range: 10 to 30 VDC Maximum Power: 200 mW Typical Power: 120 mW	
Construction	O-rings: Viton® (other materials available) Sensor Head Material: CVPC, PEEK Weight 1.2 lbs (PEEK or CPVC) 2.6 lbs (316 Stainless Steel)	
Units of Measure	Measurement Units: $\mu\text{S}/\text{cm}$, TDS, % conc. Temperature Units: °C, °F	
Calibration	Zero: In dry air Note: Toroidal are pre-calibrated at the factory Span: 1 point Temperature: 1 point	
Temperature compensation option	Linear: % per °C Note: Temperature can be entered manually	
Other Configuration Options	Sensor Filter: 0-100 seconds Temperature Filter: 0-100 secs Concentration table: User 10 point	
Approvals and Ratings	Immunity & Emissions: CE Certified 89/336/EEC: CISPER 11, EN61000 (-4-2,-4-3,-4-4,-4-6, 4-8) Safety: cULus Listed; 367G E303570 Hazardous Locations: Haz Loc Class 1, Division 2, Groups A, B, C, D. Max Ambient 80 °C	



Sensor Mounting Options



Display/Control Options

AV38 controller



AquaPro controller



See separate sheets for details of above controllers

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