



Conductivity/Resistivity Measurement System

CondSys:Cell



Features:

- ❖ Two Electrode measurement
- ❖ High performance construction
- ❖ Pre-calibrated
- ❖ Plug & play sensor heads
- ❖ 0 to 500 and 0-5000 $\mu\text{S}/\text{cm}$ range
- ❖ Offered in a variety of materials
- ❖ Direct data reporting (24-bit)
- ❖ Plug & play industrial communications adaptors

Benefits:

- ❖ No field calibration required
- ❖ 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.

This conductivity or resistivity sensor is available in three different cell constants. It has SS /Ti electrodes and a choice of Peek or CPVC body material. It is ideal for use in the “cleaner” industrial applications and potable water. 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.

Applications:

- ❖ Food processing
- ❖ Pharmaceutical
- ❖ Water production
- ❖ Reverse osmosis filters
- ❖ Desalination
- ❖ Deionization
- ❖ Ultrafiltration
- ❖ Distilled water
- ❖ Semiconductor
- ❖ Power generation
 - Steam production
 - Condensate return
 - Boiler blowdown
 - Cooling towers
- ❖ – Leak detection in heat exchangers
- Demineralizers

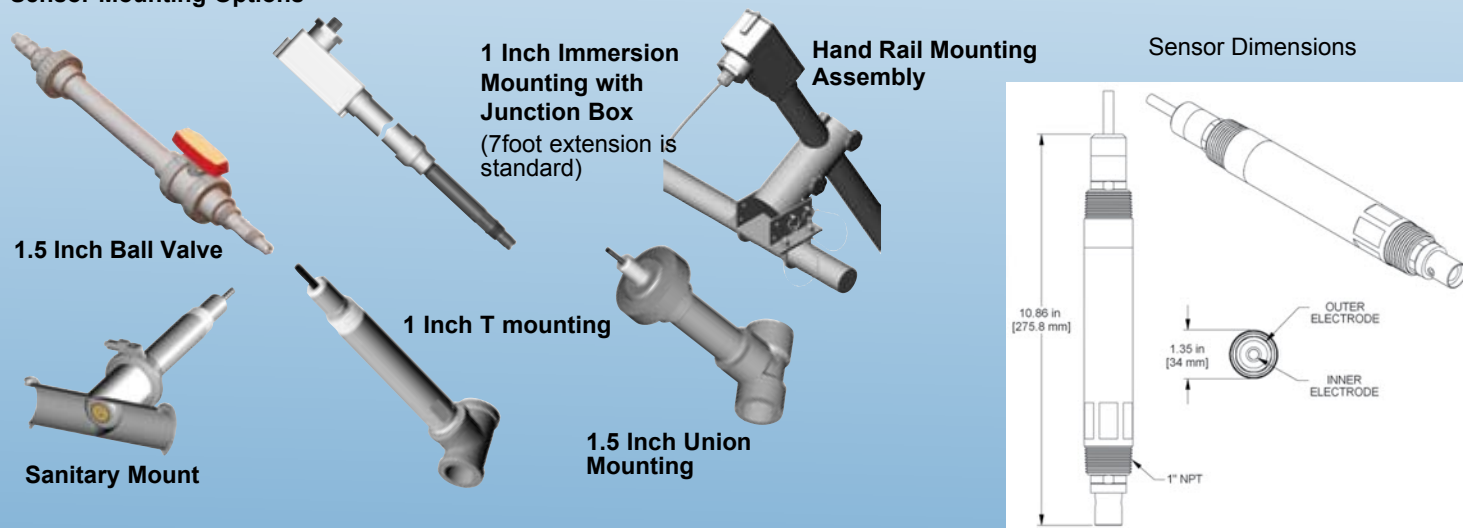




System Specification

| | | |
|--|---|--|
| Measurement System Performance | Range | Resolution: 4.5 significant digits |
| | 0.01 Cell: 18.2 MΩ • cm to 50 μS/cm 0.1 Cell: 0 to 500 μS/cm 1.0 Cell: 0 to 5000 μS/cm | Accuracy: 0.1% of reading Step Response Time: 90% in 30 seconds |
| Note: Typical at 25°C Performance unaffected by cable length | | |
| Operational Environment | PEEK Sensor Head Temperature Range: -5°C to 95 °C Maximum Pressure: 150psig @ 95 °C Maximum Flow Rate: 10 ft/sec | CPVC Sensor Head Temperature Range: -5°C to 75 °C Maximum Pressure: 150psig @ 75 °C Maximum Flow Rate: 10 ft/sec |
| | Power Requirements Voltage Range: 10 to 30 VDC Maximum Power: 200 mW Typical Power: 120 mW Note: Class II DC power supply required | |
| Construction | Cell Constants 0.01 for resistivity 0.1 and 1.0 for conductivity Electrode Material: Titanium, 316 stainless steel | O-rings: Viton® (other materials available) Sensor Head Material: CPVC, PEEK Data stick Material: 316 SS, CPVC, PEEK Weight 1.2 lbs (PEEK or CPVC) 2.6 lbs (316 Stainless Steel) |
| | Note: Conductivity and temperature are pre-calibrated at the factory | |
| Units of Measure | Measurement Units: μS/cm, TDS, %, MΩ • cm Temperature Units: °C, °F | |
| Calibration | Zero: In dry air Span: 1 point Temperature: 1 point | Note: Temperature can be entered manually |
| | Temperature compensation option Linear: % per °C | |
| 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



See separate sheets for details of above controllers

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