S80 Intelligent Sensors

The ECD
Six Point Advantage

ELECTRO-CHEMICAL DEVICES

What are the S80 Sensors?

- Intelligent Sensor Design that includes:
  - Digital Communication
  - Stored Calibration Data
  - Temperature Sensor
  - Durable ¾” OD body
- Optional Waterproof IP68 Detachable Cable
- Insertion/Submersion Design(~10” long)
- Valve Retractable Design (~17” long)

What is the 6 Point Advantage?

1. Intelligent sensor design with digital communication
2. Multiple individual measurement parameters
3. Application specific electrode cartridges
4. Long life replaceable electrode cartridges
5. Submersible and Retractable Sensors
6. Industrial housing materials for process compatibility

What is the 6 Point Advantage?

1. Intelligent sensor design with digital communication
   - Calibration data is stored in the sensor allowing field installation of pre-calibrated sensors.
   - Detachable cable option simplifies the installation of pre-calibrated sensors.
2. Multiple individual measurement parameters
   - The same mechanical configuration
   - pH, ORP, Specific Ion, Dissolved Oxygen, Conductivity & Resistivity

What is the 6 Point Advantage?

3. Application specific electrode cartridges
   - Readily available
   - Many unique pH electrode design formulations and materials of construction
   - Double and Triple junction Reference Electrode designs
4. Replaceable electrode cartridges
   - Field proven and selected for long life and accuracy.
   - Lower over all operating costs

What is the 6 Point Advantage?

5. Submersible and Retractable Sensors
   - Various process fittings with adjustable insertion lengths
   - threaded fittings, sanitary fittings, flanges and valve retractable fittings.
6. Multiple Housing Materials
   - 316 Stainless Steel (standard)
   - Titanium
   - Hastelloy
   - PVDF (KYNAR)
   - Polypropylene

pH and ORP Electrode Cartridges

- 2005145 General Purpose
  - Radel body, Double Junction
  - Waste Effluent to Potable Water

- 2005005 High Temperature
  - Radel Body, Triple Junction
  - HT, Extreme pH, S^{-2} Resistant

- 2005066 Chemically Resistant
  - PEEK Body, Triple Junction
  - Solvent and Oxidizer Resistant

- 2005167 ORP (Redox)
  - PEEK Body, Double Junction
  - Aquariums to Plating Baths

Specific Ion and Dissolved Oxygen

- Specific Ion Electrodes
  - Double Junction Reference
  - Ammonium, Bromide, Calcium (Hardness), Cadmium, Chloride, Cyanide, Fluoride, Lead, Nitrate, Potassium, Sodium, Sulfide, Silver
- Dissolved Oxygen Electrodes
  - Galvanic : Lead/Silver
  - Acidic Fill for minimal CO_2 interference
  - Over One Years Life in most aerobic Applications

Conductivity and Resistivity Sensors

- Both Styles are Contacting Conductivity Measurements
- Conductivity Sensor
  - Closed End Style
  - Range: 0.5µS – 50mS
- Resistivity Sensor
  - Open End Style
  - Range: 0MΩ – 20 MΩ

Inductive Conductivity (non-contacting)

- Inductive sensors use Induction to determine the conductivity.
  - Two toroidal magnets are embedded in the PVDF housing
  - The toroids couple through the conductivity of the surrounding solution.
  - The degree of Induction is proportional to the Conductivity.
- No Metals contact the Solution
- Great for coating or corrosive applications
- Range: 0.5 mS – 1 S (1000 mS)

T80 Transmitter

- One Transmitter for Multiple Measurements
  - pH
  - ORP
  - Dissolved Oxygen
  - All Specific Ions
  - Conductivity
  - Resistivity
  - Turbidity/Suspended solids
  - Chlorine

Accessories

- Flow Cells, ½” NPT through
  - PVC
  - KYNAR
  - 316 SS
- Insertion Fittings
  - ¾” or 1” MNPT Compression
  - Tri Clover Flange
  - 25 mm Port Fitting
- pH Calibration Buffers
- Conductivity Standards
- ORP Calibration Solution
- PVC Spray Cleaning Nozzle
- Handrail Mounting Kit
  - Immersion Tube
  - 2” mounting Clamps

Contact ECD

For over 30 years Electro-Chemical Devices (ECD) has been a recognized leader in industrial process instrumentation:

Liquid analytical sensors, controllers, transmitters, analyzers and electrodes.

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