# Lab and Portable



#### **HCA2** Chlorine Test Kit

- Measures Free and Total Chlorine, Chlorine Dioxide
- USEPA, DIN and ISO compliant Test Method
- Photometric measurement using a 525 nm LED
- 4 ml sample cell uses 60% less chemical per test
- Easy to use, Fast and Accurate
- Waterproof rating IP67
- 0 11 ppm range
- Other Measurements available: Ozone, PPA, HP, Bromine





#### H10C Handheld Conductivity, Salinity, TDS & Temp

- Large LCD Display with Backlight
- Displays Conductivity, Salinity or TDS and Temp.
- 4 wire Conductivity Electrode with TC
- Calibration stored in nonvolatile memory
- Adjustable TDS and Temp. Coefficients

#### H10 Handheld pH/ORP & Temperature Meter

- Large LCD Display with Backlight
- Displays pH or mV and Temperature
- Resolution of 0.1 mV in ORP or Ion Mode
- Automatic or Manual Temp. Compensation
- Automatic Buffer Recognition
- Calibration stored in nonvolatile memory



### L20 Laboratory Conductivity, TDS & Temp Meter

- Large LCD Display with Backlight
- Displays Conductivity or TDS and Temperature
- 2 wire Conductivity Electrodes with TC
- Calibration stored in nonvolatile memory
- Accepts 4 Cell Constants for improved accuracy

#### L20 Laboratory pH/ORP & Temperature Meter

- Large LCD Display with Backlight
- Displays pH or mV and Temperature
- Resolution of 0.1 mV in ORP or Ion Mode
- Automatic or Manual Temp. Compensation
- Automatic Buffer Recognition
- Calibration stored in nonvolatile memory

Specifications subject to change without notice.

Represented by:

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# Field Proven Industrial Analytical Solutions for the Water Industries



#### **About Us**

Electro-Chemical Devices (ECD) is a manufacturer of liquid analytical process instrumentation. Founded in 1977, ECD has been in business for over 40 years and has built its industry leading reputation by its commitment to our customers through this basic approach: Provide quality products, develop technical innovations and provide responsive, knowledgeable service.

Our products and services are used in some of the most demanding applications and industries, such as: Chemical, Food & Beverage, Oil & Gas, Mining, Power Generation, Pulp & Paper, Semi-conductor, Steel, Water and Wastewater. Understanding the demands of these applications, we have developed our products with unique features and technical advantages that are focused on quality, reliability, ease of use and maintenance resulting in lowering the total cost of ownership.

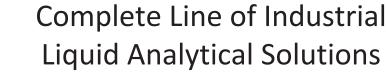
# Where Liquid Processes are Critical... ECD has the Application Specific Analyzers



# Field Proven Analytical Solutions for....

Water and Waste Water Management
Power Generation Industries
Drinking Water - Food & Beverage
Semiconductor Water Treatment
Petro-Chemical Refineries
Pulp & Paper - Metals & Mining
Aerospace - Military









## Solve

ECD Sensors are long lived with easily replaceable electrode cartridges that reduce maintenance time, cost and waste. There are unique field proven electrode formulations and designs for specific applications.

## Measure

ECD standard industrial products have design flexibility with materials and configurations for your specific installation requirements.

## Control

ECD products are offered as complete panel mounted products, stand alone batch analyzers, or transmitters with remote sensors.

# Support

We are here to help you to solve your requirements with our ECD support team of Chemists, Application Engineers, Service and Customer Service Specialists, and our worldwide network of trained local Sales Representatives.









pH, ORP, pION, Dissolved Oxygen, Conductivity, Resistivity



**General Purpose** 





pH, ORP, pION, Dissolved Oxygen, Conductivity, Resistivity, Turbidity, Suspended Solids, Free Chlorine, Total Chlorine, Chlorine Dioxide, Ozone, HP, PAA

#### **Capabilities**

Single or Dual Channel, Digital Protocol with interactive channel calculations

#### **Power**

Loop, 24 VDC, 100-240 VAC

#### Communication

4-20 mA, MODBUS RTU, optional HART®7 communication

#### **Outputs**

3 SPDT form 1C relays, user configurable as Hi/Lo Alarm, Fault or Timer





- Intelligent Sensor Design with Digital Communication
- Multiple Measurement
   Parameters
- Application Specific Electrode Cartridges
- Easily Replaceable, Long Life Electrode Cartridge
- Insertion, Immersion and Valve Retractable Designs
- Various Industrial Grade
   Materials of Construction

pH Selections: General Purpose (GP), High Temperature Cycling (HT CYCLE), High Purity Water (HPW), Non-Conductive Solutions (SUGAR), High Temperature (HT), Scrubber (SCRUB), Sulfide Resistant (SULF RES), Abrasive Slurry (SLUR), Solvent Resistant (SOLV RES), Fluoride Resistant (FLRD RES) ORP Selections: General Purpose (ORP), High Range (ORP-HR) Dissolved Oxygen Selections: General Purpose (GP-DO), Thick Membrane (TK-DO), Protected Membrane (FC-DO), part per billion (ppb-DO) Ion Selections: Ammonia (NH3), Ammonium (NH4), Bromide (BR), Cadmium (CD), Calcium (CA), Chloride (CL), Cyanide (CN), Cupric (CU), Fluoride (FL), Lead (PB), Nitrate (NO3), Nitrite (NO2), Potassium (K), Silver (AG), Sodium (NA), Sulfide (S)



# **Environmental Monitoring - Regulatory Compliance**



FC80 Free Chlorine, TC80 Total Chlorine, DC80 Dechlorination CD80 Chlorine Dioxide, HP80 Hydrogen Peroxide,

PA80 Peracetic Acid, OZ80 Ozone, FC80 Bromine Analyzers

- No Reagents Required
- Compliant with Chlorine EPA Method 334.0
- Automatic Flow Control and Large Flow Tubes eliminates clogs
- Panel Mounted System Plumb and Play Design
- 4 to 20 mA output, MODBUS RTU, HART, Relays, 2VDC or AC Power.
- Auto Spray Cleaning Option

## Chlorine & Disinfectant Analyzers

#### TRITON® DO82 Optical Dissolved Oxygen Analyzer

- Fluorescence Quenching Optical Dissolved Oxygen Analyzer
- Intelligent Sensor with Stored Calibration Data, interfaces with T80 Transmitter
- ULTRA Long Life Membrane Cap provides years of service
- Membrane Cap is Easily Replaceable, no need to return for factory repair
- Waterproof Fixed or Detachable Cable
- Immersion and flow through assemblies,
- Automatic spray cleaning systems.

## Optical Dissolved Oxygen



#### TRITON® TR86 Turbidity and Suspended Solids Sensor

- Compatible with T80 Transmitter
- Single or dual Channel
- Front Mounted or Side Mounted Optics
- Immersion, Flow Through or Valve Retractable installation
- NTU, FNU, mg/l, ppm or % Solids readout
- Intelligent Sensor with Stored Calibration Data
- Available in Multiple Ranges, < 40 NTU, 0-1000, 0-2000 and 0-4000 NTU

## **Turbidity and Suspended Solids**

#### HYDRA Ammonium Analyzer and HYDRA Nitrate Analyzer

- Ammonium as Nitrogen, NH4+-N
- Measurements, NH4, K, pH, Temp
- Auto Compensation for K+ interference and pH
- Nitrate as Nitrogen, NO3-N
- Measurements, NO3, Cl, Temp, NH4 or pH optional
- Auto Compensation for Chloride interference

**Ammonium and Nitrate** 

• Rugged PVC design with Integral Spray Cleaner



#### CE800 Cation Conductivity Analyzer Series

- Easily Maintained Resin Columns
- Configured with full featured T80 Transmitters and S80 Sensors
- Panel Mounted or Full Enclosures
- Multi-Stream options
- Optional pH and Resistivity Measurements
- Optional de-gassed unit configuration
- 4 to 20 mA output, MODBUS RTU, HART, Relays, 2VDC or AC Power.

# **Cation Conductivity Analyzer Series**

# Process Control-Analytical Measurement-Optimization



S80 Conductivity and S80 Resistivity Sensors

- Measurement range: Resistivity 0.00-50.00 meg-ohms
  - Conductivity 50  $\mu$ S 50 mS Inductive Conductivity 100  $\mu$ S - 1000 mS
- Temperature range: -20° 130°C (inductive 0° 80°C)
- Wetted Materials: 316L SS, PEEK, VITON
- Intelligent Sensor: Stores Identity and Calibration Information
- Insertion/Submersion with adjustable gland fittings and Valve Retractable Designs
- Wide Variety of Materials of Construction
- Inductive Conductivity with 3/4" entry
- Compatible with T80 Transmitter

## Conductivity/Resistivity

#### TRITON® DO90 ppb Dissolved Oxygen Sensor

- 316L Stainless Steel Body and Flowcell
- Easily Replaceable Electrode Cartridge
- Galvanic, Lead Silver measurement
- Long maintenance interval
- Easy calibration, 0 ppb Sulfite Solution and Air
- Intelligent Sensor with Stored Calibration Data
- Compatible with T80 Transmitter





CA6 Colorimetric Analyzers - Aluminum, Ammonia, Chlorine, Chloride, Chromium VI, Copper, Cyanide, Hardness, Iron, Manganese, Nickel, Nitrate, Nitrite, Phosphate, Total Phosphate, Silica, Sulfate, Zinc CA6 UV Analyzers - BOD, COD, TOC, Ammonia and/or Nitrate

- On-line sequential sampling analyzers
- Wall Mounted standard, Bench top stand is optional
- User friendly touchscreen menu structure
- Easy configuration of cycle times and auto calibration cycles

## Colorimetric & UV Analyzers

#### SMS22 Sulfide Ion / H<sub>2</sub>S in Water Monitoring System

- Sequential Sampling System, conditions, measures, neutralizes, drains and rinses
- pH Adjusted and Compensated Measurement the sample is optimized for the sulfide ion that only exists at high pH values
- ISE based provides a wide measurement range, 20 ppb to 500 ppm
- Economical, easily replaceable electrode cartridges
- Sample Neutralized After Measurement the highly caustic sample pH is reduced to a safe level near pH 8
- Low Reagent Consumption



# Sulfide Ion Analyzer / H2S in Water Analyzer



CA900 Titration Analyzers - Alkalinity, ppm Fluoride, ppb Sodium, and other customer specified measurements requiring titration

- On-line sequential sampling analyzers
- Wall Mounted standard, Bench top stand is optional
- User friendly touchscreen menu structure
- Easy configuration of cycle times and auto calibration cycles
- Low Reagent Consumption
- Web Enabled Functionality

**Titration Analyzers**