



ECD Analytical

Your Liquid
Measurement Expert



Field Proven Industrial Analytical Solutions for the Water Industries

ECD ELECTRO-CHEMICAL DEVICES

ECD
ANALYZERS

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.

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



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.

Complete Line of Industrial Liquid Analytical Solutions



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. Our Analyzers utilize the same approach having been developed specifically from customer field 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.



Model T80 / X80 / LQ800

Universal Transmitters, Analyzers and Controllers



Model T80
General Purpose
CSA Approval



Model X80
Hazardous Location
FM, ATEX, IECEx Approvals

Plug and Play selection with any S80 Sensor with T80 or S88 Sensors with X80 Transmitters

T80 or X80 with pH, ORP, pION (see list), Dissolved Oxygen, Conductivity, Resistivity, TDS, Free Chlorine
Additionally with T80 - Turbidity, Suspended Solids (TSS), Total Chlorine, Chlorine Dioxide, Ozone, HP, PAA, Chlorophyll, UV (SAC, BOD, COD, TOC corr.), Oil in Water, and more

Capabilities

Single or Dual Channel, Digital Protocol with interactive channel calculations

Power

Loop, 24 VDC, (T80, 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



Model LQ800
Multi Channel Controller
(With S80 Sensors - Refer to Data Sheet for complete specifications)

Model S80/S88 Series Intelligent Sensors

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



Model S80/S88 - pH, ORP, pION, DO, Conductivity, Resistivity, UV, OIW Sensors

- Intelligent Sensor Design with digital communication, stores measurement, calibration Information
- Multiple Measurement Parameters - pH, ORP, pION, DO, contacting & inductive conductivity, more
- Application Specific Electrode Cartridges, long life and easily replaceable
- Insertion/Submersion with flow cells, adjustable gland fittings and Valve Retractable
- Wide Variety of Industrial Materials of Construction sizes and lengths

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 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® TR80 or TR82 Turbidity and Suspended Solids Sensors

- Compatible with T80 / X80 Transmitters or LQ800 Controller
- Single, Dual or Multi Channel
- Front Mounted Optics for TR82 and with wiper cleaner for TR80
- 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, 0-4000 NTU, Suspended Solids

Turbidity and Suspended Solids

HYDRA-DS Ammonium / Nitrate Analyzers

- 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
- Auto Compensation for Chloride interference
- Rugged design with Integral Spray Cleaner

Ammonium and Nitrate

UV80 and OIW80 Series Sensors

- UV Optical - SAC, TOC, BOD, COD
- OIW - Fluorescence Sensing Technology
- S80 Digital Technology for easy integration
- Advanced wiper design cleaning optics
- Rugged SST housing
- Multiple installation methods
- Factor Calibrated

UV and Oil in Water Sensors



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 and X80 Transmitters

ppb Dissolved Oxygen

Process Control-Analytical Measurement-Optimization



Sodium Analyzer - Model NA6

- ISE Method Technology and easy touchscreen operation
- 0 to 10 ppb range with upper limit of detection to 10 ppm
- Multiple sample streams 1 to 4
- Fully automated with auto calibration
- Dual compartment enclosure separates electronics for wetted parts
- Fast Loop Reservoirs for fast sample processing and sample loss detection

ppb Sodium Analyzers

DG800 / CE800 Degassed Cation / Cation Conductivity Analyzer Series For Power Generation Industries

- Easily Maintained Resin Columns
- Configured with full featured T80 / X80 Transmitters and S80 / S88 Sensors
- Panel Mounted or Full Enclosures
- Multi-Stream options
- Optional pH and Resistivity Measurements
- Optional degassed unit configuration
- 4 to 20 mA output, MODBUS RTU, HART, Relays, 24 VDC or AC Power.



Degassed - Cation Conductivity Analyzers



CA6 Colorimetric Analyzers - Aluminum, Ammonia, Chlorine, Chloride, Chromium VI, Copper, Cyanide, Hardness, Iron, Manganese, Nickel, Nitrate, Nitrite, Phosphate, Total Phosphate, Silica, Sulfate, Zinc
UV6 - UV Analyzers - corr. BOD, COD, TOC, Ammonia 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

TOC Analyzer - Model 3S

- Dual compartment enclosure separates electronics for wetted parts
- UV Persulfate Method Technology with easy touchscreen operation
- Multiple Ranges from 0 to 5 mg/l to 20,000 mg/l
- Dilution modules for higher ranges
- Automatic ZEROGAS checks, autoclean, digital flowmeter
- Fast Loop Reservoirs for fast sample processing and sample loss detection
- Integrated carrier gas via internal air compressor -no need for external air treatment



Total Organic Carbon (TOC) Analyzers



CA900 Titration Analyzers - Alkalinity, Fluoride, Sulfide Ion, H₂S in Water and other specified measurements requiring titration and Ion measurement

- 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

Alkalinity-Fluoride-Sulfide-H₂S in Water Analyzers



HCA2 Plus Test Kit

- Measures Free and Total Chlorine, Chlorine Dioxide and more
- USEPA, DIN and ISO compliant Test Method
- Photometric measurement using a 525 nm LED
- Easy to use, Fast and Accurate
- Waterproof rating IP67
- Free Chlorine 0 - 12 ppm
- Total Chlorine 0 - 12 ppm
- Chlorine Dioxide 0 - 6 ppm
- High Range Free Chlorine 1 - 200 ppm
- Ozone 0 - 2 ppm
- PAA 2 - 590 ppm
- HP 0.5 - 130 ppm



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.

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