LQ800 Multi-Channel Controller

ELECTRO-CHEMICAL DEVICES

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Multi-Parameter Controller	
• Multiple Analytical & Process Measurements	**Complete Measuring & Control System:** Up to 8 Smart Digital Analytical & Process Sensors
• Built-in Analytical Calculations	**Easy Selectable Mathematic Functions:** Automatic measurement conversions for dissociation, cross-sensitivity, concentration
• Multiple Outputs	**Field Programmable Outputs:** Digital Communication, Multiple Relays, Discrete Digital Outputs, 4-20 mA Outputs, Data Logging
• Expandable	**Create Larger Control Systems:** Inter-Connect to other LQ800 Systems and ECD On-Line Analyzers
• Web Enabled	**Access via Web:** Remote Monitoring and Interface with Personal Handheld Devices

Description

The Model LQ800 multi-Channel Controller provides a complete analytical measurement and process solution. The LQ800 platform is designed to operate with up to eight digital analytical and process sensors. The measurement parameters include well over 50 unique separate liquid measure sensors. These measurement include: pH, ORP, Conductivity, Resistivity, Dissolved Oxygen, Selective Ion, Turbidity, Flow, Level, and many others in varying configurations for a given application. A complete list is found on the following page. The LQ800 Controllers digitally communicates with any ECD Intelligent Sensor, automatically configuring the transmitter's menus and display screens to the measured parameter.

SENSORS - The Model S80 Family of Intelligent Sensors facilitate two way communication with the LQ800. The type of sensor, identity and serial number are stored in the sensor's memory along with calibration registers. Sensors are calibrated at the factory so they are ready to use when connected, are waterproof and submersible with all internal components epoxy encapsulated inside the housing and have various process fittings and configurations.

DISPLAY & INTERFACE- The LQ800 features a large easily viewed color touchscreen display. The display and interface can be Web Enabled with remote monitoring and activation with personal handheld devices and computers with access via the Web. Self Diagnostic functions with fault alarms

MENUS - Menu navigation is intuitive and accomplished using the large touchscreen display. The primary selections are the Multichannel Main Display, Single Channel Detail Screen, Calibration menu, Configuration menu, Info Screens and Simulate menu.

CALIBRATION - The ECD S80 sensors come precalibrated from the factory. Field calibrations are easily performed with the LQ800. The Calibration menu includes the Auto Cal function, a two point calibration, the Standardize function, a single point calibration or the Manual Calibration, where previously determined Offset and Slope values are entered manually into the LQ800.

CONFIGURATION - The Configuration menus allow the Display and Output functions and the sensor's characteristics to be configured or adjusted. Display screens include the Hold function, Graphical Display Style, Back Light and Contrast adjustments, Labels/Tags for naming the transmitter, Password Protection and a Factory Default reset. Output screens include setting the digital comm output, setting the 4-20 mA Ranges and fault settings and configuring the Alarm Relays.

POWER SUPPLY and OUTPUTS - The LQ800 is available as a 24 VDC or 100/240 VAC powered controller. Available options include: (8) 4 to 20 mA outputs, (8) configurable Relays (for Alarm, activated timers, control, and Fault), and Ethernet communication.

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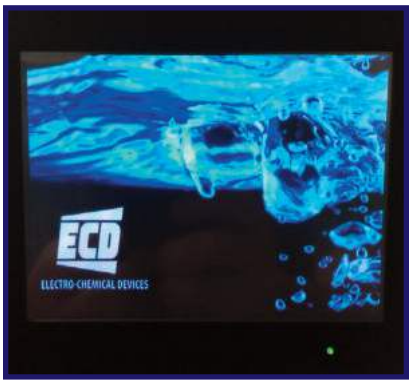
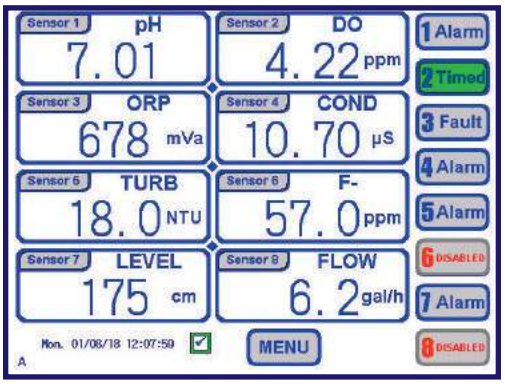
Product Specifications

Part Number (Standard)	LQ800-80-288-01			
Measurements Available (consult factory for additional liquid analytical measurements and process sensors)	pH	Ammonium	Fluoride	Sodium
	ORP	Ammonia	Chloride	Cadmium
	Conductivity	Total Chlorine	Bromide	Sulfide
	Resistivity	Free Chlorine	Silica	Sulfate
	Dissolved Oxygen	Chlorine Dioxide	Chromium VI	Calcium
	Turbidity	Peracetic Acid	Silver	Cyanide
	Total Suspended Solids	Ozone	Copper	BOD/COD
	Total Dissolved Solids	Hydrogen Peroxide	Zinc	TOC
	Salinity	Nitrate	Iron	Temperature
	Phosphate	Nitrite	Nickel	Level
	Total Phosphate	Potassium	Manganese	Flow
Mounting	Wall Mounting Standard - optional Handrail, Stand, and/or Sunshield			
Sensor Temperature	Varies - Consult ECD Sensor Data Sheets for full specifications			
Display	Color Touchscreen - 4.6 in W x 3.5 in H / 120 mm W x 90 mm H - TFT Color 640 x 480 pixel			
Ambient temperature	15˚ to 130˚ F / -10˚ to 55˚ C			
Weather Rating	NEMA 4X / IP65			
Alarm relays	8 Configurable Relays SPDT, 15 A at 250 VAC for resistive loads.			
Analog Output	Up to (8) 4-20 mA outputs, 600 Ω maximum load			
Communication	Ethernet Digital Communication			
Data Logging	Integrated, Selectable, download via USB			
Power Supply	110-240 VAC /80VA / 50-60Hz or 24 VDC Nominal			
Dimensions	17 in W x 11.7 in H x 9 in D / 43cm x 30cm x 23cm			
Weight	20 lbs / 9 kg			

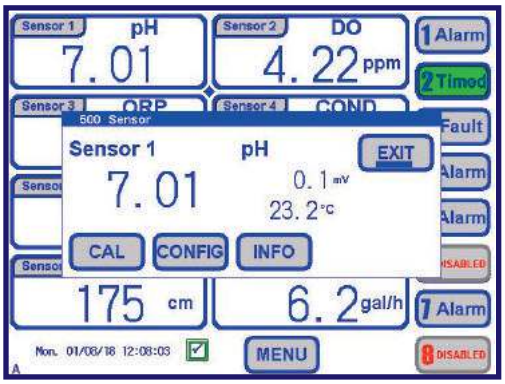
Start up Display Screen



8 Channel Home Screen



Channel 1 Detail Screen



Specifications subject to change without notice.

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CERTIFIED ISO9001 QUALITY SYSTEM