LectroCount LCR Electronic Registers
For Load Rack Applications
Premier products, premier performance

Liquid Controls is recognized throughout the world for its highly accurate and reliable flow meters and electronic registers. As a proven leader in the field of liquid measurement, our engineering, manufacturing and application expertise allow us to provide you with complete integrated solutions that work, regardless of your choice of flow meter technology; Positive Displacement, Turbine, Electro-Magnetic, Mass, etc.

Liquid Controls electronic registration equipment has been widely used in the fluid measurement and control industries for over two decades. Continuous improvements in electronic technology have allowed LC to merge the benefits of increased productivity, improved accuracy and error reduction with products that are now also smaller, more durable, flexible and cost effective.

Applications

Terminal Loading/Unloading

- Road Tanker
- Railcar
- Barge
- Ship

Bulk Plant

Petroleum Processing

- Wellhead
- Refinery

LectroCount LCR for Bulk Plant and Terminal Applications

The LectroCount LCR is an electronic register that replaces the mechanical counter, calibration gears and adjuster mechanism of a traditional mechanical recording system. LCR utilizes Weights & Measures approved hardware and software. The LCR is available with our internal or external pulser and accepts direct pulse input from PD, amplified turbine, electro-magnetic and mass flow meters. The LCR offers standard scaled pulse output, RS-232 and RS-485 communications and heavy duty transistor switches for switching external loads. All programmable configuration and calibration data is stored in non-volatile flash memory. The system is designed to interface to an external computer at any time.
LectroCount LCR provides numerous features that make it an ideal flow computer for load rack and bulk terminal applications. Special features include the following:

**Features**

- Weights and Measures approved
- Operator-friendly controls
- High visibility display

**Environmental**

- -40°F to 158°F
- NEMA 4X enclosure

**Safety**

- Class I, Div 1, Groups C & D

**Multi - Point Calibration**

Virtually eliminates deviations in accuracy caused by variations in flow rate. Increases accuracy by improving meter linearity over entire flow range.

**Multi - Product Calibration**

Changes in fluid characteristics (i.e. multiple fluids, variable viscosities, differences in lubricity, etc.) can produce variations in meter accuracy. Multi-product calibration capability increases the accuracy of a flow meter on multiple fluids over the entire flow range.

**Electronic Temperature Volume Compensation to API Tables**

Accurately corrects volume measured to a base temperature. ETVC utilizes an RTD for measuring temperature and is 100 times more responsive than a traditional mechanical temperature compensator.

**Presetting & Flow Rate Display**

Software included with LCR provides the ability to meter preset deliveries and to check flowrate at any time during the delivery.

**Increased Security of Metrologically Significant Data**

LectroCount LCR systems have OIML, NIST and Canadian Weights & Measures approved dispensing, recording, printing, calibration and audit trail software and hardware.

**Increased Security of Transaction Record**

LectroCount LCR controls the printing of the ticket/receipt/report irrespective of other peripherals including third party PC hand held computers, PLC, Card Lock, or other interface devices.

**Increased Security of Delivery System**

LectroCount LCR controls a variety of fail-safe system components which prevent unauthorized delivery or system bypass minimizing potential for fraudulent activity.

**Modular Designs with RS 232 and/or 485 Communication Capability**

No planned obsolescence, adapts to your system requirements today and in the future, with upgrade capabilities at minimum cost.

**Increased Reliability**

Highest quality components, state-of-the art manufacturing and ISO 9001 accreditation result in longer MTBF (Mean Time Between Failure) and extended service life for all LC electronic products.
Optional Equipment

**Features**
- Offers alpha/numeric output for various print formats.
- Stand-alone design allows for easy upgrade or replacement as advancements in technology dictate.
- Photo electric eye for ticket/paper sensing.
- Includes power and communication cables for flexibility of mounting.
- Operating temperature range -40°F to 158°F (-40°C to 70°C)

**Ticket Printer**
Epson™ printers offered with LectroCount LCR systems are industry standards for nearly all mobile and stationary applications. Printer generates an imprinted record of the transaction which is legal for use in resale applications.

**Electronic Temperature Volume Compensator**
Electronically compensates for changes in product volume based on product temperature. Automatically corrects measured volume to a standard base temperature of 60°F (15°C).

**Presetting (lap pad)**
VT-100 terminal emulator that programs and displays all operational functions of LCR Electronic Register.

**Pulse Output Device**
Weights and Measures approved, provides a high resolution, unscaled pulse stream. The meter rotor is magnetically coupled to an optical encoder that has a signal which is directly proportional to the liquid flow through the meter. No dynamic seals to fail or leak. Easily adapts to most remote totalizers, batch controllers, computers and other scalable pulse receiving devices.
Adapters - For Retrofit of LCR to other Meters

A selection of drive shaft couplings and mounting brackets are offered by Liquid Controls to support LCR Electronic Register applications with other manufacturers’ meters as shown below.

### Drive Shaft Couplings for LCR with Integral Pulsers

- **To Smith Meter**
- **To Daniel/Tolkheim Meter**
- **To Brooks Meter**
- **To Neptune Meter**

### For Custody Transfer Applications

Weights & Measures approved electronic systems provide basic resettable counter, totalizer, valve control and rate of flow display. Optional features include electronic temperature volume compensation, ticket printing and more.

More than just a viable alternative to mechanical registration, Liquid Controls Electronic Products truly represent a step forward in flow measurement and control instrumentation. Whether you choose to enhance your present system with new LC electronic components or select one of our fully integrated Electronic Systems, Liquid Controls is your direct connection to a full complement of outstanding features and benefits as well as to a world of possibilities.
Almost fifty years ago, Liquid Controls set a new standard of excellence in engineering and building the finest flow meter products possible, starting with metering aviation fuel for the United States Air Force.

Since that time, the industry base we serve has grown, broadened. Our product line has expanded to include a wide variety of flow meters, accessories and related items distributed worldwide. But our commitment to excellence will never change. The professionals at Liquid Controls are driven to bring you products that perform efficiently and accurately, with minimum maintenance for years to come. Delivering everything you’d expect from the very best—that’s our goal.

A good fit

In 2001, Liquid Controls joined the IDEX team of companies. IDEX is a leader in the manufacture of a broad range of pump products, dispensing equipment and other engineered technologies. Maintaining a theme of leadership, IDEX delivers Innovation, Diversity and Excellence to thousands of valued customers around the world.

LIQUID CONTROLS
A Unit of IDEX Corporation
105 Albrecht Drive, Lake Bluff, IL 60044-2242
1.800.458.5262 • 847.295.1050
Fax: 847.295.1057
www.lcmeter.com

Printed on recycled paper using soy inks