

LC-400 Level Monitoring System

Originally developed for the Offshore & Marine markets, LevelCom products have a proven record of success in 20 years of use in harsh environments.

The LC-400 is a microprocessor based pulsed bubbler. It is one of the most accurate and reliable level monitors on the market.

The LC-400 eliminates inconsistent readings and maintenance costs found with submersible pressure transducers. All controls are outside the tank, eliminating the need for tank entry certification or well tear down to replace a failed sensor .

- Ground Water
- Leachate
- Fuels & Oils
- Corrosives
- Acids
- Suspended Solids



FEATURES

- ◆ Automated Operating Cycles
- ◆ SCADA
- ◆ Alarms (high high to low low)
- ◆ Control Relays
- ◆ Programmable Specific Gravity
- ◆ Self Diagnostics
- ◆ Analog, Modbus, Ethernet Communication Options

APPLICATIONS:

- ◇ Agitated Tanks
- ◇ Foaming Liquids
- ◇ Hazardous
- ◇ Waste Water
- ◇ Process Control
- ◇ Chemical Processing

- Easy Installation and Setup
- Monitors without electronics (sensors) in the liquid
- Eliminates replacement costs due to failed pressure transducers
- 4 Alarm set points– high to low
- Configurable Relays for Pump or Valve Operation
- Displays Depth, Weight or Volume--English or Metric
- 10 point configuration table for irregular shaped tanks
- Outdoor rated enclosure with several door options
- Automatic atmospheric sensor zero
- Programmable Purge cycles
- Long service life with low maintenance
- Made In USA

LC-400 FEATURES

- Measures liquid levels without electronics (sensor, cable or transducer) in the tank
- Eliminates common sensor failure points
- Provides consistently accurate fluid level readings
- Reliable performance
- Greatly reduces maintenance costs.

Installation requires only a connection to air supply, electrical power source and bubbler tube. Only the stationary bubbler tube and the purge gas come in contact with the liquid, making this system ideal for applications involving hazardous, corrosive, liquids and slurries.

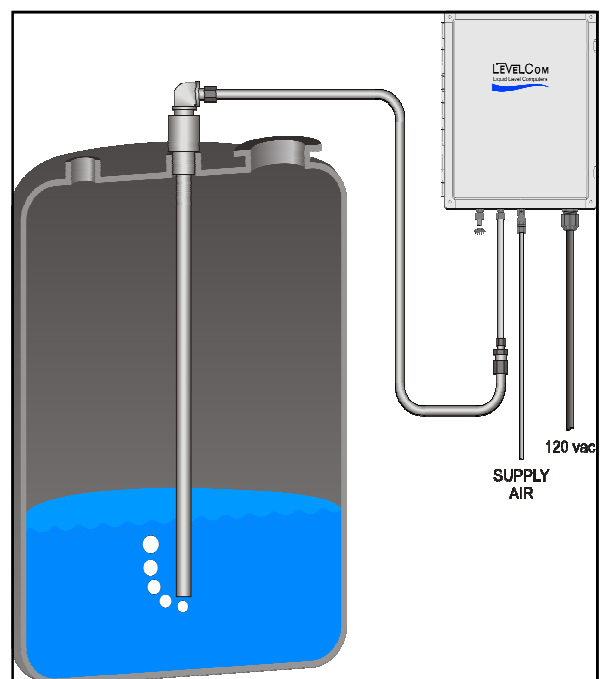
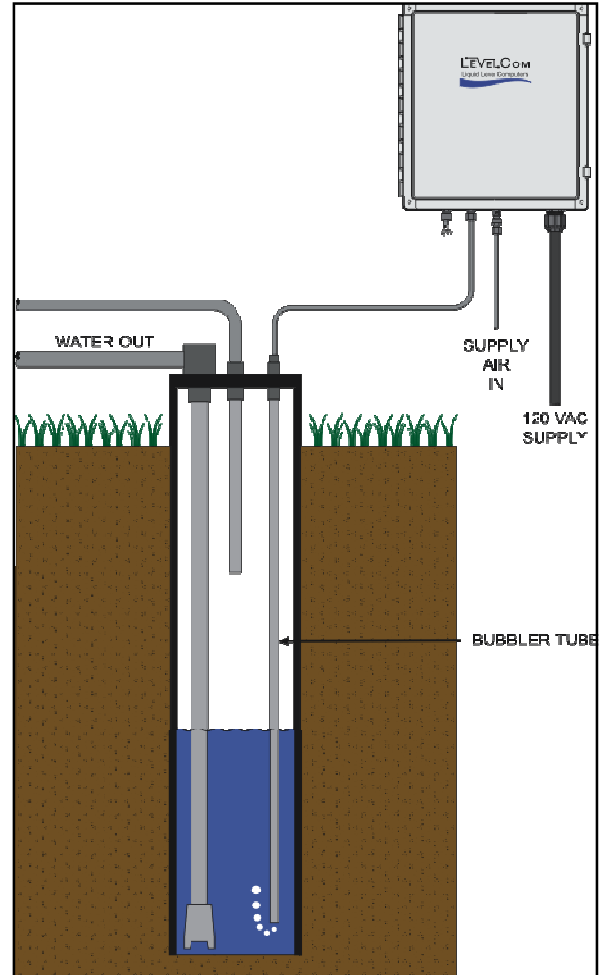
For hazardous area installation, the LC-400 controls can be located up to 600 feet away from the tank. The pneumatic tubing isolates the hazardous from the safe area.

Service if needed is done outside the well head or tank. All controls are above the tank eliminating the need for costly tear downs, tank cleaning and chemist certification making maintenance and service quicker, safer and more economical.

In normal mode the LC-400 automatically zeros its sensor to atmosphere every 30 minutes. The bubbler tube is purged at regular intervals to keep the line clear. Self-diagnostics check the system for both pneumatic and electronic faults. If a problem is found, the LC-400 will display the appropriate error message or activate an alarm to alert the operator.

All values and alarm set points are displayed in either English or Metric units of measure, (depth, volume or weight) on the digital display.

The LC-400 has analog output (4-20 mA), Modbus, Profibus and Ethernet communication options.



OPTIONS

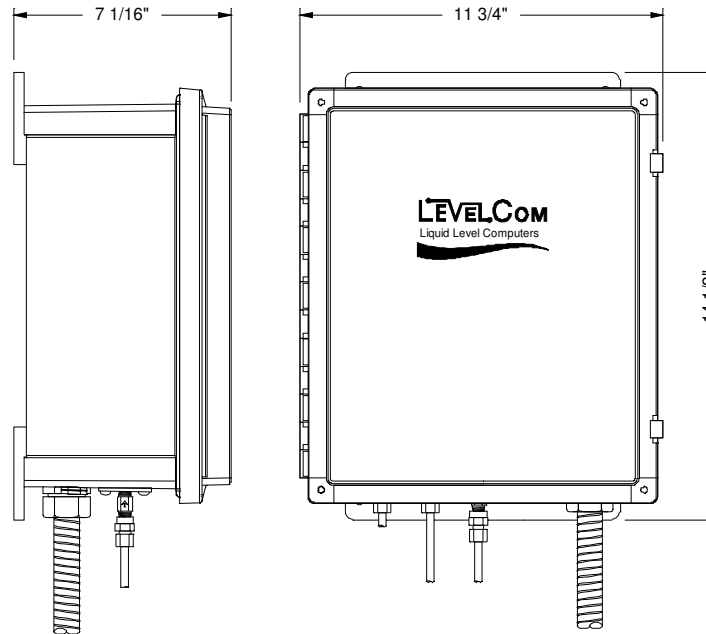
Depth Range — Ft.	0–32	0-62	0-92	0-180
Meters	9.45	18.9	27.43	54.86
Communication RS 232/422/485	Modbus	Profibus	Modbus TCP/IP	Devicenet
Alarm & Control Relays	4 programmable internal set points, Control 1 & 2, On / Off; 2 – SPDT Form C relays (“rated “Pilot Duty”)			
Analog Output	4 to 20 mA			
Automatic Specific Gravity	Requires 2nd bubbler tube installation			
Alternate NEMA X Enclosures	Stainless Steel 316 Series, Fiberglass, Steel, Transparent doors available			
Data Logger	USB, Others available, quoted per application			
Air Box	Compressor, metal enclosure, regulator for remote installation			
Panel / Cabinet Fabrication	Made to customer specifications, complete with tubing, regulator and wiring,			

SPECIFICATIONS

Approvals	UL Listed			
Power	120VAC / 100mA / Fuse – 1A			
Supply Air	Regulated pressure varies with input sensor range (see below). Filtered to 40 microns			
Temperature	Operating range: -20° F to +140° F (-28.88° C to +60° C)			
Enclosure	UL listed NEMA 4X - Non Metallic			
Fittings	Brass or 316 Series Stainless Steel			
Dimensions	13.5” (34.3cm) H x 11.5” (29.2cm) W x 7.0” (17.8cm) D			
Alarm Set Points	Four (4) programmable internal set points (Relay option required for remote alarm activation)			
Control Set Points	Four (4) programmable set points (Control 1 & 2 On/Off) (Relay option required)			
Security	User defined 1 - 9 character password protection			
Tank Sensing Range (H ₂ O)	0 - 31 ft. (9.45m)	0 - 62 ft. (18.9m)	0 - 90 ft. (27.43m)	0 - 180 ft. (54.86m)
Accuracy (Full Scale)	+/-0.2% FS (+/-0.75”)	+/-0.2% FS (+/-1.5”)	+/-0.2% FS (+/-2.2”)	+/-0.1% FS (+/-2.2”)
Resolution (Full Scale)	0.1” (2.54mm)	0.2” (5.08mm)	0.3” (7.62mm)	0.1” (7.62mm)
Supply Air Pressure	20 - 35 psi	30 - 50 psi	45 - 60 psi	85 - 100 psi

One LevelCom LC-400 replaces all of these components:

- Pressure Transducer & Cable
- Panel Meter /Display
- Intrinsic Barrier/ Signal Conditioner
- Signal Amplifier



TMS is the leader in developing and refining pulsed bubbler technology over the past 20 years. LevelCom products have earned a reputation for being a very accurate, dependable monitoring system with a long trouble free service life.

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