

Water Level Monitoring System

for ground water, hazardous, corrosive liquids with optional data logger and pump controls in wells, tanks, sumps, reservoirs and settling ponds



- Monitors with no electricity or electronics down in the well
- Easy Installation & setup
- Depth, Volume or Weight—Engineering units
- 4 Alarm set points— high high, high, low, low low
- 2 Data Logger options
- 2 configurable relays for Pump Operation
- Accuracy — +/-0.2% FS (+/-0.75")
- UL Listed
- Field programmable with Specific Gravity adjustment
- NEMA 4X enclosures

Replace a \$30.00 pipe or a \$ 950.00 submersible sensor?

The one constant with submersible pressure sensors is not “if “ they are going to fail but “when”.

The Levelcom LC-400 measures liquid levels without the need for a sensor, cable or transducer in the well, eliminating common failure points while providing accurate fluid level readings and dependable performance. Any maintenance or service needed, can be performed from safely above ground, reducing costs and minimizing risks.

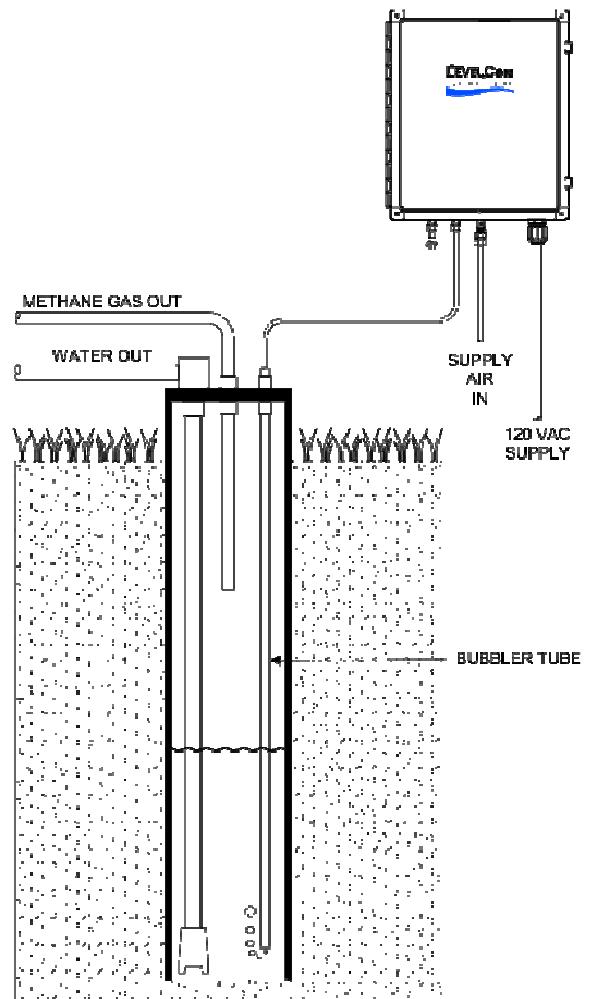
The LC-400 uses TMS LevelCom’s **“Advanced Bubbler Technology”** which combines computer and pulsed bubbler technologies, enabling automated operating cycles, SCADA and self-diagnostic capabilities. All values and alarm set points are displayed in either English / Metric units of measure, (depth, volume or weight) on the digital display.

Installation requires only a connection to an air supply, electrical power source and bubbler tube (PVC, ABS, fiberglass, stainless steel, etc.) to provide precise level indication. Only the stationary bubbler tube and the purge gas come in contact with the liquid, making this system ideal for applications involving hazardous locations or liquids which are highly corrosive, viscous, hot, explosive, or in slurry.

The LC-400 has several modes of electronic output which are compatible with almost all analog instrumentation, both local and remote indicators, HMI’s, data loggers, recorders and controllers.

In normal mode, the LC-400 automatically zeros its sensor to atmosphere every 30 minutes. The bubbler tube is automatically purged at regular intervals to keep the line clear. Built in self-diagnostics check the system for both pneumatic and electronic faults. If any problems are found, the LC-400 will display the appropriate error message or activate an alarm to alert the operator. For hazardous area installation, the controls for the LC-400 need not be located at the well head; they can locate up to 600 feet away in a safe area. The pneumatic plumbing isolates the hazardous from the safe area.

Levelcom Bubbler Systems and can be equipped with a Differential Pressure option that will allow the LC-400 to Function in closed tanks.



TMS has been developing and refining pulsed bubbler technology for over 18 years. The result is a measurement system that is more robust and accurate with a longer service life than most other level measurement technologies.



OPTIONS

Depth Range—feet <i>(meters)</i>	0-32 <i>(9.4)</i>	0-62 <i>(18.9)</i>	0-92 <i>(27.4)</i>	0-180 <i>(54.8)</i>
Power Options	120VAC	24VDC		
Communication RS 422/232	Modbus	Profibus	Modbus TCP	Device net
Alarm / Control Relays	Four programmable set points; Control 1&2 On/Off. 2 - SPDT "Form C" relays (contacts rated "Pilot Duty")			
Analog Output	4-20 mA			
Automatic Specific Gravity				
Differential Pressure				

DATA LOGGERS

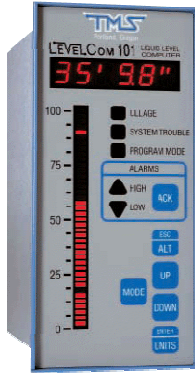
Part #	Function	Range	Accuracy Typical	Readings	Battery	Battery Life
USB	Current Loop	4 to 20 mA	+/- .5%	64,000	Lithium CR2032	1 year

SPECIFICATIONS

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

Approvals	UL Pending
Power	115VAC / 100mA / 60Hz - Fuse: 2A 24VDC / 500mA – Fuse: 2A
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
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

For more information on Levelcom products and complete specifications , see our website.



Bar Graph—Meters, Displays



Pressure Transducers



UL 508 Panels



Custom Automation & Controls

LEVEL.COM
LIQUID LEVEL COMPUTERS

A division of



6040 N. Cutter Circle
Suite 302
Portland, OR 97217

PHONE: 503.285.8947
FAX: 503.285.1379
EMAIL: info@tms-usa.com