

KING-GAGE® LP3

Multiple Tank Level System

Level Measurement

Inventory Monitoring

Process Integration

- Allen-Bradley DH485, DF1, Modbus TCP/IP, Ethernet, ASCII
- Available in 8-Tank, 16-Tank, 24-Tank, 32-Tank Configurations
- Rugged HMI Color TFT Touchscreen
- Preconfigured Tank Capacity Database



Complete level monitoring system

The new KING-GAGE® LP3 tank level system is designed for greater flexibility within today's process environment. Combining data acquisition with a complete HMI display and plant integration solution, KING-GAGE LP3 system works in processing environments with multiple tanks or process vessels requiring level measurement and inventory monitoring. The LP3 system can eliminate the need for dedicated I/O typically employed by a PLC or other process control device.

Multiple Tank Configurations

These multiple tank systems are available in 8-tank, 16-tank, 24-tank and 32-tank configurations. Factory installed hardware (Vdc loop power, analog input modules) provide for virtual plug and play installation. Plus, the LP3 operating system makes it easy for your personnel to set display preferences.

The analog input module(s) provide complete processing of the transmitter signal loops (4-20 mA) when used with two wire level sensors or D/P transmitters. The input module scales the transmitter signal for specific tank geometry to calculate a volumetric (or mass) measurement.

Operator Interface HMI

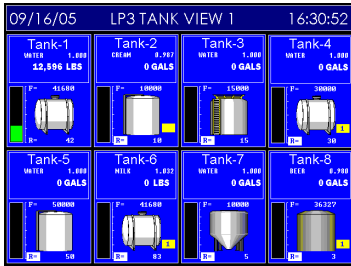
An intuitive operator display panel depicts tank levels with capability to include temperature and/or setpoints (alarm) monitoring. Change to the spreadsheet view for product scheduling or inventory reporting. Specific tank status details are available in a simple drill-down page for commissioning or troubleshooting. The 10.4-in. TFT color display is mounted within a stainless steel enclosure or as a flush mounting remote panel.

LP3 system software affords a high degree of accuracy and security. HMI display configurations and pre-configured tank scaling data are stored in separate FLASH memory. Specifically, tank scaling profiles are isolated within our iButton datapack (nonvolatile FLASH memory).

Process Control Integration

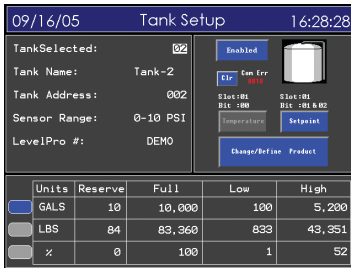
The built in digital communications capability of the LP3 system can simplify the integration of tank level into your process control environment. The LP3 has provision for Ethernet, USB, RS485, RS232C to support up to 4 high-speed serial ports to communicate to PLCs, SCADA systems or even your enterprise network.

Network protocols directly supported by LP3 include Modbus TCP/IP, Allen-Bradley DF1, Allen-Bradley DH485 and KING-GAGE KingBus ASCII. Additionally, LP3 can provide remote viewing over Ethernet using standard HTML browsers (Internet Explorer, Netscape, etc.) via its integrated web server. Imagine inventory data available at remote locations within your facility or beyond.



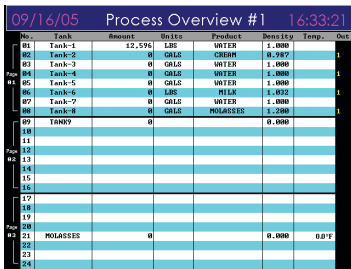
LP3 Tank View Display

Up to 8 concurrent tanks graphically displayed on each screen (with support for four separate Tank View pages). Combine optional temperature and level set points for a complete monitoring solution designed to be user-friendly. A simple bargraph icon conveys tank level status at a glance.



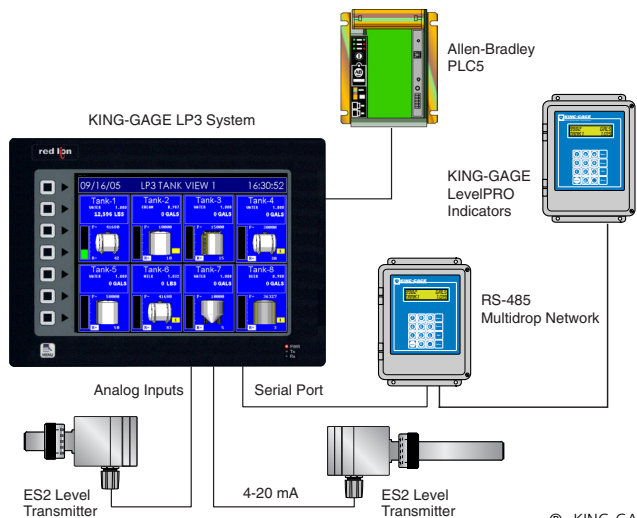
LP3 Drill Down Detail

The color touchscreen allows quick access to details including engineering units selection, tank capacity, and communications status. Configuration settings are readily visible from each tank's detail screen. (Access to these settings is password-protected to ensure data integrity.)



LP3 Inventory Status Display

Concurrent status for up to 24 tanks is available from the inventory display screen. It is especially suited to any reporting needs you may have. Presented as a concise listing by tank name, current inventory (volume or weight), product designation and temperature*.



LP3 Specifications

Display Panel

10.4-in. TFT resistive touchscreen LCD, 640 x 480 VGA, 256 colors

Accuracy

Less than + 0.15% FS, typical. (Less than + 0.20% FS, worst case) Includes linearity, hysteresis, non-repeatability errors.

Electrical

Power Requirements: 110-120 Vac, 50/60 Hz
Signal Input (transmitters): 4-20 milliamperes; two wire Input Channels: 8-32 (w/ excitation option)

Ethernet

Ethernet TCP/IP, Modbus TCP/IP

RS-485

Serial communications; Allen Bradley DH485, DF-1, ASCII (kingbus)

Operating Temperature Range

32°F to 125°F / 0°C to 50°C

Standard System Configurations

8-tank system; 16-tank system; 24-tank system; 32-tank system (includes HMI, analog inputs, power supply)

Enhanced System Configurations

8-tank system; 16-tank system; 24-tank system; 32-tank system (includes HMI, analog inputs, RTD inputs, analog outputs, power supply)

* - temperature (RTD inputs) and set points (analog outputs) are optional hardware configurations.



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