

KING-GAGE® LP1

Tank Level Indicator

Tank Liquid Level

Inventory Monitoring

Process Integration

Single Tank Digital Display

- Calculates volumetric tank inventory
- Dual line high visibility LED display
- Use for vertical or horizontal tanks

The new KING-GAGE® LP1 Tank Level Indicator combines intelligent signal processing and data acquisition for seamless integration in process control. This high precision digital tank level indicator will provide continuous measurement of liquid inventory in storage or processing tanks. It can calculate tank inventory on the basis of hydrostatic pressure (created by liquid depth) or from direct level measurement (such as radar or ultrasonic).

The LP1 single tank digital indicator features a dual line LED providing full 6-digit display in large 0.6" (15mm) characters for easy viewing with a smaller second line identifying readout units. Tank level is shown directly in the unit of weight or volume (as specified). You get accurate level or tank inventory regardless of tank shape (even horizontal tanks with dish ends).

The LP1 indicator accepts the proportional 4-20 mA signal from a tank level transmitter. LP1 indicators express tank level directly in engineering units. The indicator references a capacity profile to correlate transmitter output to actual tank geometry. The indicator then formats the resulting value directly as the total weight or volume of liquid in the tank. All application parameters are factory preprogrammed (based on supplied application data) into nonvolatile memory. This means there are no user conversion factors involved or scaling points to enter during installation.

The KING-GAGE LP1 digital tank level indicator employs a 24-bit A/D architecture for better than $\pm 0.03\%$ accuracy (± 1 count). Consistent and repeatable level measurement ensures better control of your process and improved inventory reporting.

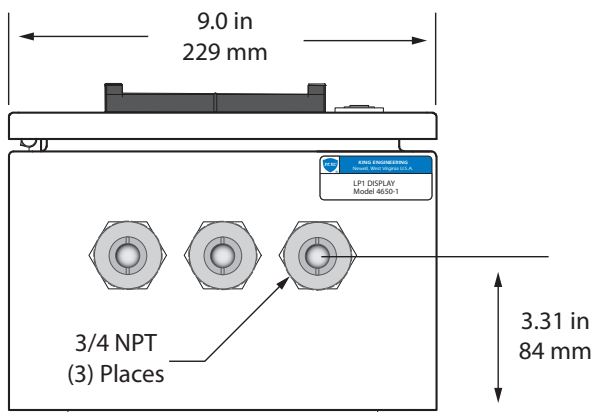
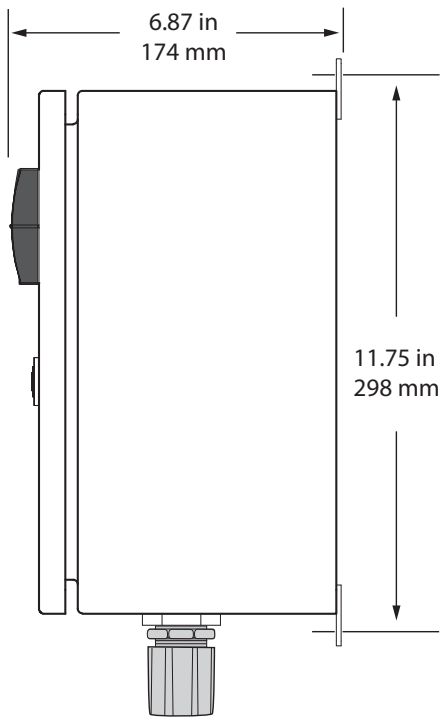
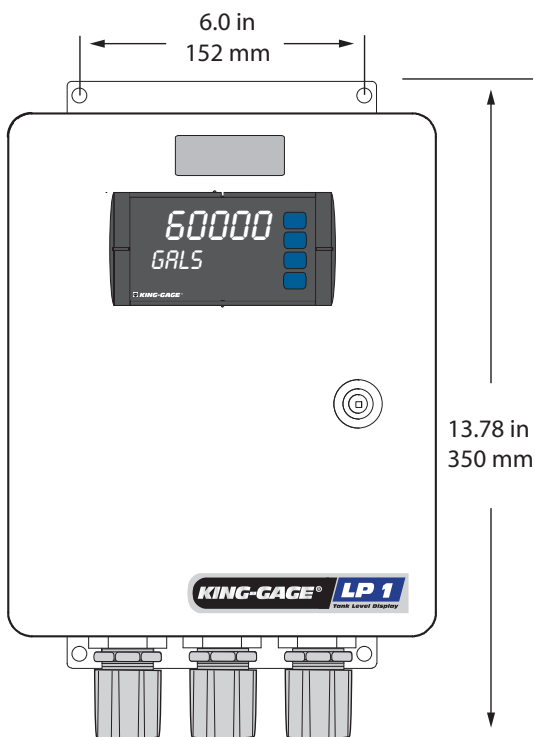


24 Vdc Output (Transmitter Excitation)

The LP1 tank indicator provides an isolated 24Vdc transmitter power supply over the 2-wire signal loop. This simplifies system installation and ensures proper excitation of the level transmitter even over substantial cable runs.

Modbus Digital Communications (Option)

You can use the LP1 tank level indicator to integrate into your process control scheme through digital serial communications. This widely used Modbus RTU protocol is supported by a large number of products and vendors in industrial control. (Requires the serial communication option.)



LP1 Digital Indicator Model 4650-1



Dual Line LED Display

Specifications

Input Signal
 4–20 milliamperes (mA_dc)
 Input current limiting; auto reset internal fuse

Display Type
 Dual line alphanumeric
 0.6" LED 6-digit (displayed value)
 0.4" LED 6-character units designator

Accuracy
 ±0.03% calibrated span

Resolution
 24-bit A/D conversion, ±1 count

Temperature Range
 -40° to 140°F/-40° to 60°C
 (operating range)

Power Requirements
 85-265 Vac 50/60 Hz

Voltage Output
 24 Vdc (@ 200 mA)

Ratings
 IP65