# Loop-Powered Indicators with Advanced Control Features

Loop Leader PD6600 series features alarms, pump control, and retransmission



The use of loop-powered instruments in process control applications has often meant sacrificing features due to voltage drop limitations on the signal loop. While two-wire devices are cost-effective and easy-to-use, they normally lack advanced display and control capabilities. As a result, loop-powered meters are assumed to be useful for indication purposes only. The introduction of the new Loop Leader PD6600 series loop-powered

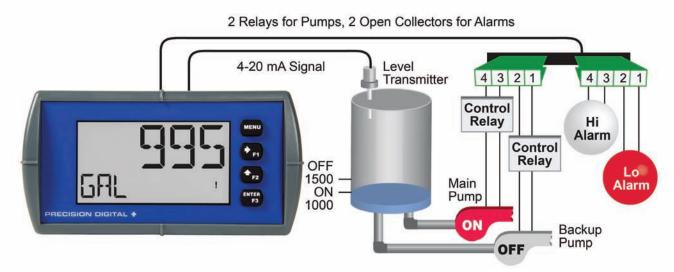
process meters and rate/totalizers represents a shift away from this common assumption without forgetting their simplicity. The PD6600 series offers output options (solid-state relays, open collectors, and 4-20 mA output), a highly detailed and customizable LCD display, and advanced programming options allowing it to handle a wide range of process control applications. All of this with only a 1.5 V drop on the current loop!

### **Multiple Output Options**

All PD6600 series models come equipped with two open collector outputs standard and are optionally available with two solid-state relays and a 4-20 mA analog output. Having these outputs available on the meter means that it is also a capable controller, handling alarm indication, signal retransmission via pulse or analog signal, pump control, batch control, and a wide range

of other tasks. Any other device that needs to respond to changes in the process signal can be activated through the use of these outputs at certain programmable set and reset points, just like what you would expect to find on a costlier line-powered alternative. Solid state relays also have no moving parts and as such tend to last a lot longer than mechanical relays.

### **Advanced Programming Capabilities**

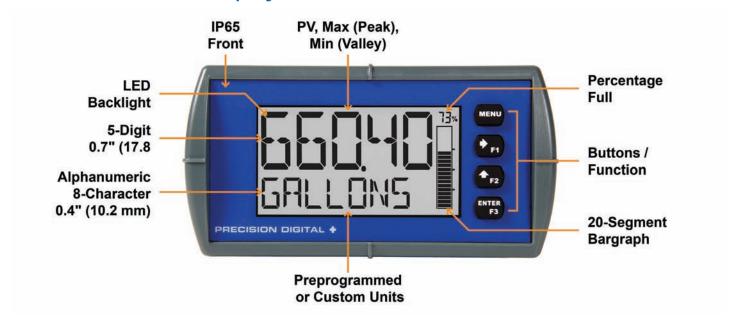


The PD6600 series has advanced programming features that make the most of the outputs available on the meter. The solid-state relays can be programmed to turn on and off automatically or manually in order to control alarms, pumps, or other devices. Automatic relays can be programmed independently or configured to alternate back and forth for pump control applications where there are two pumps, so that wear and tear is spread evenly to extend their life. These alternating relays can further be set to switch after a specified period of time to prevent pump burnout.

Loop Leader rate/totalizers can use the solidstate relays to sample the total or grand total, or for batch control operations with start, stop, pause, and preset capabilities. The relays can also be set to act as timers.

The 4-20 mA output can be set to retransmit the input signal or it can be rescaled to output another range based on the process value or total in the case of the rate/totalizer model. The open collectors, which come standard on the base model PD6600, can be used to trigger alarms, act as timers, or output a pulse signal based on the process variable, rate, total, or grand total.

### An Information Packed Display



The PD6600 series display has been redesigned from the ground up and offers many improvements over their PD680 series predecessors. First and foremost, the displays now have a second fully programmable, 8-alphanumeric-character display line. This additional line may be used to show units of measure, total, grand total, a different scale based on the process input, and much more. The LCDs feature highly legible 14-segment characters and a standard bright backlight for optimum readability in any lighting condition.

The bottom line also features commas to make large numbers easier to read at a glance.



Alarm conditions can be easily signaled through the use of a red backlight and corresponding alarm messages which will flash on the bottom display line until the alarm condition is cleared.



# Wide Range of Display Options

There are multiple display options to choose from. The PD6602 process meter and PD6622 rate/totalizer feature a standard decimal display, the PD6604 and PD6624 have a bargraph which

can be set to display the process variable's percentage of full scale, and the PD6603 has a unique feet and inches display with clearly labeled foot and inch marks for use in level applications.



Decimal Displays

PD6602 - Process Meter PD6622 - Flow Rate/Totalizer



Decimal + Bargraph Displays

PD6604 - Process Meter PD6624 - Flow Rate/Totalizer



Feet & Inches Displays

PD6603 - Ft & In Level Meter

## A Game Changer

The Loop Leader PD6600 series of loop-powered process meters and rate/totalizers is a game changer, radically improving and expanding the functionality expected from loop-powered instruments without sacrificing cost-efficiency, ease-of-use, or voltage drop. You no longer need to settle for scaled back or stripped down versions of line-powered alternatives, but instead can benefit from all of those features and more for applications which require the meter to be powered by the current loop. The advanced output, display, and control features available make the Loop Leader PD6600 series a leader in loop-powered indication and control.



For more information on the Loop Leader or to check stock and delivery visit **predig.com/loopleader**.

by Simon Paonessa - Technical Writer, Precision Digital Corporation