PD6701

Vantageview Loop-Powered F&I Level Meter
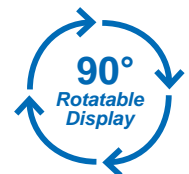

vantageview

- **Display Level in Feet & Inches**
- **4-20 mA Input Loop-Powered**
- **Programmable $^1/_8$ or $^1/_{16}$ Inch Display**
- **20-Segment Tank Level Indicator**
- **Lower Display for Tag, Volume, or Percent**
- **SafeTouch® Through-Window Button Programming**
- **Open Collector Alarm Output**
- **Password Protection**
- **Flanges for Wall or Pipe Mounting**
- **HART® Protocol Transparent**
- **Loop-Powered or External DC-Powered Backlight Standard**
- **3.0 V Drop (6.0 V with Backlight)**
- **NEMA 4X, IP65 Plastic Enclosure for Safe Areas**
- **Operates from -40 to 75°C**

SAFE TOUCH®
Through-Window Button Programming

90°
Rotatable Display

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PD6701 Level Meter

Displays clear alphanumeric tag names

vantageview

Tag or Tamper
Seal Loop

Mounting Flanges
(Up to 2½" Pipe)

SafeTouch®
Menu Button

Tamper Seal
Loop Tab

Backlight Standard

0.6" (15.24 mm)
Feet & Inches

0.4" (10.2 mm)
7-Character
(Alphanumeric)

Three ¾" NPT
Conduit Holes

SafeTouch®
Right Arrow

Injection-Molded Plastic
NEMA 4X IP65
Enclosure

SafeTouch®
Enter or Alarm
Acknowledge Button

Tank Level Bar Graph

Alphanumeric
Engineering Units

Alarm Indicators

SafeTouch®
Display or Up Arrow

Mechanical Buttons
(4 Places)

2 Plastic Conduit
Plugs Included

SAFE TOUCH® *Through-Window Button Programming*

Lower Displays

Custom Tag

Volume

Percent

Simple to Setup

Easy to Follow Programming

OVERVIEW

The new Vantageview PD6701 Feet & Inches level meter is a plastic field mounted loop-powered indicator specifically designed for level applications in wet or dirty environments. The PD6701 features a clearly labeled feet and inches display. The feet and inches display is easily read and understood, providing quick and easy to comprehend information to operators. The meter can display in eighths or sixteenths of an inch. It includes a volume scale display feature and can be seen under varied lighting conditions, from wide angles, and from a distance. Spend a few minutes reviewing the features described in the graphic above and see how the PD6701 is the ideal level meter for your operation!

KEY FEATURES

Easy to Understand Feet & Inches Display

The upper display is 0.6" high and shows clearly labeled feet and inches up to 399 feet, 11 and 15/16 inches. The high contrast, backlight LCD display is easy to read from far away and under various lighting conditions. Feet and inches are clearly labeled. Fractions of an inch may be displayed as eighths, sixteenths, or turned off, displaying only full feet and inches.

20-Segment Tank Level Indicator

A 20-segment tank level indicator gives a clear indicator of height at a glance. When a high level alarm is triggered, the tank level indicator will flash the segment indicating the alarm level. High and low level alarm indicators located with the tank level indicator will flash to alert an operator to the alarm condition. The tank level indicator may be scaled independently of the analog input scale, so the tank indicator may display as full at less than 20 mA. This is ideal for level transmitters that output less than 20 mA at the maximum height of the tank or pit depth.

Lower Display for Tag, Volume, or Percent

The lower display is 0.4" high and shows either a custom tag, volume, or percent full with seven alphanumeric characters. A custom tag is programmable for any seven alphanumeric digits. The 14-segment display makes the tag easy to read, and it can include lower and upper-case letters. This is ideal for identification or material labels. Volume may be displayed from 0 to 9999999, with or without an alternating tag. Percent full may also be displayed, with or without an alternating tag. The percent is clearly labeled with PCT.

Through-Window SafeTouch Buttons

The PD6701 is equipped with four sensors that operate as through-window buttons so that it can be programmed and operated without removing the cover (and exposing the electronics) in a hazardous area. These buttons can be disabled for security by selecting the LOCK setting on the switch located on the connector board in the base of the enclosure. To actuate a button, press one finger to the window directly over the marked button area. When the cover is removed, four mechanical buttons located next to the sensors are used.

Modern, Sleek and Practical Enclosure

The first thing customers notice about a product is its enclosure and the Vantageview really shines here. The injection-molded, protective NEMA 4X (IP65) enclosure is easy to install and mount. The built-in mounting flanges make for convenient wall or pipe mounting and there is even a slot on the back of the enclosure for centering on the pipe. There are three ¾" NPT conduit holes for wiring, and the enclosure allows for easy installation of tamper seals.

Wide Viewing Angle

The window and display module have been optimized to provide a wide viewing arc of approximately 80°, nearly twice that of the competition! The PD6701 is designed to be looked at.

Environmentally Tough

Vantageview Series meters not only look great with their modern plastic enclosures, but they can be installed in a variety of industrial environments. The NEMA 4X / IP65 enclosure provides serious protection from the elements, dirt, dust and electrical interference.

Perfect & Secure Fit Every Time

The internal rails ensure the Vantageview assembles together perfectly, quickly and securely; components line up for optimal viewing every time. There are no standoffs to worry about breaking or getting out of alignment. Two spring-loaded, self-retaining, thumbscrews make the assembly a snap, while pressing the LCD as close to the window as possible to improve wide angle viewing.

INPUT SIGNAL CONDITIONING

Volume Scale

An independent second display scale of the 4-20 mA input allows volume to be shown on the lower display. The volume scaling is fully independent of the level scale.

Multi-Point Linearizer

Up to 32 linearization points can be selected for the level indicator under the Multipoint menu. The volume scale has an independent 32-point linerarizer. Multi-point linearization can be used to linearize the display for non-linear signals, such as when measuring volume using level transmitters on odd-shaped tanks. The level scale and volume scale may use different numbers of linearization points.

Live Input Calibration

In lieu of meter scaling, the meter can be calibrated with a precision signal source. This is done at any two points along the scale. Using this method, the operator can set a "best fit straight line" for non-linear input spans.

ADDITIONAL FEATURES

Open Collector Output Alarm & Indication

The PD6701 has an open collector output that may function as a high or low alarm. When in an alarm condition, the display will flash, and a HI or LO symbol is displayed. The alarm has an adjustable deadband (the difference between the set and reset points). The alarm is acknowledged by pressing the ENTER button.

Password Protection

A 5-digit password prevents unauthorized changes to the programmed parameter settings. If the meter is password protected, the meter will display the message LOCKED when the Menu button is pressed.

INSTALLATION

Installation Flexibility

The PD6701's rotatable display/meter module, along with three available conduit connections, provides for numerous installation options. The display can be rotated in 90° increments. Rotate it 90° for horizontal mounting. Wiring can then be routed to either the top conduit connection, or from below to the opposite conduit connection (plastic conduit plug supplied). Use the three conduit connections for through-wiring in any direction. Two ¾" NPT plastic conduit plugs, with 1.29" wrenching flats and a screwdriver slot, are included.
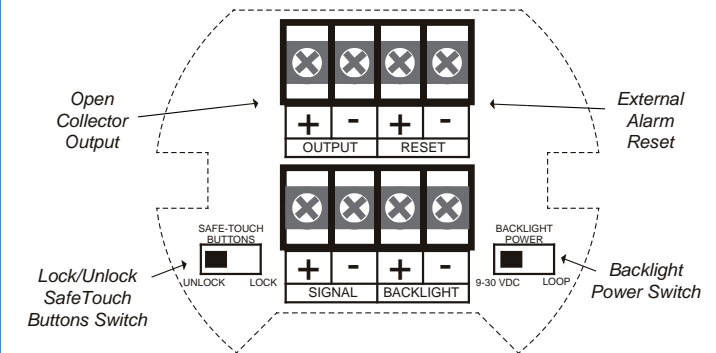
Easy Wiring & Service

Unscrew the two captured thumb screws and unplug a connecting cable and the display/meter module is simply and completely removed. A heavy duty terminal block is then easily accessed and wired. It is clearly marked to prevent wiring errors. The display/meter module can be removed *without breaking the loop.* As such, it can be serviced without the need to uninstall the entire product. All relevant hazardous area guidelines must be followed during service.

CONNECTIONS

See LIM6701 manual for wiring instructions

SPECIFICATIONS

Except where noted all specifications apply to operation at +25°C.

General

Display: *Feet & Inches display:* 0.60" (15.2 mm) high,
0 to 399 FT - 11 15/16 IN with 1/16 or 1/8 fraction display.
Lower 7-digit display: 0.4" (10.2 mm) high, 14-segment alphanumeric characters, display tag, volume 0 to 9999999, and/or 0-100 percent.
Tank Level Indicator: 20 segments, F (Full) and E (Empty)
Alarm Indication: HI and LO; *Backlight:* White, loop or DC powered
Display Assignment: Lower display may be assigned to custom unit or tag, volume, volume and tag, percent height, percent height and tag, or off.
Display Update Rate: Ambient > -25°C: 2 Updates/Second
Ambient < -25°C: 1 Update/5 Seconds
Externally Powered Backlight:
Voltage Range: 9-36 VDC

Supply Voltage	9 VDC	12 VDC	24 VDC	30 VDC
Maximum Power	0.2 W	0.25 W	0.5 W	0.75 W

Overrange and Underrange: Level display flashes to 399 FT 11 15/16 IN Volume display flashes 9999999 if overrange, -999999 if underrange.
Programming Method: Four SafeTouch® through-window buttons when cover is installed. Four internal pushbuttons when cover is removed.
Noise Filter: Programmable low (LO), medium (MED), high (HI), or off (OFF)
Recalibration: Recalibration is recommended at least every 12 months.
Password: Programmable password restricts modification of settings.
Nonvolatile Memory: All programmed settings are stored in non-volatile memory for a minimum of ten years if power is lost.
Normal Mode Rejection: 64 dB at 50/60 Hz
Environmental: *Operating temperature range:* -40 to 75°C
Storage temperature range: -40 to 75°C
Relative humidity: 0 to 90% non-condensing
Connections: Screw terminals accept 12 to 22 AWG wire
Enclosure: NEMA 4X, IP65 plastic field enclosure. Color: grey. Material: Polycarbonate with UV Stabilizer. Three ¾" NPT threaded conduit openings. Two ¾" NPT plastic conduit plugs, with 1.29" wrenching flats and a screwdriver slot, are included.
Mounting: May be mounted directly to conduit. Two slotted flanges for wall mounting or NPS 1½" to 2½" or DN 40 to 65 mm pipe mounting. See Mounting Dimensions.
Overall Dimensions: 5.67" x 5.25" x 4.18" (W x H x D)
(144 mm x 133 mm x 106 mm)
Weight: 1.65 lbs (26.4 oz, 0.75 kg)
Warranty: 3 years parts and labor

Input

Accuracy: ±0.03% of calibrated span ±1 count
Input Range: 3 to 24 mA
Multi-Point Linearization: 2 to 32 points each for level and volume
Temperature Drift: 50 PPM/°C from -40 to 75 °C ambient
Calibration Range:
Input Range: 4-20 mA, *Input 1 & 2 Minimum Span:* 0.10 mA
Maximum Voltage Drop *Without Backlight or with Externally-Powered (DC Powered) Backlight:* 3.0 VDC @ 20 mA
With Loop-Powered Backlight: 6.0 VDC @ 20 mA
Equivalent Resistance: 150 Ω @ 20 mA without loop-powered backlight. 300 Ω @ 20 mA with loop-powered backlight.
Input Overload: Over current protection to 2 A max.

Open Collector Output

Rating: Isolated open collector, 30 VDC @ 150 mA max.
Alarm Output: Assign to level or volume for high or low alarm trip point.
Deadband: 0-100% FS, user selectable
Acknowledge: Front panel ENTER button and external RESET terminals resets output and screen indication.
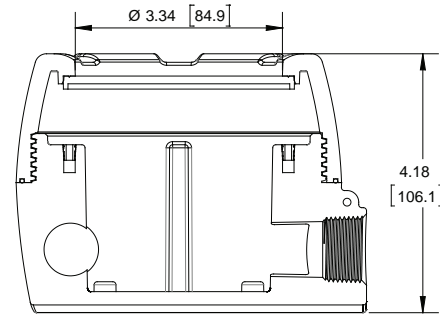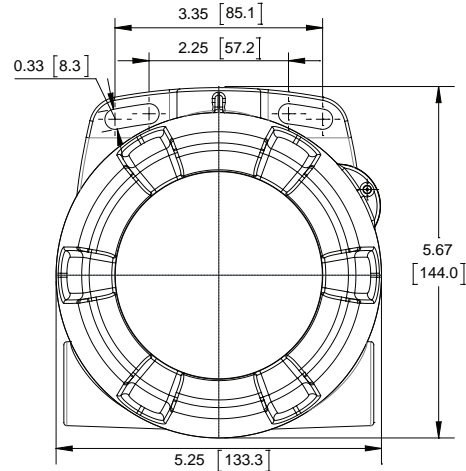
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MOUNTING DIMENSIONS

Units: Inch (mm)

ORDERING INFORMATION

Vantageview PD6701 • Level Meter	
Model	**Description**
PD6701-0K1-0	Vantageview Feet & Inches Level Meter

Accessories	
Model	**Description**
PDAPLUG75P	3/4" NPT Plastic Conduit Plug
PDA6846	Pipe mounting kit; includes zinc-plated u-bolt for 2" pipe, (2) washers, and (2) nuts.
PDA6846-SS	Pipe mounting kit; includes stainless steel u-bolt for 2" pipe, (2) washers, and (2) nuts.

Your Local Distributor is:

LDS6701_C   03/17

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