

# DIGITAL INDICATORS

Take a closer look at Precision Digital's updated line of process indicators, alarm annunciators, scanners, and flow rate/totalizers. PD's large display meters let you safely monitor processes in difficult environments, or from a distance! And the PD Trident is so flexible it works with current, voltage, thermocouples, and RTDs!

Honeywell offers an alternative to their line of universal digital controllers, so you only pay for the instrumentation functionality you need. And, Ametek USG offers the tried-and-true DT8310 digital temperature indicator: just as popular today as when it was released, more than 25 years ago!



	Prices Start at	See Page
<b>Alarm Annunciators</b>		
Precision Digital PD138 Minimux® II 8-Channel Process Scanner	\$329.00	236
Precision Digital PD154 and PD158 Vigilante® II Alarm Annunciators	\$349.00	236
Precision Digital PDS178 Temperature Scanner/Alarm System	\$649.00	236



<b>Flow Rate/Totalization Indicators</b>		
Precision Digital PD650 Series Large Display Process Meters	\$959.00	232
Precision Digital Loop-Powered Flow Rate/Totalizers	\$638.00	233
Precision Digital PD6200/6300 ProVu Dual-Line Flow Rate/Totalizers	\$364.00	230
Precision Digital PD6820 Explosion-Proof Flow Rate/Totalizer	\$859.00	261



<b>Process Signal Indicators</b>		
Precision Digital Loop-Powered Indicators and Rate/Totalizers	\$488.00	233
Precision Digital Explosion-Proof Loop-Powered Process Meters	\$444.00	234
Precision Digital PD650 Series Large Display Process Meters	\$959.00	232
Precision Digital PD6000 ProVu Dual-Line 6-Digit Process Meter	\$334.00	228
Precision Digital Trident Universal Input Process/Temperature Meters	\$244.00	226
Precision Digital PD8-765 ProtEX-MAX Large Display Meter	Call	235



<b>Temperature Indicators</b>		
Ametek/US Gauge DT-8310 Series Digital Temperature Indicator	\$465.63	232
Precision Digital Trident Universal Input Process/Temperature Meters	\$244.00	226
Precision Digital PD7000 ProVu Dual-Line 6-Digit Temperature Meter	\$334.00	229
Precision Digital PDS178 Temperature Scanner/Alarm System	\$649.00	236
Precision Digital PD8-765 ProtEX-MAX Large Display Meter	Call	235



<b>Special Application Indicators</b>		
PD644 Javelin D High Voltage DC Panel Meter	\$314.00	227
PD856 Snoopers Modbus® RTU RS-485 Serial Input Meter	Call	227
Precision Digital ProVu 1/8 DIN Dual-Line Advanced Digital indicators	\$384.00	228
Precision Digital PD6801 Explosion-Proof Level Indicator	\$899.00	235

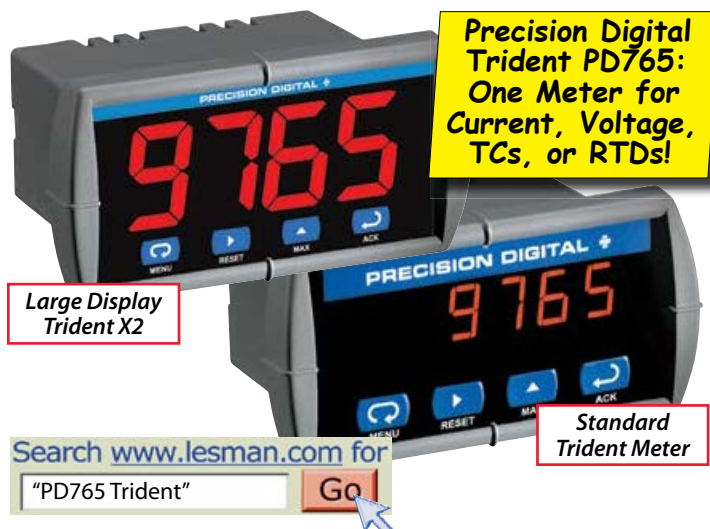


<b>Accessories</b>		
Enclosures for Mounting Meters Inside (Meter Fully Inside Enclosure)	\$259.00	236
Enclosures for Panel-Type Mounting (Meter Mounts Onto Cover)	\$99.00	236

Due to manufacturer agreements, not all products are available in all geographic areas and markets. Prices in this catalog are current at the publication date, and are subject to change without notice.

Looking for enclosures?  
See page 236.  
Prices start at \$99.00

## Universal Input Process and Temperature Meter



### PD765 Trident Universal Indicator

- Input: 0–20 mA, 4–20 mA, ±10 VDC (0–5, 1–5, 0–10 V), Thermocouple types J, K, T, E, and Pt100Ω RTD
- 1° resolution (0.1° with RTD)
- Linear or square root with low-flow cutoff
- Single or dual 24 VDC transmitter power supply option
- Modbus® RTU, ASCII protocol, and serial communications
- Two relays and 4–20 mA output options



#### Model Selection Guide

Description	Catalog Number	Price
<b>Trident Process and Temperature Meter, 85-265 VAC Power</b>		
Options	None	PD765-6R0-00 \$244.00
	24 VDC Supply	PD765-6R0-10 284.00
	2 Relays	PD765-6R2-00 309.00
	2 Relays + 24 VDC Supply	PD765-6R2-10 349.00
	4-20 mA Output	PD765-6R3-00 339.00
	4-20 mA Output + 24 VDC Supply	PD765-6R3-10 359.00
	4-20 mA Output, Dual 24 VDC Supply	PD765-6R3-20 444.00
	2 Relays, 4-20 mA Out, 24 VDC Supply	PD765-6R5-10 379.00
Enclosures	NEMA 4X Thermoplastic (1 Meter)	PDA2801 99.00
	NEMA 4X Clear Plastic (1 Meter)	PDA2407 259.00

#### Common Features of Trident-Style Shallow-Depth Meters

- 1/8 DIN NEMA 4X/IP65 shallow-depth enclosure (just 3.6" behind panel)
- Four digit display (-1999 to 9999), 0.56" high
- 85-265 VAC or 12-36 VDC power
- Operating temperature 32° to 149° F
- Sunlight-readable display
- Maximum and minimum display
- Free MeterView software to program, monitor, and datalog up to 100 Trident meters from a PC (requires serial communications adapter)
- UL and cUL approved



#### The Trident Does It All!

The Trident is a universal panel meter that handles all the common process display applications with simplicity, reliability, and accuracy.

The Trident's shallow-depth case is designed for easy installation and servicing. The large front bezel is approved as Type 4X, NEMA 4X, and IP65 and has plenty of overlap, even for rough, hand-cut, panel cutouts. Locking mounting brackets make it easy to mount a meter in the panel. Removable screw terminal connectors allow easy and convenient wiring.

The Trident can be used for data acquisition with a PC by connecting an optional serial communication adapter. Adapters are also available for RS232 or RS422/485 interfaces. MeterView software simplifies data acquisition and helps you program the meter from a PC.

#### Easy Setup and Programming

All Trident programming can be performed with the four-button front panel. There is only one switch on the entire meter, no jumpers, and no need to ever open the case.

PD's free MeterView software lets you program the Trident from a PC and collect data. MeterView lets you program setup parameters and save them to a file for reporting or to use when you program other meters.

You can select the logging time interval and the engineering units that will be displayed on the computer screen. Data is written to an ASCII file that you can import into a spreadsheet or other application.

**Download MeterView software FREE from [www.predig.com](http://www.predig.com)**

### PD765 X2 Large Display Indicator



**Features a 1.2" tall four-digit LED display — the largest display of any 1/8 DIN meter on the market— easy to read at distances up to 30 feet away!**

- Input: 0–20 mA, 4–20 mA, ±10 VDC (0–5, 1–5, 0–10 V), Thermocouple types J, K, T, E, and Pt100Ω RTD
- 1° resolution (0.1° with RTD)
- Linear or square root with low-flow cutoff
- Single or dual 24 VDC transmitter power supply option
- Modbus® RTU, ASCII protocol, and serial communications
- Two relays and 4–20 mA output options

#### Model Selection Guide

Description	Catalog Number	Price
<b>Trident X2 Large LED Process and Temperature Meter, 85-265 VAC Power</b>		
Options	None	PD765-6X0-00 \$344.00
	24 VDC Supply	PD765-6X0-10 384.00
	2 Relays	PD765-6X2-00 409.00
	2 Relays + 24 VDC Supply	PD765-6X2-10 449.00
	4-20 mA Output	PD765-6X3-00 439.00
	4-20 mA Output + 24 VDC Supply	PD765-6X3-10 459.00
	4-20 mA Output, Dual 24 VDC Supply	PD765-6X3-20 544.00
	2 Relays, 4-20 mA Out, 24 VDC Supply	PD765-6X5-10 479.00
Enclosures	NEMA 4X Thermoplastic (1 Meter)	PDA2801 99.00
	NEMA 4X Clear Plastic (1 Meter)	PDA2407 259.00

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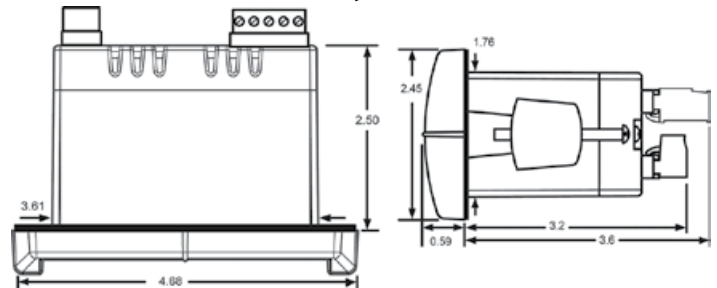


## PD603 Sabre P Process Indicator

- Input: 0–20, 4–20 mA, 0–5, 1–5, 0–10, ±10VDC
- Scale without a signal source
- Calibrate with a signal source
- Easy front panel programming
- 24 VDC transmitter power supply optional



### Dimensions for All Trident-Style 1/8 DIN Meters



Download full specs and the Trident operations manuals at [www.lesman.com](http://www.lesman.com)



### Model Selection Guide

5-piece minimum quantity.

Description	Catalog Number	Price
PD603 1/8 DIN Sabre P Low Cost Digital Temperature Indicator		
PD603 Process Meter, 85-265 VAC Power	<b>L</b> PD603-6R0-0	\$174.00
PD603 Process Meter, 24 VDC Output	<b>S</b> PD603-6R0-1	214.00
PD603 Process Meter, 12-36 VDC Power	<b>L</b> PD603-7R0-0	229.00
NEMA 4X Enclosure for One Unit	<b>L</b> PDA2407	259.00

## PD743 Temperature Indicator

- Input: Thermocouple J, K, T, E, or Pt100 Ω RTD
- 1° or 0.1° resolution with RTD
- Pre-calibrated for all input types
- Easy front panel programming



### Model Selection Guide

5-piece minimum quantity.

Description	Catalog Number	Price
PD743 Temperature Meter, 85-265 VAC Power	<b>L</b> PD743-6R0-0	\$174.00
PD743 Temperature Meter, 12-36 VDC Power	<b>L</b> PD743-7R0-0	224.00
NEMA 4X Enclosure for One Unit	<b>L</b> PDA2407	259.00

## PD644 Javelin D High-Voltage DC Panel Meter

- 0-300 VDC input
- RS-485 serial communications
- 4-20 mA analog output
- Modbus® RTU
- 2 Form C relays
- 24 VDC transmitter supply



### Model Selection Guide

Description	Catalog Number	Price
PD644 Javelin D High Voltage DC Panel Meter, 85-265 VAC Power		
PD644 Meter, 24 VDC Transmitter Power	<b>L</b> PD644-6R3-14	\$314.00
PD644 Meter, 2 Relays, 24 VDC Transmitter Power	PD644-6R5-14	364.00
NEMA 4X Enclosure for One Unit	<b>L</b> PDA2407	259.00

## PD865 Snooper Modbus® Serial Input Meter

- Input: RS-485 Modbus® RTU
- Use as master, slave, or snooper device
- Linear, square root, and program function
- RS-485 s
- Proxy p
- Shallow enclosure 3.4" behind panel
- Isolated 4-20 mA analog output option
- Two Form A relays standard; Two Form C relays optional

This product has been discontinued and is no longer available. Contact Lesman at (800) 953-7626 for suitable replacements.



### Model Selection Guide

Description	Catalog Number	Price
PD856 Snooper Modbus® RTU RS-485 Serial Input Meter, 85-265 VAC Power		
PD856 Meter, No Options	PD865-6R2-06	Call
PD856, 4-20 mA Output, Transmitter Power	PD865-6R5-16	Call
PD856, 4-20 mA, 2 Relays + Transmitter Power	PD865-6R7-16	Call
NEMA 4X Enclosure for One Unit	<b>L</b> PDA2407	259.00

Also available with 12-36 VDC power or explosion-proof enclosure. Call Lesman.

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# ProVu 1/8 DIN Dual-Line Advanced Digital Indicators



## Features

- Dual-line six-digit display, 0.6" and 0.46" tall
- Programmable displays and function keys
- NEMA 4X, IP65 front face
- Universal 85-265 VAC or 12/24 VDC input power
- USB, RS-232, and RS-485 serial communication options
- On-board digital input
- Modbus RTU communication protocol standard
- 2 or 4 relays + isolated 4-20 mA output options
- Sunlight readable display models also available
- Free MeterView Pro software for configuration, monitoring, and datalogging from a PC (requires serial communication adapter PDA1485)

## Feature-Rich and Flexible

Precision Digital's ProVu meter's dual-line 6-digit display (999,999), advanced math functions, function keys, and expansion modules help make it one of the most advanced process meters available today.

ProVu's large 0.6" main display gives you a highly accurate, precise view of your process. The main display can be programmed to indicate PV, maximum (peak), minimum (valley), alternating min/max, or one of eight alarm setpoints. The secondary display can be configured to display engineering units, user defined legends, or turned off.

All ProVu programming is done via the front panel and dual-line display. No jumpers to set or potentiometers to adjust. Three levels of password protection help maintain program reliability and security.

Three function keys can be set to acknowledge alarms, reset max/min, disable/enable output relays, or hold current relay states, provide direct menu access points, and more.

Add functionality to the ProVu in the field with easy-to-install expansion modules. Menu items for these modules are hidden until the module is installed.

ProVu accepts up to two I/O modules, with four digital inputs and four digital outputs each; a module with four 3-Amp Form A SPST relays; or a serial card with RS-232 or RS-422/485 communication adapters.

## Signal Input Conditioning

Non-linear input signals can be linearized through built-in math functions, including: square-root extractor, weirs and flumes exponential linearizer, horizontal round tank linearizer, or PD's powerful general purpose 32-point linearizer.

**ProVu multipoint linearization utility software is FREE to download from the Lesman website. Makes it easy to enter linearization points to configure your meter or save for future reference.**

## Relay Outputs

The ProVu has up to four 3-Amp Form C SPDT relays, giving you more fail-safe options at power loss. Relay action can be configured for input loop break protection. Set ON and OFF delay times when needed. Up to eight front panel indicators show alarm or relay state.

## Relay Operation/Configuration

Powerful relay functions can be configured in the ProVu, including:

- Automatic reset only (non-latching); Automatic + manual reset at any time (non-latching)
- Latching (manual reset only); Latching with Clear (manual reset only after alarm condition has cleared)
- Pump alternation control (automatic reset only)
- Sampling (activated for a user-specified time)
- User selectable fail-safe operation
- Relay action for loss (break) of 4-20 mA input signal
- Time delay (on and off), independent for each relay

## Analog Output

The isolated analog retransmission signal can be configured to represent the process variable (PV), maximum (peak), minimum (valley), or the value for any of the relay setpoints. While the output is nominally 4-20 mA, the signal will accurately accommodate under- and over-ranges from 1 to 23 mA.

Auto/Manual control function takes control of any output. All relays can be forced ON or OFF, and the 4-20 mA output signal can be set to any value within its range.

## Isolated Transmitter Power Supplies

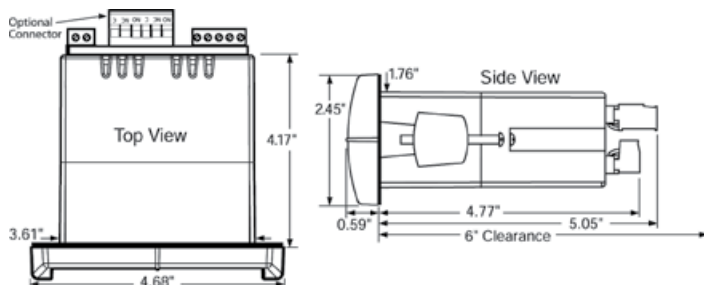
A powerful 24V @ 200 mA power supply is standard on the ProVu. It can be configured for 5, 10, or 24 V via an internal jumper. An additional 24V power supply is standard with the 4-20 mA output option.

## MeterView Pro

Use the free MeterView Pro software to configure, monitor, or datalog any ProVu series meter. Copy one meter configuration to another, save or retrieve a meter configuration file, or run a multipoint linearization.

Save or print configuration files (PDC format), or export logged data as CSV for analysis in your choice of database or spreadsheet programs.

Requires Windows® 2000 or newer operating system, with RS-232 or RS-422/485 adapter to connect meters to your PC. Download the most current version of MeterView Pro for free at [www.predig.com](http://www.predig.com)



**Full specifications, wiring diagrams, user manual available online at [Lesman.com](http://Lesman.com)**

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## PD6000 ProVu Process Meter

### Features

- Input: 0–20 mA, 4–20 mA; ±10 VDC (0–5, 1–5, 0–10 V); Modbus PV (slave)
- Single input, dual scale for level applications
- Signal input conditioning for flow and round horizontal tanks
- 32-point, square root, or exponential linearization
- Multi-pump alternation control
- Isolated 24 VDC @ 200 mA transmitter power supply



## PD6060 ProVu Dual-Input Process Meter

### Features

- Input: Dual 0–20 mA, 4–20 mA; ±10 VDC (0–5, 1–5, 0–10 V); Modbus PV (slave)
- Addition, difference, absolute difference, average, multiplication, division, min of A or B, max of A or B, draw, weighted average, and ratio math functions
- Signal input conditioning for flow and round horizontal tanks
- Isolated 24 VDC @ 200 mA transmitter power supply



### Model Selection Guide

Description	Catalog Number	Price
PD6000 ProVu Analog Input Process Meter		
ProVu Process Meter, No Options	PD6000-6R0	\$334.00
ProVu Process Meter, 2 Relay Outputs	PD6000-6R2	384.00
ProVu Process Meter, 4-20 mA Output	PD6000-6R3	404.00
ProVu Process Meter, 4 Relay Outputs	PD6000-6R4	424.00
ProVu Process Meter, 2 Relays + 4-20 mA Output	PD6000-6R5	444.00
ProVu Process Meter, 4 Relays + 4-20 mA Output	PD6000-6R7	484.00

### Model Selection Guide

Description	Catalog Number	Price
PD6060 ProVu Analog Dual-Input Process Meter		
ProVu Process Meter, No Options	PD6060-6R0	\$454.00
ProVu Process Meter, 2 Relay Outputs	PD6060-6R2	504.00
ProVu Process Meter, 4-20 mA Output	PD6060-6R3	524.00
ProVu Process Meter, 4 Relay Outputs	PD6060-6R4	544.00
ProVu Process Meter, 2 Relays + 4-20 mA Output	PD6060-6R5	564.00
ProVu Process Meter, 4 Relays + 4-20 mA Output	PD6060-6R7	604.00

## PD6100 ProVu Strain Gauge Meter

### Features

- Input: 0–10, 0–20 mA; ±10, ±20, ±100, ±200 mV; Modbus PV (slave)
- Selectable 5, 10, or 24 VDC excitation power supply
- Ratiometric operation
- Capture or programmable tare feature
- Single input, dual scale feature
- Rounding function 1, 2, 5, 10, 20, 50, or 100
- Auto feature eliminates zero drift
- Isolated 24 VDC @ 200 mA transmitter power supply



## PD7000 ProVu Temperature Indicator

### Features

- Type J, K, T, E, R, S, B, N, and C thermocouples plus Pt100Ω, Pt1000Ω, Ni120Ω, and Cu10Ω RTDs; Modbus PV (slave)
- 1° or 0.1° resolution
- Averages up to 10 RTD sensors
- Automatic cold junction compensation
- Interlock relays (force on)
- On-board digital input
- Programmable function keys



### Model Selection Guide

Description	Catalog Number	Price
PD6100 ProVu Analog Input Process Meter		
ProVu Process Meter, No Options	PD6100-6R0	\$384.00
ProVu Process Meter, 2 Relay Outputs	PD6100-6R2	434.00
ProVu Process Meter, 4-20 mA Output	PD6100-6R3	454.00
ProVu Process Meter, 4 Relay Outputs	PD6100-6R4	474.00
ProVu Process Meter, 2 Relays + 4-20 mA Output	PD6100-6R5	494.00
ProVu Process Meter, 4 Relays + 4-20 mA Output	PD6100-6R7	534.00

### Model Selection Guide

Description	Catalog Number	Price
PD6100 ProVu Temperature Indicator		
ProVu Process Meter, No Options	PD7000-6R0	\$334.00
ProVu Process Meter, 2 Relay Outputs	PD7000-6R2	384.00
ProVu Process Meter, 4-20 mA Output	PD7000-6R3	404.00
ProVu Process Meter, 4 Relay Outputs	PD7000-6R4	424.00
ProVu Process Meter, 2 Relays + 4-20 mA Output	PD7000-6R5	444.00
ProVu Process Meter, 4 Relays + 4-20 mA Output	PD7000-6R7	484.00

### ProVu Meter Expansion Modules

Description	Catalog Number	Price	Description	Catalog Number	Price
Digital I/O Expansion Module	PDA1044	\$36.00	RS-422/485 Serial Adapter	PDA1485	\$82.00
Meter Copy Cable, 3'	PDA1200	Call	ProVu USB Serial Adapter	PDA8008	39.00
RS-232 Serial Adapter	PDA1232	82.00			

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## ProVu 1/8 DIN Dual-Line Advanced Digital Indicators



### PD6200 ProVu Analog Input Flow Rate/Totalizer

#### Features

- Input: 0–20 mA, 4–20 mA; ±10 VDC (0–5, 1–5, 0–10 V); Modbus PV (slave)
- Display rate and total simultaneously
- Count up or down, total and grand total
- Open channel flow with programmable exponent
- Square root extraction
- 32-point linearization with free software
- Total, grand total, or non-resettable grand total



#### Common Features of All ProVu Meters

- Dual-line six-digit display, 0.6" and 0.46" tall
- Programmable displays and function keys
- NEMA 4X, IP65 front face
- Universal 85–265 VAC or 12/24 VDC input power
- USB, RS-232, and RS-485 serial communication options
- On-board digital input
- Modbus RTU communication protocol standard
- 2 or 4 relays + isolated 4–20 mA output options
- Sunlight readable display models also available
- Free MeterView Pro software for configuration, monitoring, and datalogging from a PC (requires serial communication adapter PDA1485)

#### Model Selection Guide

Description	Catalog Number	Price
PD6200 ProVu Analog Input Flow Rate/Totalizer		
ProVu Process Meter, No Options	PD6200-6R0	\$364.00
ProVu Process Meter, 2 Relay Outputs	PD6200-6R2	414.00
ProVu Process Meter, 4–20 mA Output	PD6200-6R3	434.00
ProVu Process Meter, 4 Relay Outputs	PD6200-6R4	454.00
ProVu Process Meter, 2 Relays + 4–20 mA Output	PD6200-6R5	474.00
ProVu Process Meter, 4 Relays + 4–20 mA Output	PD6200-6R7	519.00

### PD6210 ProVu Analog Input Batch Controller

#### Features

- Input: 0–20, 4–20 mA; ±10, VDC (0–5, 1–5, 0–10 V); Modbus PV (slave)
- Start, batch, pause, and stop with front panel buttons
- Display batch total + rate, grand total, batch count or preset
- Single or multi-stage batching with up to 8 relays
- Manual control or automatic batching
- Count up or down, total and grand total



### PD6262 ProVu Analog Dual-Input Rate/Totalizer

#### Features

- Input: Dual 0–20 mA, 4–20 mA; ±10 VDC (0–5, 1–5, 0–10 V); Modbus PV (slave)
- Display rate, total, or grand total for either channel, or math
- Math functions based on rate, total, or grand total
- Addition, difference, absolute difference, average, multiplication, division, min of A or B, max of A or B, draw, weighted average, ratio, and concentration math functions
- Count up or down, total and grand total
- 5, 10 or 24 VDC isolated flowmeter power supply



#### Model Selection Guide

Description	Catalog Number	Price
PD6210 ProVu Analog Input Batch Controller		
ProVu Process Meter, 2 Relay Outputs	PD6210-6R2	\$514.00
ProVu Process Meter, 4 Relay Outputs	PD6210-6R4	554.00
ProVu Process Meter, 2 Relays + 4–20 mA Output	PD6210-6R5	574.00
ProVu Process Meter, 4 Relays + 4–20 mA Output	PD6210-6R7	619.00

#### Model Selection Guide

Description	Catalog Number	Price
PD6262 ProVu Analog Dual-Input Flow Rate/Totalizer		
ProVu Process Meter, No Options	PD6262-6R0	\$564.00
ProVu Process Meter, 2 Relay Outputs	PD6262-6R2	614.00
ProVu Process Meter, 4–20 mA Output	PD6262-6R3	634.00
ProVu Process Meter, 4 Relay Outputs	PD6262-6R4	654.00
ProVu Process Meter, 2 Relays + 4–20 mA Output	PD6262-6R5	674.00
ProVu Process Meter, 4 Relays + 4–20 mA Output	PD6262-6R7	719.00

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Fax: 262-923-1797

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## PD6300 ProVu Pulse Input Flow Rate/Totalizer

### Features

- Input: Pulse, open collector, NPN, PNP, TTL, switch contact, sine wave (coil), square wave; Modbus PV (slave)
- Display rate and total simultaneously
- Count up or down, total and grand total
- 5, 10, or 24 VDC flowmeter power supply
- Gate function for rate display of slow pulse rates
- K-Factor, internal scaling, or external calibration
- Can convert pulse input to an isolated 4–20 mA output
- Isolated 24 VDC @ 200 mA transmitter power supply



### Model Selection Guide

Description	Catalog Number	Price
PD6200 ProVu Analog Input Flow Rate/Totalizer		
ProVu Process Meter, No Options	PD6300-6R0	\$364.00
ProVu Process Meter, 2 Relay Outputs	PD6300-6R2	414.00
ProVu Process Meter, 4-20 mA Output	PD6300-6R3	434.00
ProVu Process Meter, 4 Relay Outputs	PD6300-6R4	454.00
ProVu Process Meter, 2 Relays + 4-20 mA Output	PD6300-6R5	474.00
ProVu Process Meter, 4 Relays + 4-20 mA Output	PD6300-6R7	519.00

## PD6310 ProVu Pulse Input Batch Controller

### Features

- Input: Pulse, open collector, NPN, PNP, TTL, switch contact, sine wave (coil), square wave; Modbus PV (slave)
- Start, batch, pause, and stop with front panel buttons
- Display batch total + rate, grand total, batch count or preset
- Single or multi-stage batching with up to 8 relays
- Automatic overflow correction
- Manual control or automatic batching
- Count up or down, total and grand total
- Can convert pulse input to an isolated 4–20 mA output
- Modbus® RTU communication protocol



### Model Selection Guide

Description	Catalog Number	Price
PD6310 ProVu Pulse Input Batch Controller		
ProVu Process Meter, 2 Relay Outputs	PD6310-6R2	\$514.00
ProVu Process Meter, 4 Relay Outputs	PD6310-6R4	554.00
ProVu Process Meter, 2 Relays + 4-20 mA Output	PD6310-6R5	574.00
ProVu Process Meter, 4 Relays + 4-20 mA Output	PD6310-6R7	619.00

## PD6363 ProVu Pulse Dual-Input Rate/Totalizer

### Features

- Input: Pulse, open collector, NPN, PNP, TTL, switch contact, sine wave (coil), square wave; Modbus PV (slave)
- Quadrature inputs
- Display rate, total, or grand total for either channel, or math
- Math functions based on rate, total, or grand total
- Addition, difference, absolute difference, average, multiplication, division, min of A or B, max of A or B, draw, weighted average, ratio, and concentration math functions
- Count up or down, total and grand total
- Count up or down, based on digital input
- Count up or down, based on second input
- 5, 10 or 24 VDC isolated flowmeter power supply
- Convert pulse input or math result to a 4–20 mA output



### Model Selection Guide

Description	Catalog Number	Price
PD6363 ProVu Pulse Dual-Input Rate/Totalizer		
ProVu Process Meter, No Options	PD6363-6R0	\$564.00
ProVu Process Meter, 2 Relay Outputs	PD6363-6R2	614.00
ProVu Process Meter, 4-20 mA Output	PD6363-6R3	634.00
ProVu Process Meter, 4 Relay Outputs	PD6363-6R4	654.00
ProVu Process Meter, 2 Relays + 4-20 mA Output	PD6363-6R5	674.00
ProVu Process Meter, 4 Relays + 4-20 mA Output	PD6363-6R7	719.00

### ProVu Meter Expansion Modules

Description	Catalog Number	Price
Digital I/O Expansion Module	PDA1044	\$36.00
Meter Copy Cable, 3'	PDA1200	Call
RS-232 Serial Adapter	PDA1232	82.00
RS-422/485 Serial Adapter	PDA1485	82.00
ProVu USB Serial Adapter	PDA8008	39.00

**Looking for a NEMA 4X enclosure for your Precision Digital meter? See page 236.**

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Process Valves

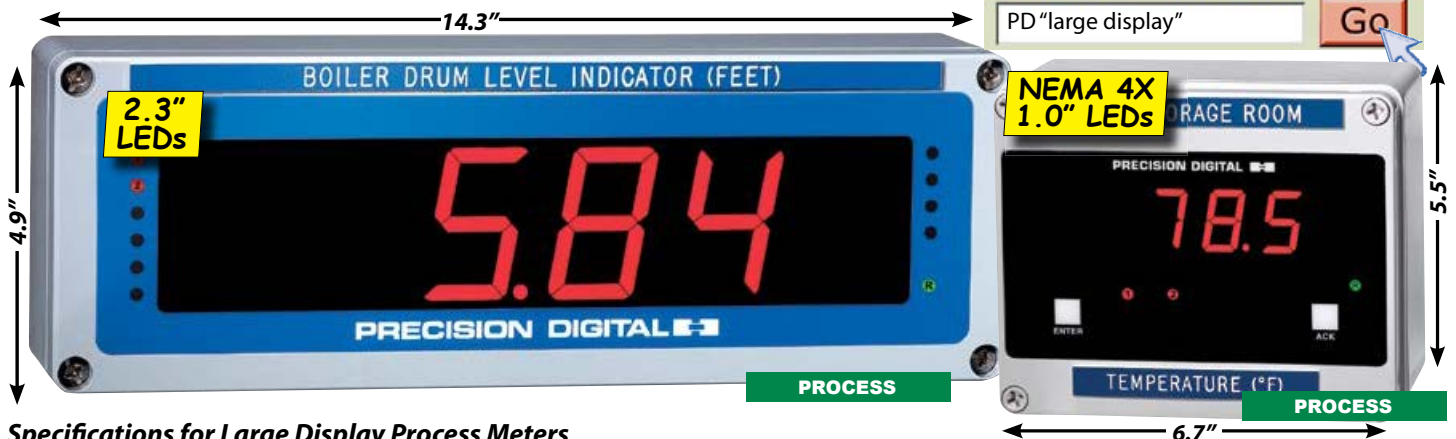
## Also Available

### Large Display Digital Process Meters



Search [www.lesman.com](http://www.lesman.com) for

PD "large display"



#### Specifications for Large Display Process Meters

- Inputs:** Field selectable: 4-20 mA, 0-20 mA, 0-5 V, 1-5 V, 0-10 V
- Display:** 4 1/2 digit plus extra zero for rate. Full six-digit display for total
- Calibration Range:** 4 mA (1V) can be set anywhere in meter's range. 20 mA (5V) can be set anywhere in meter's range, above or below 4 mA.
- Input Impedance:** Voltage ranges, >300 K $\Omega$ ; Current ranges, 100 $\Omega$
- Loop Power:** Two isolated power supplies, 24 VDC  $\pm$ 5% at 20 mA each, regulated. Max. loop resistance 1200 $\Omega$ .
- Linear Input Accuracy:**  $\pm$ 0.1% of calibrated span,  $\pm$ 1 count
- Pump Alternation Control:** A pair of relays can be set up to alternate every time an on/off pump cycle is completed. Setpoints and reset points can be programmed, so that first pump on is the first pump off.
- Alarms:** Four points, any combination of high or low alarms. *Deadband:* 0-100% of full scale, user selectable. *Status indication:* Front panel LED.
- External Programming:** Enter button functions can be controlled externally by wiring a switch across terminals EN and CM.
- Power:** AC power: 115 or 230 VAC (field select)  $\pm$ 10%, 50/60 Hz, 12 VA
- Environmental:** Ambient temperature: -20° to 65° C; Relative humidity: 0 to 90% noncondensing.
- Connections:** Removable screw terminal blocks (provided), accept 22 to 12 AWG wire.

#### PD650

- Display:** 2.3" red LED, six digit
- Enclosure:** Diecast aluminum, NEMA 4X
- Dimensions:** 4.9" x 14.3" x 3.2"

#### PD655

- Display:** 1.0" red LED, six digit
- Enclosure:** Impact-resistant, glass-filled polycarbonate, NEMA 4X
- Dimensions:** 6.7" x 5.5" x 3.7"



#### Model Selection Guide

Description	Catalog Number	Price
Process Meters, Field-Selectable Inputs, AC Power		
Large Display (2.3" LED) Meter	PD650-N	\$959.00
Large Display (2.3" LED) Meter, 4-20 mA Output	PD650-35	1114.00
NEMA 4X (1.0" LED) Meter	PD655-N	Call
NEMA 4X (1.0" LED) Meter, 2 Relay Outputs	PD655-44	Call

Call for other outputs, 24 VDC powered units, and panel mounting kits.

### DT-8300 Series Battery-Powered Intrinsically Safe Temperature Indicators



#### Specifications

- Input:** Thermocouple Type J or K
- Accuracy:**  $\pm$ 1% full scale; *Cold Junction Compensation/Zero Drift:* 0.08°/° F; *Resolution:* 1° F
- Calibration:** Screw adjust calibrates to within 1° F/° C at any point.
- Display:** 0.7" high, 3-1/2 digit LCD
- Size (HWD):** 3.75" X 3.75" X 1.81"
- Power Supply:** 8 AA Alkaline batteries; up to 2 years continuous operation.

- Housing:** NEMA 4X; 1/4 DIN; 302SS; one-piece, Valox bezel and Buna-N gasket.
- Connections:** 1/2" NPT stainless steel half coupling welded to case.
- Operating Temperatures:** -13°/160° F (-25°/72° C), varies by power supply.
- Intrinsically Safe (FM Approved):** *Battery-powered:* Intrinsically safe for Class I, II and III, Div. I, Groups A-E, and G hazardous locations using RayOVac 815, Duracell MN1500, Eveready E91, or Panasonic AM3.

**Battery-operated!**  
 No need to run electricity!



#### Model Selection Guide

Description	Catalog Number	Price Each
DT-8310 Digital Temperature Indicator, FM-Approved, Battery Powered		
Field Mount	Type K (-50° to 450° F)	<b>L</b> DT-8311 \$465.63
	Type K (400° to 1500° F)	<b>L</b> DT-8331 465.63
	Type J (-50° to 450° F)	<b>L</b> DT-8351 465.63
Panel Mount	Type K (-50° to 450° F)	<b>L</b> DT-8312 452.13
	Type J (-50° to 450° F)	<b>L</b> DT-8352 374.62
DT-8310 Digital Temperature Indicator, External Power Supply (6-28 VDC)		
Panel Mount	Type K (-50° to 450° F)	<b>L</b> DT-8316 544.65
FM-Approved "AA" Alkaline Batteries (8-Pack)	<b>L</b> AA	6.99

Other ° F and ° C temperature ranges available. Call for pricing and delivery.

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01/2019 **LOOP POWERED INDICATORS 233** **L**



# Loop-Powered Indicators and Rate/Totalizers

## Meters in NEMA 4X Enclosures

### Common Features

- Loop powered, 4-20 mA input
- NEMA 4X/IP65 high impact plastic enclosure

### PD662 Survivor Process Indicator

- 3-1/2 digit 0.6" tall display (-1999 to 2999) with Min/Max
- 1.7 Volt drop
- Operates from -40° to 185° F
- HART® protocol transparent — Won't interfere with your ability to program HART devices on the same loop



### Model Selection Guide

Description	Catalog Number	Price
Loop-Powered Indicators in NEMA 4X Enclosures		
3-1/2 Digit, 0.6" LCD, No Options	PD662-0L0-00	\$234.00
3-1/2 Digit, 0.6" LCD, Backlight	PD662-0K0-00	284.00
Panel Mount Kit for PD662	PDA6624	51.00
Zinc-Plated Pipe Mount Kit with 2 Holes	PDA6845	51.00

### PD686 Process Meter

- 3-1/2 digit 1" tall display
- 1 Volt drop
- Operates from -40° to 185° F
- FM, CSA approvals: Intrinsically Safe Class I, II, III, Div. 1, Grps A-G, Non-Incendive Class I, II, III, Div. 2, Grps A-D, F, G



### Model Selection Guide

Description	Catalog Number	Price
Loop-Powered Indicators in NEMA 4X Enclosures		
3-1/2 Digit, 1" LCD, FM/CSA Approval	PD686	\$359.00
Panel Mount Kit for PD675 and PD686	PDA6844	51.00

### PD675 Process Meter

- 4-1/2 digit 0.7" tall display (19999)
- 5.2 Volt drop
- Operates from -40° to 185° F
- NEMA 4X I66/67 high impact plastic enclosure
- FM, CSA approvals: Non-incendive Class I, II, III Div. 2, Grps A-D, F, G



### Model Selection Guide

Description	Catalog Number	Price
Loop-Powered Indicators in NEMA 4X Enclosures		
4-1/2 Digit 0.7" Tall LCD, FM/CSA Approval	PD675-N	Call
Panel Mount Kit for PD675 and PD686	PDA6844	51.00



### Loop Leader Series Indicators

- Loop powered
- LCD display with five 0.6" tall digits
- Custom engineering units
- Bargraph display and trend arrow
- 1/8 DIN high impact plastic, shallow depth (3.2" behind panel) enclosure with Type 4X, IP65 front panel
- 2.0 Volt drop, 5.7 V with backlight
- Square root or programmable exponent



### PD683/PD688 Process Meters

- 4-20 mA input
- Operating temperature -20° to 149° F



### Model Selection Guide

Description	Catalog Number	Price
Loop Leader™ Panel Mount Loop-Powered Indicators, NEMA 4X Front Panels		
Backlit 5 Digit LCD, 1/8 DIN	PD683-0K0	\$488.00
Backlit 5 Digit LCD, 1/8 DIN, FM/CSA Approved	PD688-0K0	738.00

### PD684/PD689 Flow Rate/Totalizers

- 4-20 mA input
- Operating temperature -4° to 149° F
- Programmable alternating rate/total display
- Open collector alarm or pulse output
- PD689 FM approved, CSA certified intrinsically safe and non-incendive



### Model Selection Guide

Description	Catalog Number	Price
Panel Mount Loop-Powered Flow Rate Totalizers with NEMA 4X Front Panels		
Backlit 5 Digit LCD, 1/8 DIN	PD684-0K1	\$638.00
Backlit 5 Digit LCD, 1/8 DIN, FM/CSA Approved	PD689-0K1	908.00

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# ProtEX™ Explosion-Proof Digital Indicators



Precision Digital's ProtEX family of explosion-proof process meter brings sleek design, easy readability, and enhanced functionality to hazardous areas. The ProtEX display shows important information about your process, can be seen under varied lighting conditions, from wide angles, and from a distance.

ProtEX NEMA 4X/IP68 diecast aluminum enclosure provides protection from weather, high impact, corrosion and electrical interference.

Since you can't always look at the display from straight on, the window and display module have been optimized to provide a wide viewing angle of approximately ±40° — nearly twice that of other explosion-proof models on today's market.

### Through-Glass SafeTouch® Buttons

ProtEX has four sensors that operate as through-glass buttons so it can be programmed and operated without removing the cover and exposing the electronics in a hazardous area. The buttons can be disabled for security, and a 5-digit password prevents unauthorized changes to the programmed parameters.

ProtEX's rotatable display/meter module plus two available conduit connections means the display can be rotated in 90° increments for easy readability. Rotate it 90° for horizontal mounting, and route wiring to either the top conduit connection, or from below to the opposite conduit connection (metal conduit plug supplied). Use both conduit connections for through-wiring in any plane.

### Features

- 4–20 mA, 0-10 V, DC pulse, thermocouple, RTD, modbus, discrete, strain, or mV signals
- Modern, Sleek die-cast aluminum and practical enclosure
- SafeTouch® Through-Glass Button Programming
- Password Protection
- Loop or External DC-powered Backlight Standard
- Explosion-Proof, IP68, NEMA 4X Enclosure
- Flanges for wall or Pipe Mounting
- HART® Protocol Transparent
- Operates from -40 to 75° C
- Large, dual-line, LED or LCD displays
- Relays + 4-20 mA output options
- 24 VDC transmitter power supply
- Displays with wide viewing angle are mountable at 0°, 90°, 180°, and 270°
- FM, CSA, CE, ATEX, IEC approvals

## PD663 Process Meter

- 4-20 mA input
- 3-1/2 digit 0.6" tall display (-1999 to 2999) with Min/Max
- 1.7 Volt drop
- Four-button programming
- 32-point and square root linearization functions
- HART® protocol transparent — doesn't interfere with your ability to program HART devices on the same loop



### Model Selection Guide

Description	Catalog Number	Price
FM-Approved Process Meter, 0.6" Display	PD663-0L0-00	\$444.00
FM-Approved Meter, 0.6" Display, Backlit	PD663-0K0-00	494.00

### PROCESS



## PD6870 Large Display Process Meter

- 4-20 mA input
- 3-1/2 digits, 1" display
- Easy calibration and installation
- Loop-powered backlight option
- 1 V drop (4V with backlight)

### Model Selection Guide

Description	Catalog Number	Price
FM-Approved Process Meter, 1" Display	PD6870-0L0	\$629.00
FM-Approved Process Meter, 1" Display, Backlit	PD6870-0K0	679.00

### PROCESS



## PD6800 Process Meter

- 4-20 mA input loop-powered
- 5- digit, 0.7" upper display
- 7 alphanumeric character, 0.4" lower display
- 32-point, square root, or exponential linearization
- 3.0 V drop (6.0 V with backlight)

### Model Selection Guide

Description	Catalog Number	Price
FM-Approved Meter, 0.7" Display, Backlit	PD6800-0K0	\$799.00

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V 01.2019

**EXPLOSION-  
PROOF**

**235 L**

**Displays in  
Feet and  
Inches!**



**LEVEL**

### PD6801 Level Meter

- Display level in feet and inches — no translations needed!
- 4–20 mA input loop-powered
- Programmable 1/8" or 1/16" tall digital display
- 20–segment tank level indicator
- Lower display for tag, volume, or percent
- Open collector alarm output

### PD6820 Rate/Totalizer

- Flow rate in units per second, minute, hour, or day
- 4–20 mA input loop-powered
- 5–digit, 0.7" upper display, 7-character alphanumeric 0.4" lower display
- 3.0 V drop (6.0 V with backlight)
- 7–digit totalizer
- Open collector pulse or alarm output
- 32-point, square root, or exponential linearization



**FLOW RATE/TOTAL**

#### Model Selection Guide

Description	Catalog Number	Price
FM-Approved Level Meter, 0.7" Display, Backlit	PD6801-0K1	\$899.00

#### Model Selection Guide

Description	Catalog Number	Price
FM-Approved Rate/Totalizer, 3.5 Digit, Backlit	PD6820-0K1	\$859.00

## ProtEX-MAX PD8 Series

### Features

- Models available with ProVu®, Trident X2, Snooper, or Vigilante® II functionality
- Explosion-proof, IP68, NEMA 4X Enclosure
- Display mountable at 0°, 90°, 180°, and 270°
- SafeTouch® through-glass button programming
- Password Protection (Display models)
- Modbus® RS-485 serial communications on all standard ProVu and Trident models
- Flanges for wall or pipe mounting
- All models available with sunlight readable display

The ProtEX-MAX PD8 series combines the functions and features of any ProVu®, Trident X2, Snooper, or Vigilant® II model into a fully approved explosion-proof product.

Visit our website or call 800-953-7626 for model selection and delivery.

PD8s are available for all the series shown below.

Description		Series	Prices Start at
Single Input	Universal Process and Temperature Large Display Meter	PD8-765 (Trident X2)	\$1218.00
	Temperature Meter	PD8-7000	1198.00
	Analog Input Process Meter	PD8-6000	1198.00
	Analog Input Rate/Totalizer	PD8-6200	1228.00
	Analog Input Batch Controller	PD8-6210	1373.00
	Pulse Input Rate/Totalizer	PD8-6300	1228.00
	Pulse Input Batch Controller	PD8-6310	1373.00
Dual	Strain Gauge Meter	PD8-6100	1248.00
	Dual Analog Input Process Meter	PD8-6060	1318.00
	Dual Analog Input Rate/Totalizer	PD8-6262	1428.00
	Dual Pulse Input Rate/Totalizer	PD8-6363	1428.00

## PD8-765 ProtEX-MAX Large Display Process and Temperature Meter

- Input: 0–20 mA, 4–20 mA; ±10 VDC (0–5, 1–5, 0–10 V); Type J, K, T, and E thermocouples; Pt1000Ω RTD
- Linear or square root with low-flow cutoff
- 2 relays and 4–20 mA analog output options
- Display: Four 1.2"–tall digits, sunlight-readable, with minimum/maximum



**PROCESS**

**TEMPERATURE**

Single and dual 24 VDC transmitter power supplies optional

Description	Catalog Number	Price
No Options	PD8-765-6X0-00	Call
24 VDC Supply	PD8-765-6X0-10	1558.00
2 Relay Outputs	PD8-765-6X2-00	Call
2 Relays + 24 VDC Supply	PD8-765-6X2-10	Call
4-20 mA Output	PD8-765-6X3-00	Call
4-20 mA Output + 24 VDC Supply	PD8-765-6X3-10	Call
4-20 mA Output + Dual 24 VDC Supply	PD8-765-6X3-20	1718.00
2 Relays + 4-20 mA Output + 24 VDC Supply	PD8-765-6X5-10	1653.00

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# Scanners and Alarm Annunciators



## Vigilante® II Alarm Annunciators

- Four- or eight-point monitoring
- Switch, transistor, and logic level inputs
- All common ISA Sequences including First-Out
- Multiple-unit First-Out indication
- Built-in 85 dB horn
- Two SPDT relays for alarm activated devices
- Silence, acknowledge, and reset functions
- 24 VDC isolated power supply
- Free custom message labels
- Shallow depth 1/8 DIN case; Type 4X, NEMA 4X, IP65 front

### Model Selection Guide

Description	Catalog No.	Price
Vigilante® II 4-Point Annunciator, 85-265 VAC	PD154-6R2-1	\$349.00
Vigilante® II 8-Point Annunciator, 85-265 VAC	PD158-6R2-1	454.00
NEMA 4X Enclosure for One Unit	PDA2407	259.00



## PD138 Minimux® II Scanner

- Eight inputs/unit: Thermocouples, RTDs, process, AC/DC inputs; 4-20 mA inputs
- Independent alarm input and adjustable dwell time per channel
- First-Out alarm indication by LEDs, built-in horn, and relay, or field-select stop-on-alarmed channel

Minimux® II .....PD138-3 ..... \$329.00



## PDS178 Temperature Scanner/Alarm System

- PD765 Trident 1/8 DIN universal input meter with two relays
- PD138 Minimux II 8-channel scanner
- PD2821 plastic NEMA 4X enclosure

**Save almost \$150 when you buy the kit!**

Temperature Scanning/Alarm System..... PDS178 ..... \$649.00

## Precision Digital Meter Enclosures



### PDA2801-2821

- Gray plastic NEMA 4X/IP66 enclosure
- No agency approvals available
- Mounts horizontal or vertical



### PDA2501-2506

- Plastic NEMA 4X enclosures
- UL and CSA approved
- Mounts horizontal or vertical
- Gray thermoplastic
- Meter panel-mounts in cover



### PDA2701-2706

- Steel NEMA 4 enclosure
- UL and CSA approved
- Mounts horizontal or vertical
- Gray 14-gauge steel



### PDA2446

- Explosion-proof aluminum enclosure
- UL and cUL approvals
- NEMA 7 and 9, NEC Class I, Groups C-D, Class II, Groups E-G, Class III



### PDA2407-2415

- Plastic NEMA 4X enclosures
- UL and CSA approved
- Mounts horizontal or vertical
- Gray thermoplastic with clear polycarbonate cover

### Key to Meter Types

- A 1/8 DIN PD690-style meter
- C 1/8 DIN PD765 Trident-style meter
- D 1/8 DIN PD158 Vigilante (vertical)
- E ProVu series meters

### Model Selection Guide

Description	Catalog Number	Price
Enclosures for Mounting Meters Inside (Meter Fully Inside Enclosure)		
Plastic NEMA 4X, One Meter Any Type	PDA2407	\$259.00
Plastic NEMA 4X, Two Meters Any Type	PDA2411	Call
Enclosures for Panel-Type Mounting (Meter Mounts Onto Cover)		
Plastic NEMA 4X, One Type C Meter	PDA2801	99.00
Plastic NEMA 4X, One Type A, C, or E Meter	PDA2811	139.00
Plastic NEMA 4X, One Type C Meter	PDA2501	179.00
Plastic NEMA 4X, Two Type C Meters	PDA2502	209.00
Steel NEMA 4, Three Type C Meters	PDA2703	394.00
Steel NEMA 4, Four Type A, C, or E Meters	PDA2704	444.00

**Need a different enclosure style or size? Call Lesman.**

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