



ProtEX Series Hazardous Area Instruments

ProtEX™ - Innovative, great looking, and easy to read explosion-proof meters.



www.predig.com/protex

Why buy the ProtEX™ Series?

- Modern, sleek & practical enclosures
- See display from wide angles
- Can be installed virtually anywhere
- Easy field setup and wiring
- 37 years of design experience
- Extensive product approvals



PD6800



Alphanumeric tag names

SafeTouch® buttons

Process Meter

- 5-digit, 0.7" & 7-character, 0.4" display
- 4-20 mA input loop-powered
- SafeTouch® through-glass programming
- 32-point linearization
- 3 V drop (5.8 V with backlight)

PD6820



Simultaneous rate & total

SafeTouch® buttons

Analog Input Rate/Totalizer

- 5-digit, 0.7" & 7-character, 0.4" display
- 4-20 mA input loop-powered
- SafeTouch® through-glass programming
- 32-point linearization
- Open collector pulse or alarm output

PD6830



Multi-powered

SafeTouch® buttons

Pulse Input Rate/Totalizer

- 5-digit, 0.7" & 7-character, 0.4" display
- Battery, DC, or output loop powered
- SafeTouch® through-glass programming
- 32-point linearization
- Isolated 4-20 mA output

PD6870



Large display

Large Display Process Meter

- 3½ digits, 1" high
- 4-20 mA input loop-powered
- HART® protocol transparent
- Easy calibration and installation
- 1 V drop (4 V with backlight)

PD663



Low-cost

Low-Cost Process Meter

- 3½+ digits LCD, 0.6" high
- 4-20 mA input loop-powered
- Four button programming
- Max/min display
- 1.7 V drop (4.7 V with backlight)

New ProtEX™ Series

The new ProtEX™ series of explosion-proof meters brings modern design, easy readability, and enhanced functionality to hazardous areas around the world in a way never seen before. Other manufacturers seem to ignore the fact that customers are constantly viewing this type of meter. Customers want a meter that looks nice so they can be proud to install it in their facility. And they want a meter with a display that provides the important information about their process, can be seen under varied lighting conditions, from wide angles, and a distance. ProtEX™ delivers all these and more.

PD6800	PD6820	PD6830	PD6870	PD663
ProtEX-Pro Full-Featured Process Meter	ProtEX-RTA Analog Input Rate/Totalizer	ProtEX-RTP Pulse Input Rate/Totalizer	ProtEX-FarVu Large Display Process Meter	ProtEX-Lite Low-Cost Process Meter
Alphanumeric tag names	Simultaneous rate & total	Multi-powered	Large display	Low-cost

There is a ProtEX™ Meter to Fit Every Application and Budget

At the top of the line are the ProtEX-Pro, the ProtEX-RTA, and ProtEX-RTP. These full-featured meters have a dual-line display, convenient through-glass infrared SafeTouch® buttons, 32-point linearization and the ability to display rate and total.

The ProtEX-FarVu has the largest display in the ProtEX line and is great for applications where the display has to be seen from a distance.

The ProtEX-Lite comes in a smaller enclosure and is perfect for applications where cost is the main consideration.



-40 to 75°C

NEMA 4X / IP68

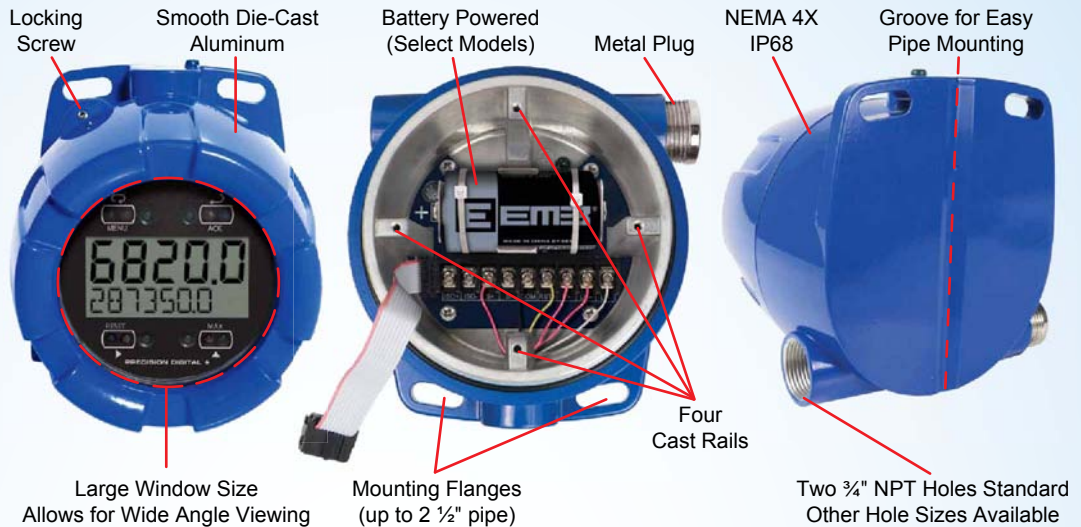
Corrosion Proof

ProtEX Meters Go Just About Anywhere

The ProtEX Series not only looks great with their modern, smooth die cast aluminum enclosures, but they can be installed virtually anywhere. The NEMA 4X / IP68 enclosure provides serious protection from the elements, high impact, corrosion and electrical interference and the extensive, worldwide agency approvals means they can be installed virtually anywhere.

Enclosure Features

The ProtEX explosion-proof enclosures are ingeniously designed to make wiring, mounting, and viewing significantly easier. The smooth die-cast finish gives it a sleek look. Each enclosure comes with multiple 3/4" NPT holes, and a metal plug.



Key Feature

SafeTouch® Through-Glass Button Programming

One of the most innovative and useful features of the PD6800, PD6820, and PD6830 is their ability to be programmed without removing the cover. To actuate a button using SafeTouch® programming, simply press one finger to the glass directly over the marked button 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. There are four mechanical buttons that can be used when the instrument is programmed on the bench.



Product Approvals

Worldwide Approved

FM: Explosion-proof for use in Class I, Division 1, Groups B, C, D. Class II, Division 1, Groups E, F, G. Class III, Division 1; T6. Class I, Zone 1, AEx d IIC T6 Gb. Zone 21, AEx tb IIIC T85°C. Ta = -40 to 75°C. Enclosure: Type 4X & IP66. Certificate number: 3040391

ATEX: II 2 G D. Ex d IIC T6 Gb. Ex tb IIIC T85°C Db IP68. Ta = -40 to 75°C. Certificate number: Sira 10ATEX1116X

IECEX: IECEX SIR 10.0056X. Ex d IIC T6 Gb. Ex tb IIIC T85°C Db IP68. Ta = -40 to 75°C

CSA: Class I, Division 1, Groups B, C, D. Class II, Division 1, Groups E, F, G. Class III, Division 1; T6. Class I, Zone 1, Ex d IIC T6. Ta = -40 to 75°C. Enclosure: Type 4X & IP66. Certificate number: 11 2325749



All ProtEX™ models approved as complete products



Spacious and Smart Interior

The ProtEX™ meters were designed with the person installing the meter on a cold, windy day in mind; he wants to get the job done quickly and easily! The interior of the PD6800, PD6820, and PD6830 enclosures is spacious enough to allow for easy wiring and access to terminal blocks. Four built-in cast rails provide a perfect fit for mounting the display module, eliminating the use of

standoffs. The meter module inside the PD6800, PD6820 and PD6830 is simple to completely remove, and set aside. A heavy duty terminal block is then easily accessed. It is clearly marked to prevent wiring errors. Since the meter module can be removed without breaking the loop, it can be serviced without the need to uninstall the entire product.

Best Display on the Market

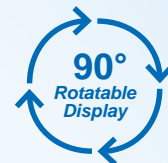
The most important thing customers do with these instruments is look at them and everything about them is designed for maximum viewing performance. The viewing angle on the ProtEX™ meters is an impressive +/- 40°, (nearly twice the competition), the big digits are easily read from a distance, and the backlight means the display can be read in dimly lit areas.



Wide Viewing Angle

Flexible Mounting with Rotatable Display

Conduit runs are not always done in the most convenient fashion for mounting instruments; that's why the ProtEX's display module can be rotated in 90° increments. No more reading upside down displays with the ProtEX!



View not optimized

Rotating the display

View is optimized



Model	PD663 ProtEX-Lite	PD6870 ProtEX-FarVu	PD6800 ProtEX-Pro	PD6820 ProtEX-RTA	PD6830 ProtEX-RTP
Type	Process	Process	Process	Rate/Total	Rate/Total
Input	4-20 mA	4-20 mA	4-20 mA	4-20 mA	Pulse
Display	3½+ digits 0.6" (15.2 mm)	3½ digits 1.0" (25.4 mm)	5-digit 0.7" (17.8 mm)	5-digit 0.7" (17.8 mm)	5-digit 0.7" (17.8 mm)
Upper Display	None	None	0.4" (10.2 mm)	0.4" (10.2 mm)	0.4" (10.2 mm)
Lower Display	None	None	None	None	None
Process/Rate	2,999	1,999	99,999	99,999	99,999
Total	N/A	N/A	N/A	9,999,999	9,999,999
Rate & Total	N/A	N/A	N/A	Dual	Dual
Programming Method	Front Panel Magnet	Front Panel	Front Panel SafeTouch®	Front Panel SafeTouch®	Front Panel SafeTouch®
Voltage Drop	1.7 V (4.7 V)*	1.0 V (4.0 V)*	3.0 V (6.0 V)*	3.0 V (6.0 V)*	N/A
Power Options	Input Loop	Input Loop	Input Loop	Input Loop	Output Loop, Battery, 12-36 VDC
Backlight	Optional	Optional	Standard	Standard	Standard
Mounting	Wall, Pipe, Conduit	Wall, Pipe, Conduit	Wall, Pipe, Conduit	Wall, Pipe, Conduit	Wall, Pipe, Conduit
Operating Temp	-40 to 75°C	-40 to 75°C	-40 to 75°C	-40 to 75°C	-40 to 75°C
Approvals	FM, CSA, ATEX, IECEX, CE	FM, CSA, ATEX, IECEX, CE	FM, CSA, ATEX, IECEX, CE	FM, CSA, ATEX, IECEX, CE	FM, CSA, ATEX, IECEX, CE
Standard Warranty	3 Years	3 Years	3 Years	3 Years	3 Years
Starting Price	\$379	\$479	\$599	\$659	\$659
Comparable Legacy Models					
	Old Model	PD661	PD687	PD677	PD698
	Type	Process	Process	Process	Rate/Total
	Input	4-20 mA	4-20 mA	4-20 mA	4-20 mA
	Display	3½ digits 0.5" (12.7 mm)	3½ digits 1.0" (25.4 mm)	4½ digits 0.7" (17.8 mm)	6-digit 0.5" (12.7 mm)
Upper Display	None	None	None	None	
Lower Display	None	None	None	None	
Process/Rate	1,999	1,999	19,999	19,999	
Total	N/A	N/A	N/A	999,999	
Rate & Total	N/A	N/A	N/A	Toggle	
Programming Method	Jumpers & Trimpots	Jumpers & Trimpots	Jumpers & Trimpots	Jumpers & Trimpots	
Voltage Drop	1.5 V (3.5 V)*	1.0 V	5.2 V	5.6 V (7.0 V)*	
Power Options	Loop-Power	Loop-Power	Loop-Power	Loop-Power	
Backlight	Optional	N/A	N/A	Optional	
Mounting	Pipe, Conduit	Wall, Pipe, Conduit	Wall, Pipe, Conduit	Wall, Pipe, Conduit	
Operating Temp	-40 to 80°C	-40 to 80°C	-20 to 65°C	0 to 65°C	
Approvals	FM, CSA	FM, CSA	FM, CSA	FM, CSA	
Standard Warranty	2 Years	2 Years	2 Years	2 Years	
Starting Price	\$419	\$679	\$619	\$674	

* Voltage drop with backlight option.

Important Info

Discontinuance of Legacy Models

Precision Digital's new ProtEX models are replacing the PD661, PD687, PD677, and the PD698. The ProtEX family has more approvals, is functionally superior, and is much better looking than the older models. As such, the new models will quickly be the product of choice. On this type of product, it becomes very costly to support the legacy products in low volume. Therefore, on 8/1/11 the prices of the legacy models will be increased by 25% and supply will be limited. Please make your customers aware of the new ProtEX models ASAP so that they may evaluate the ProtEX as a replacement product and have time to update their drawings, etc.

Loop Leader®

APPROVED WORLDWIDE
Now CE marked & ATEX Certified



Loop Leader® Series

Key Features

- 4-20 mA input
- 5-digit display, 0.6" (15.2 mm) LCD
- Loop-powered backlight standard
- Custom engineering units
- Bargraph display
- Operating temperature -30 to 65°C
- CE marked
- ATEX, FM, CSA approved (Certified intrinsically safe/non-Incendive) (PD688/PD689 only)



LMDPROTEX_D 05/11