PD6801 Explosion-Proof Loop-Powered Feet & Inches Level Meter
Instruction Manual

- Fully-Approved Explosion-Proof Loop-Powered Meter
- 4-20 mA Input with ±0.03% Accuracy
- 3.0 Volt Drop (6.0 Volt Drop with Backlight)
- Easy Field Scaling in Engineering Units without Applying an Input
- 0.6" (15.2 mm) Feet & Inches Upper Display With 1/8 or 1/16 Resolution
- 0.4" (10.2 mm) 7 Alphanumeric Characters Lower Display for Tag, Volume, or Percent
- Display Level in Feet & Inches and Volume, Percent or Decimal Height Simultaneously
- Display Mountable at 0°, 90°, 180°, & 270°
- SafeTouch™ Through-Glass Button Programming
- 20-Segment Tank Side Level Indicator Bargraph
- Open Collector Output Assignable to High or Low Alarm
- HART® Protocol Transparent
- Loop or External DC-Powered Backlight Standard
- Operating Temperature Range: -40 to 75°C (-40 to 167°F)
- FM Approved as Explosion-Proof / Dust-Ignition Proof / Flame-Proof
- CSA Certified as Explosion-Proof / Dust-Ignition Proof / Flame-Proof
- ATEX and IECEx Certified as Flame-Proof and Protection by Enclosure
- Conformal Coated PCBs for Dust and Humidity Protection
- Password Protection
- 32-Point Linearization
- Wide Viewing Angle
- Flanges for Wall or Pipe Mounting
- Explosion-Proof, IP68, NEMA 4X Die-Cast Aluminum Enclosure
- Two 3/4" NPT Threaded Conduit Openings (One Plug Installed)
- 2" U-Bolt Kits Available
- 3-Year Warranty

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Disclaimer
The information contained in this document is subject to change without notice. Precision Digital Corporation makes no representations or warranties with respect to the contents hereof; and specifically disclaims any implied warranties of merchantability or fitness for a particular purpose.

CAUTION
• Read complete instructions prior to installation and operation of the meter.

WARNING
• Risk of electric shock or personal injury.
• This product is not recommended for life support applications or applications where malfunctioning could result in personal injury or property loss. Anyone using this product for such applications does so at his/her own risk. Precision Digital Corporation shall not be held liable for damages resulting from such improper use.
• Failure to follow installation guidelines could result in death or serious injury. Make sure only qualified personnel perform the installation.
• Never remove the meter cover in explosive environments when the circuit is live.
• Cover must be fully engaged to meet flameproof/explosion-proof requirements.

Introduction
The ProtEX-F&I PD6801 is a rugged, explosion-proof loop-powered indicator specifically designed for level applications in hazardous areas or in the harshest environmental conditions. The meter displays level in easy to read and understand feet, inches, and fractions of an inch; and a 20-segment tank level indicator. The lower display can show a custom unit or tag, percent full, or a second scale for the 4-20 mA input used to indicate volume.

The meter derives all of its power from the 4-20 mA loop. It is programmed using the four SafeTouch through-glass buttons, without removing the cover, and can be scaled with or without a calibration signal. The upper display will read up to 699 ft. – 11 15/16 inches. The alphanumeric volume/tag display will read up to 9,999,999. The alphanumeric display can also be programmed to show any combination of numbers and letters up to seven characters long for use as engineering units and/or the process identification tag. The backlight lets you see the display under any lighting condition and can be powered from either the 4-20 mA loop or from a separate DC power supply.

The enclosure is provided with two threaded conduit holes and integrated pipe or wall mounting slotted flanges.

Ordering Information

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PD6801-0K1</td>
<td>Explosion-Proof Loop-Powered Feet &amp; Inches Level Meter with backlight</td>
</tr>
</tbody>
</table>

Accessories

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PDA0001</td>
<td>3/4” M-NPT to F-M20 Reducer</td>
</tr>
<tr>
<td>PDA0002</td>
<td>3/4” M-NPT to 1/2” F-NPT Reducer</td>
</tr>
<tr>
<td>PDA1024-01</td>
<td>24 VDC Power Supply for DIN Rail</td>
</tr>
<tr>
<td>PDA6846</td>
<td>Steel 2” U-Bolt Kit. All Material: Zinc Plated Steel; (1) U-Bolt for 2” Pipe with (2 each) Washers, Lock Washers, and Nuts.</td>
</tr>
<tr>
<td>PDA6846-SS</td>
<td>Stainless Steel 2” U-Bolt Kit. All Material: Stainless Steel; (1) U-Bolt for 2” Pipe with (2 each) Washers, Lock Washers, and Nuts.</td>
</tr>
<tr>
<td>PDA-SSTAG</td>
<td>Custom Stainless Steel Tag (see website for convenient ordering form)</td>
</tr>
</tbody>
</table>

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Specifications

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

General

<table>
<thead>
<tr>
<th>Display</th>
<th>Feet &amp; Inches</th>
<th>0.60&quot; (15.2 mm) high</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 to 699 FT 11 15/16 IN</td>
<td>7-segment, programmable</td>
</tr>
<tr>
<td></td>
<td>1/16 or 1/8 fraction display</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.4&quot; (10.2 mm) high</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14-segment, 7-digits</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tank Level Indicator</td>
<td>20-segments</td>
</tr>
<tr>
<td>Display Orientation</td>
<td>Display may be mounted at 90° increments up to 270° from default orientation.</td>
<td></td>
</tr>
<tr>
<td>Display Assignment</td>
<td>Upper display: Feet &amp; inches</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lower display may be assigned to custom unit or tag, volume, volume and tag, percent height, percent height and tag, or off.</td>
<td></td>
</tr>
<tr>
<td>Display Update Rate</td>
<td>Ambient &gt; -25°C: 2 Updates/Second</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ambient &lt; -25°C: 1 Update/5 Seconds</td>
<td></td>
</tr>
<tr>
<td>Backlight</td>
<td>White; Loop-powered or externally powered.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Backlight can be enabled or disabled via alternative wiring of terminal block. Loop-powered backlight brightness will increase as the input signal current increases. Externally powered backlight has consistent brightness.</td>
<td></td>
</tr>
</tbody>
</table>

Externally Powered Backlight

<table>
<thead>
<tr>
<th>Voltage Range</th>
<th>Maximum Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-36 VDC</td>
<td>9 VDC</td>
</tr>
<tr>
<td></td>
<td>12 VDC</td>
</tr>
<tr>
<td></td>
<td>24 VDC</td>
</tr>
<tr>
<td></td>
<td>36 VDC</td>
</tr>
<tr>
<td>0.2 W</td>
<td>0.25 W</td>
</tr>
<tr>
<td>0.5 W</td>
<td>0.75 W</td>
</tr>
</tbody>
</table>

Overrange And Underrange

Level display flashes to 699 FT 11 15/16 IN |
Volume display flashes 9999999 if overrange, -9999999 if underrange.

Programming Method

Four SafeTouch through-glass 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.

Max/Min Display

Max/Min readings reached by the process are stored until reset by the user or until power to the meter is turned off.

Password

Programmable password restricts modification of programmed settings.

Non-Volatile 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

Explosion-proof die cast aluminum with glass window, corrosion resistant epoxy coating, color: blue. NEMA 4X, 7, & 9, IP68. Two ½" NPT threaded conduit openings. One ½" NPT metal conduit plug with 12 mm hex key fitting installed.

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 Dimensions on page 7.

Overall Dimensions

5.65" x 5.25" x 4.86" (W x H x D) |
(144 mm x 133 mm x 124 mm)

Weight

5.00 lbs (80 oz, 2.27 kg)

Warranty

3 years parts and labor. See Warranty Information and Terms & Conditions on www.predig.com for complete details.

Input

<table>
<thead>
<tr>
<th>Input</th>
<th>4-20 mA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>±0.03% of calibrated span ±1 count</td>
</tr>
<tr>
<td>Maximum Voltage Drop &amp; Equivalent Resistance</td>
<td>Without Backlight</td>
</tr>
<tr>
<td></td>
<td>With Loop-Powered Backlight</td>
</tr>
<tr>
<td>Resistance</td>
<td>3.0 VDC @ 20 mA</td>
</tr>
<tr>
<td></td>
<td>6.0 VDC @ 20 mA</td>
</tr>
<tr>
<td></td>
<td>150 Ω @ 20 mA</td>
</tr>
<tr>
<td></td>
<td>300 Ω @ 20 mA</td>
</tr>
<tr>
<td>Temperature Drift</td>
<td>50 PPM/°C from -40 to 75°C ambient</td>
</tr>
<tr>
<td>Multi-Point Linearization</td>
<td>2 to 32 points, level and volume independently programmed.</td>
</tr>
<tr>
<td>Minimum Span</td>
<td>Input 1 &amp; Input 2: 0.10 mA</td>
</tr>
<tr>
<td>Calibration Range</td>
<td>An Error message will appear if input 1 and input 2 signals are too close together.</td>
</tr>
<tr>
<td></td>
<td>Input 1 &amp; Input 2:</td>
</tr>
<tr>
<td></td>
<td>4-20 mA</td>
</tr>
<tr>
<td></td>
<td>0.10 mA</td>
</tr>
<tr>
<td>Input Overload</td>
<td>Over current protection to 2 A max.</td>
</tr>
</tbody>
</table>

HART Transparency

The meter does not interfere with existing HART communications; it displays the 4-20 mA primary variable and it allows the HART communications to pass through without interruption. The meter is not affected if a HART communicator is connected to the loop. The meter does not display secondary HART variables.

Open Collector Output

<table>
<thead>
<tr>
<th>Rating</th>
<th>Isolated open collector, sinking NPN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>30 VDC @ 150 mA max.</td>
</tr>
<tr>
<td>Alarm Output</td>
<td>Assign to level or volume for high or low alarm trip point.</td>
</tr>
<tr>
<td>Deadband</td>
<td>0-100% FS, user selectable</td>
</tr>
<tr>
<td>Acknowledge</td>
<td>Front panel ENTER button and external RESET terminals resets output and screen indication.</td>
</tr>
</tbody>
</table>
Product Ratings and Approvals

**FM**
- Explosion-proof for use in:
  - Class I, Division 1, Groups B, C and D
  - Dust-ignition proof for use in:
  - Class II/III, Division 1, Groups E, F and G; T6
  - Flame-proof for use in:
  - Class I, Zone 1, AEx d Group IIC; T6
- Protection by Enclosure:
  - Zone 21, AEx tb IIC; T85°C
  - Ta = -40 to 75°C
- Enclosure: Type 4X, IP66
- Certificate number: 3040391

**CSA**
- Explosion-proof for use in:
  - Class I, Division 1, Groups B, C and D
  - Dust-ignition proof for use in:
  - Class II/III, Division 1, Groups E, F and G; T6
  - Flame-proof for use in:
  - Zone 1, Ex d IIC T6
  - Ta = -40 to 75°C
  - Enclosure: Type 4X & IP66/IP68
- Certificate number: 2325749

**ATEX**
- II 2 G D. Flame-proof for use in:
  - Zone 1, Ex d IIC T6 Gb
  - Protection by Enclosure for use in:
  - Dust Atmospheres (Zone 21)
  - Ex tb IIIC T85°C Db IP68
  - Ta = -40°C to +75°C
- Certificate number: Sira 10ATEX1116X

**IECEx**
- Flame-proof for use in:
  - Zone 1, Ex d IIC T6 Gb
  - Protection by Enclosure for use in:
  - Dust Atmospheres (Zone 21)
  - Ex tb IIIC T85°C Db IP68
  - Ta = -40°C to +75°C
- Certificate number: IECEx SIR 10.0056X

**Special Conditions for Safe Use:**
Use suitably certified and dimensioned cable entry device and/or plug. The equipment shall be installed such that the supply cable is protected from mechanical damage. The cable shall not be subjected to tension or torque. If the cable is to be terminated within an explosive atmosphere, then appropriate protection of the free end of the cable shall be provided.

**Year of Construction:**
This information is contained within the serial number with the first four digits representing the year and month in the YYMM format.

**For European Community:** The PD6801 must be installed in accordance with the ATEX directive 94/9/EC, and the product certificate Sira 10ATEX1116X.

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**Electromagnetic Compatibility**

**Emissions**
- EN 61326:2013
- Safety requirements for measurement, control, and laboratory use – Industrial Group 1 Class A ISM emissions requirements

**Radiated Emissions**
- Class A

**Immunity**
- EN 61326:2013
- Safety requirements for measurement, control, and laboratory use

- **ESD**
  - ±4 kV contact, ±8 kV air

- **RFI**
  - Amplitude
    - 80-1000 MHz @ 10 V/m,
    - 1.4-2.0 GHz @ 3 V/m,
    - 2.0-2.7 GHz @ 1 V/m,
    - 80% AM (1 kHz)

- **EFT**
  - ±2 kV DC mains, ±1 kV other

- **Telco Surge**
  - ±1 kV

- **CRFI**
  - 3 V, 0.15-80 MHz, 1 kHz 80% AM

---

**Safety Information**

⚠️ **WARNINGS**
- Read complete instructions prior to installation and operation of the meter.
- Installation and service should be performed only by trained service personnel. Service requiring replacement of internal components must be performed at the factory.
- Disconnect from supply before opening enclosure. Keep cover tight while circuits are alive. Conduit seals must be installed within 18” (450mm) of the enclosure.
- Verify that the operating atmosphere of the meter is consistent with the appropriate hazardous locations certifications.
- If the meter is installed in a high voltage environment and a fault or installation error occurs, high voltage may be present on any lead.
Installation

For Installation in USA: The PD6801 must be installed in accordance with the National Electrical Code (NEC) NFPA 70.

For Installation in Canada: The PD6801 must be installed in accordance with the Canadian Electrical Code CSA 22.1. All input circuits must be derived from a CSA approved Class 2 source.

For European Community: The PD6801 must be installed in accordance with the ATEX directive 94/9/EC and the product certificate Sira 10ATEX1116X.

⚠️ WARNING

- Disconnect from supply before opening enclosure. Keep cover tight while circuits are alive. Conduit seals must be installed within 18" (450mm) of the enclosure.

Wiring connectors are accessed by opening the enclosure. To access electrical connectors, remove the 2 captive screws, then disconnect the ribbon cable from the display module and set the display module aside.

Unpacking

Remove the meter from box. Inspect the packaging and contents for damage. Report damages, if any, to the carrier.

If any part is missing or the meter malfunctions, please contact your supplier or the factory for assistance.

Pre-Installed Conduit Plug

The PD6801 is supplied with one pre-installed conduit plug for installations that do not require the use of both conduit entries. The conduit/stopping plug includes an internal hexagonal socket recess for removal. The conduit plug and its factory installation are included in all hazardous area approvals of this product.

⚠️ WARNING

- In hazardous areas, conduit and conduit/stopping plugs require the application of non-setting (solvent free) thread sealant. It is critical that all relevant hazardous area guidelines be followed for the installation or replacement of conduit or plugs.

Mounting

The PD6801 has two slotted mounting flanges that may be used for pipe mounting or wall mounting. Alternatively, the unit may be supported by the conduit using the conduit holes provided. Refer to Figure 1 and Figure 2.

⚠️ WARNING

- Do not attempt to loosen or remove flange bolts while the meter is in service.

Dimensions

All units: inches [mm]

![Figure 1. Enclosure Dimensions – Front View](image1)

![Figure 2. Enclosure Dimensions – Side Cross Section View](image2)
Cover Jam Screw

The cover jam screw should be properly installed once the meter has been wired and tested in a safe environment. The cover jam screw is intended to prevent the removal of the meter cover in a flame-proof environment without the use of tools. Using a M2 hex wrench, turn the screw clockwise until the screw contacts the meter. Turn the screw an additional 1/4 to 1/2 turn to secure the cover. Caution: Excess torque may damage the threads and/or wrench.

Connections

To access the connectors, remove the enclosure cover and unscrew the two captive screws that fasten the display module. Disconnect the ribbon cable and remove the display module. Signal connections are made to a four-terminal connector in the base of the enclosure. Grounding connections are made to the two ground screws provided on the base – one internal and one external.

| SIGNAL + | 4-20 mA signal input positive terminal connection |
| SIGNAL - | 4-20 mA signal return/negative terminal connection when not using loop powered backlight. |
| BACKLIGHT + | +9-30 VDC when powering backlight from external supply. |
| BACKLIGHT - | 4-20 mA signal return/negative terminal when using the installed loop powered backlight or ground/negative when powering backlight from external supply. |
| OUTPUT+ | NPN open collector output positive. |
| OUTPUT- | NPN open collector output negative. |
| RESET + | Contact closure alarm acknowledge pull up to 3 VDC. |
| RESET- | Contact closure alarm acknowledge ground/negative. |

Refer to Figure 3 for terminal positions.

**WARNINGS**

- Observe all safety regulations. Electrical wiring should be performed in accordance with all agency requirements and applicable national, state, and local codes to prevent damage to the meter and ensure personnel safety.
- Static electricity can damage sensitive components.
- Observe safe handling precautions for static-sensitive components.
- Use proper grounding procedures/codes.
- If the meter is installed in a high voltage environment and a fault or installation error occurs, high voltage may be present on any lead or terminal.

![Figure 3. Connector Board](image-url)
Wiring Diagrams

Signal connections are made to a four-terminal connector mounted in the base of the enclosure per Figure 3. Connector Board. The enclosure also provides one internal and one external earth grounding screw.

For installations that don’t use the backlight, the maximum voltage drop is 3 V and connections are made per Figure 4.

For installations that use the backlight powered from the meter, the maximum voltage drop is 6 V and connections are made per Figure 5.

For installations that use the backlight powered from an external source, the maximum voltage drop is 3 V and connections are made per Figure 6.

External Acknowledge Connection

External acknowledge connections are made to two terminals labeled RESET. Connect to a contact closure source such as a relay or a pushbutton as shown in Figure 7.

Open Collector Output Connections

Output connections are made to two terminals labeled OUTPUT. Connect to an input device such as alarm indicator as shown in Figure 8 or drive a relay as shown in Figure 9.

WARNING

- To avoid damaging the PD6801’s amplifying components, use care not to wire incorrectly or exceed output ratings. A diode, such as 1N4000 series, will provide protection from relay transients.
Setup and Programming

There is **no need to recalibrate** the meter for milliamps when first received from the factory.

The meter is **factory calibrated** for milliamps prior to shipment. The calibration equipment is traceable to NIST standards.

**Overview**

Setup and programming is done through the infrared through-glass SafeTouch buttons or using the mechanical buttons when uncovered. There are two slide switches located on the connector board. One is used to select backlight power and the other is to lock or unlock the SafeTouch Buttons.

After all connections have been completed and verified, connect the ribbon cable to the display module, fasten the display module to the base, install enclosure cover, and then apply power.

**SafeTouch Buttons**

The PD6801 is equipped with four sensors that operate as through-glass SafeTouch 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 SAFE-TOUCH BUTTONS switch located on the connector board in the base of the enclosure.

**SafeTouch Button Operation**

To actuate a button, press and remove one finger to the glass directly over the marked button area. Remove finger to at least 4 inches away from the glass in between button activations. SafeTouch and mechanical buttons may be held to cycle through menus or digits in place of repeatedly pushing a button. The sensors are disabled when a mechanical button is pressed and will automatically be re-enabled after 60 seconds of inactivity.

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**SafeTouch Button Tips and Troubleshooting**

The SafeTouch buttons are designed to filter normal levels of ambient interference and to protect against false triggering, however, it is recommended that the SafeTouch buttons be disabled (slide switch to LOCK) if there is an infrared interference source in line-of-sight to the display.

**SafeTouch Button Tips:**

- To the extent possible, install the display facing away from sunlight, windows, reflective objects and any sources of infrared interference.
- Keep the glass window clean.
- Tighten the cover securely.
- Use a password to prevent tampering.
- If the cover has not been installed and secured tightly, it may take a moment for the SafeTouch buttons to properly self-calibrate when the cover is tightened.

**IMPORTANT**

- SafeTouch buttons will not work if two or more buttons are detected as being pressed simultaneously. As a result, be careful to avoid triggering multiple buttons or reaching across one button location to press another.
Buttons and Display

Menu Button
- Press the Menu button to enter Programming Mode.
- Press the Menu button during Programming Mode to return to the previous menu selections.
- Hold the Menu button for 1.5 seconds at any time to exit Programming Mode and return to Run Mode.
- Press and hold the Menu button for 5 seconds to access the Advanced Features of the meter.

Right / Reset Button
- Press the Right arrow button to reset the maximum or minimum value while it is being displayed (see Up / Display Button below).
- Press the Right arrow button to move to the next digit or decimal position during programming.
- Press Right to go backward through most selection menus.

Up / Display Button
- Press Display when in Run Mode to cycle through displaying the maximum value, minimum value, and the loop input value in mA. The display will time out in 12 seconds. Press Display again to resume normal lower display operation (lower display will read RESUME).
- Press the Up arrow button to scroll forward through the menus, decimal point, or to increment the value of a digit.

Enter Button
- Press the Enter button to access a menu or to accept a setting.
- Press Enter to acknowledge alarm (if enabled).
Main Menu Display Functions & Messages

The meter displays various functions and messages during setup, programming, and operation. The following table shows the main menu functions and messages in the order they appear in the menu.

<table>
<thead>
<tr>
<th>Display</th>
<th>Parameter</th>
<th>Action/Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>SETUP</td>
<td>Setup</td>
<td>Enter Setup menu</td>
</tr>
<tr>
<td>SCALE</td>
<td>Scale</td>
<td>Enter the Scale menu for feet and inches</td>
</tr>
<tr>
<td>INPUT 1</td>
<td>Input 1</td>
<td>Set input 1 value in mA</td>
</tr>
<tr>
<td>DISPLAY 1</td>
<td>Display 1</td>
<td>Set display 1 feet and inches</td>
</tr>
<tr>
<td>INPUT 2</td>
<td>Input 2</td>
<td>Set input 2 value in mA</td>
</tr>
<tr>
<td>DISPLAY 2</td>
<td>Display 2</td>
<td>Set display 2 feet and inches</td>
</tr>
<tr>
<td>SAVE ?</td>
<td>Save</td>
<td>Save entered scale parameters</td>
</tr>
<tr>
<td>SPN ERR</td>
<td>Span Error</td>
<td>Scale point 1 and 2 span error</td>
</tr>
<tr>
<td>FRACTN</td>
<td>Fraction</td>
<td>Enter the Program menu</td>
</tr>
<tr>
<td>1/16th</td>
<td>1/16th</td>
<td>Set display for 1/16th inch fractions</td>
</tr>
<tr>
<td>OFF</td>
<td>Off</td>
<td>Turn off inch fraction display</td>
</tr>
<tr>
<td>1/8th</td>
<td>1/8th</td>
<td>Set display for 1/8th inch fractions</td>
</tr>
<tr>
<td>PERCENT</td>
<td>Percent</td>
<td>Scale the tank indicator full and empty values</td>
</tr>
<tr>
<td>0 PCT</td>
<td>0 Percent</td>
<td>Set the tank empty value</td>
</tr>
<tr>
<td>100 PCT</td>
<td>100 Percent</td>
<td>Set the tank full value</td>
</tr>
<tr>
<td>DISPLAY</td>
<td>Display</td>
<td>Enter Lower Display menu</td>
</tr>
<tr>
<td>TAG</td>
<td>Tag</td>
<td>Display a custom unit or tag</td>
</tr>
<tr>
<td>VOLUME</td>
<td>Volume</td>
<td>Display volume</td>
</tr>
<tr>
<td>VOL+TAG</td>
<td>Volume + Tag</td>
<td>Display volume and custom tag</td>
</tr>
<tr>
<td>PCT HT</td>
<td>Percent Height</td>
<td>Display percent height</td>
</tr>
<tr>
<td>PCT+TAG</td>
<td>Percent Height + Tag</td>
<td>Display percent height and custom tag</td>
</tr>
</tbody>
</table>

Main Menu

The main menu consists of the most commonly used functions: Setup, Advanced, and Password.

Press MENU button to enter Programming Mode then press the Up Arrow button to scroll through the main menu.

Hold MENU, at any time, to exit and return to Run Mode. Changes made to settings prior to pressing ENTER are not saved.

Press the MENU button during Programming Mode to return to the previous menu selections.

Changes to the settings are saved to memory only after pressing ENTER.

The display moves to the next menu every time a setting is accepted by pressing ENTER.
Setting Up the Meter (SETUP)

The Setup menu is used to select:
1. Feet and inches display scale
2. Inch fraction display mode
3. Tank indicator full value
4. Lower display selection

Press the ENTER button to access any menu or press UP arrow button to scroll through choices.

Hold MENU, at any time, to exit and return to Run Mode. Changes made to settings prior to pressing ENTER are not saved.

Press the MENU button during Programming Mode to return to the previous menu selections.

Setting Numeric Values

The numeric values are set using the RIGHT and UP arrow buttons. Press RIGHT arrow to select next digit and UP arrow to increment digit.

The digit being changed blinks.

Press the ENTER button, at any time, to accept a setting.

Hold MENU, at any time, to exit and return to Run Mode. Changes made to settings prior to pressing ENTER are not saved.

Press the MENU button during Programming Mode to return to the previous menu selections.
Scaling the Meter (SCALE)
The 4-20 mA input can be scaled to display the process in engineering units. To scale the meter, enter the value in milliamps (mA) for input 1, and then the corresponding engineering units display value. Do the same for input 2.

After entering the display 2 value, confirm the new scale by pressing ENTER at the Save menu.

A signal source is not needed to scale the meter; simply program the inputs and corresponding display values.

For instructions on using multipoint scaling, see Level Input Multipoint Linearization (MULTIPT), page 18.

For instructions on how to program numeric values see Setting Numeric Values on page 13.

Minimum Input Span
The minimum input span is the minimum difference between input 1 and input 2 signals required to complete the calibration or scaling of the meter. The minimum span is 0.10 mA.

Scale Error Message (SPN_ERR)
If the minimum span is not maintained, the meter will show a span error (SPN_ERR) and revert to input 2, allowing the appropriate input signals to be applied.

Selecting Inch Fraction Display Mode (FRACTN)
The display may be programmed to display fractions of an in 1/8th or 1/16th increments, or to show no fraction.

For instructions on using multipoint scaling, see Level Input Multipoint Linearization (MULTIPT), page 18.

For instructions on how to program numeric values see Setting Numeric Values on page 13.

Minimum Input Span
The minimum input span is the minimum difference between input 1 and input 2 signals required to complete the calibration or scaling of the meter. The minimum span is 0.10 mA.

Scale Error Message (SPN_ERR)
If the minimum span is not maintained, the meter will show a span error (SPN_ERR) and revert to input 2, allowing the appropriate input signals to be applied.
Configuring the Lower Display (DISPLAY)

The lower display may be configured to display a custom tag (TAG), volume (VOLUME), volume and tag (VOL+TAG), percent of full height (PCT HT), or percent of full height and tag (PCT+TAG) or be blank (OFF).

A custom tag may be up to seven alphanumeric characters programmed for identification (e.g. TANK 3) or for engineering units (e.g. GALLONS).

Volume is a separate, second scale of the input process variable. This is configured in Volume Display Scaling (VOLSCAL) on page 17.

Percent full height shows the percent full of the tank height level indicator programmed in the Scaling the Tank Level Indicator (PERCENT) menu, on page 14.

The tank level indicator (GRAPH) may also be turned on or off from the display menu.

Setting the Tag (TAG)

Any lower display setting that includes a tag will require the tag to be entered.

The fully alphanumeric values for the tag are set using the RIGHT button to select the digit, the UP and RIGHT arrow buttons to select the digit reading, and the ENTER button to confirm and select the next digit.
Advanced Features Menu

To simplify the setup process, functions not needed for most applications are located in the Advanced Features Menu. Access the Advanced Features Menu by pressing ENTER at the ADVANCE menu in the Main Menu defined on page 12.

The Advanced Features Menu is used to select:

1. Open collector output configuration (OUTPUT)
2. Input filter (FILTER)
3. Volume display scale (VOLSCAL)
4. Live signal level display calibration (LVL CAL)
5. Internal Calibration (ICAL)
6. Multipoint linearization for level (MULTIPT)
7. Meter system information display (INFO)

Advanced Features Menu & Display Messages

The following table shows the Advanced features menu functions and messages in the order they appear in the menu.

<table>
<thead>
<tr>
<th>Display</th>
<th>Parameter</th>
<th>Action/Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>OUTPUT</td>
<td>Output</td>
<td>Enter output menu</td>
</tr>
<tr>
<td>OFF</td>
<td>Off</td>
<td>Disable output</td>
</tr>
<tr>
<td>ALARM</td>
<td>Alarm Output</td>
<td>Enter alarm output menu</td>
</tr>
<tr>
<td>LEVEL</td>
<td>Level Alarm</td>
<td>Assign alarm output to level</td>
</tr>
<tr>
<td>SET</td>
<td>Set Point</td>
<td>Set alarm set point</td>
</tr>
<tr>
<td>RESET</td>
<td>Reset Point</td>
<td>Set alarm reset point</td>
</tr>
<tr>
<td>VOLUME</td>
<td>Volume Alarm</td>
<td>Assign alarm output to volume</td>
</tr>
<tr>
<td>FILTER</td>
<td>Filter</td>
<td>Set noise filter</td>
</tr>
<tr>
<td>LO</td>
<td>Filter Low</td>
<td>Set noise filter to low setting</td>
</tr>
<tr>
<td>MEJ</td>
<td>Filter Medium</td>
<td>Set noise filter to medium setting</td>
</tr>
<tr>
<td>HI</td>
<td>Filter High</td>
<td>Set noise filter to high setting</td>
</tr>
<tr>
<td>OFF</td>
<td>Filter Off</td>
<td>Disable noise filter</td>
</tr>
<tr>
<td>VOLSCAL</td>
<td>Volume Scale</td>
<td>Scale the volume display</td>
</tr>
<tr>
<td>NO PTS</td>
<td>Number of Points</td>
<td>Set the number of points for volume scaling</td>
</tr>
<tr>
<td>INPUT 1</td>
<td>Input 1</td>
<td>Set volume input 1 on the level display</td>
</tr>
<tr>
<td>DISPLAY 1</td>
<td>Display 1</td>
<td>Set volume display 1</td>
</tr>
<tr>
<td>INPUT 2</td>
<td>Input 2</td>
<td>Set volume input 2 on the level display</td>
</tr>
<tr>
<td>DISPLAY 2</td>
<td>Display 2</td>
<td>Set volume display 2</td>
</tr>
<tr>
<td>SAVE P</td>
<td>Save</td>
<td>Save entered volume scale parameters</td>
</tr>
<tr>
<td>LVL CAL</td>
<td>Level Calibration</td>
<td>Calibrate the level display</td>
</tr>
<tr>
<td>INPUT 1</td>
<td>Input 1</td>
<td>Calibrate input 1 value</td>
</tr>
<tr>
<td>DISPLAY 1</td>
<td>Display 1</td>
<td>Set display 1 feet and inches</td>
</tr>
<tr>
<td>INPUT 2</td>
<td>Input 2</td>
<td>Calibrate input 2 value</td>
</tr>
<tr>
<td>DISPLAY 2</td>
<td>Display 2</td>
<td>Set display 2 feet and inches</td>
</tr>
<tr>
<td>SAVE P</td>
<td>Save</td>
<td>Save entered calibration parameters</td>
</tr>
<tr>
<td>ICL</td>
<td>Internal Calibration</td>
<td>Enter internal reference calibration</td>
</tr>
<tr>
<td>4mA</td>
<td>4 mA</td>
<td>Calibrate input at 4 mA</td>
</tr>
<tr>
<td>20mA</td>
<td>20 mA</td>
<td>Calibrate input at 20 mA</td>
</tr>
<tr>
<td>ERRSPAN</td>
<td>Error Span</td>
<td>Error with calibration point 1 and 2 span</td>
</tr>
<tr>
<td>MULTIPT</td>
<td>Multipoint</td>
<td>Set level display multipoint linearization</td>
</tr>
<tr>
<td>DISABLE</td>
<td>Disable</td>
<td>Disable multipoint linearization</td>
</tr>
<tr>
<td>ENABLE</td>
<td>Enable</td>
<td>Enable multipoint linearization</td>
</tr>
<tr>
<td>INFO</td>
<td>Meter Information</td>
<td>Show software number and version, or reset to factory defaults</td>
</tr>
<tr>
<td>SOFT</td>
<td>Software</td>
<td>Software number</td>
</tr>
<tr>
<td>VERSION</td>
<td>Software Version</td>
<td>Software version</td>
</tr>
</tbody>
</table>

For instructions on how to program numeric values, see Setting Numeric Values on page 13.
Alarm Output (OUTPUT)

The PD6801 is equipped with an NPN open collector output that may be set up for high or low alarm trip point based on the level display (LEVEL) or the volume scale (VOLUME). The output may be disabled by selecting OFF.

When the alarm is enabled for level and the alarm set point has been reached, the level display will flash, accompanied by the lower display alternating between normal display and ALARM. A tank height indicator segment will flash at the level the alarm is set to while the level indicator is at or above the alarm point.

When the alarm is enabled for volume and the alarm set point has been reached, the lower display will flash, alternating between its normal display and ALARM.

To set a high alarm, program the set point value to be greater than the reset point.

To set a low alarm, program the set point value to be less than the reset point.

To acknowledge an alarm, press the ENTER button once for acknowledge prompt and a second time to confirm. Acknowledging an alarm will turn off the alarm output and stop the display from flashing. The lower display will continue to alternate between its normal display and ALARM until the alarm condition is cleared.

The alarm status will show on the display even if the output is not wired.

Input Signal Filter (FILTER)

The noise filter is available for unusually noisy signals that cause an unstable process variable display. The noise filter averages the input signal over a certain period. The filter level can be set to low (LO), medium (MED), high (HI), or off (OFF). The higher the filter setting, the longer the averaging time and so the longer the display may take to find its final value.

The filter contains a noise filter bypass feature so that while small variations in the signal will be filtered out, large, abrupt changes to the input signal are displayed immediately.

Volume Display Scaling (VOLSCAL)

Volume may be scaled as a function of the feet and inches level display. It may use up to 32-point linearization. The multi-point linearization can be used to linearize the display for non-linear signals such as those from level transmitters used to measure volume in odd-shaped tanks.

To display the volume, select a lower display including the volume display in the Display menu as shown in Configuring the Lower Display (DISPLAY) on page 15.

To scale the volume display, enter the level in feet and inches for input 1, and then the corresponding volume display value. Do the same for input 2. After entering the display 2 value, confirm the new volume scale by pressing ENTER at the Save menu.
Level Input Live Signal Calibration (LVL CAL)
The meter can be calibrated using a current source instead of scaling. This process will override previously programmed scaling of the level display. The use of a calibrated signal source is strongly recommended.

Press and hold the MENU button for 5 seconds to enter the Advanced Features menu. Press the UP arrow button to scroll to the Internal Calibration menu (ICAL) and press ENTER. The meter displays 4 mA. Apply a 4.000 mA signal and press ENTER. The display flashes for a moment while the meter is accepting the signal. After the signal is accepted, the meter displays 20 mA. Apply a 20.000 mA signal and press ENTER. The display flashes for a moment while the meter is accepting the signal.

Calibration Error Message (SPN ERR)
An error message indicates that the calibration process was not successful. After the error message is displayed, the meter will revert to the 4 mA calibration menu. The error message might be caused by inadvertently leaving the signal at the previous level or not maintaining the minimum span. Press the MENU button to cancel the current calibration process if necessary.

Level Input Multipoint Linearization (MULTIPLE)
This menu enables multipoint linearization for scaling and calibrating of the level display. Setting MULTIPLE to ENABLE allows the level display to be scaled or calibrated using up to 32 points. See Scaling the Meter (SCALE) on page 14 and Level Input Live Signal Calibration (LVL CAL) on page 18, to include a Number of Points (NPTS) parameter before entering Input 1.

32-point linearization can be used to linearize the display for non-linear signals.

Internal Calibration (ICAL)
There is no need to recalibrate the meter when first received from the factory. The meter is factory calibrated prior to shipment. The calibration equipment is traceable to NIST standards.

The internal calibration is the meter’s master calibration that makes scaling the meter without a signal source possible. Use of a calibrated signal source is necessary to perform an internal calibration of the meter. Check calibration of the meter at least every 12 months. Incorrect calibration will affect the ability of the meter to properly read, scale, and display the input.

Notes:
The signal source must have a full-scale accuracy of 0.002% or better between 4 and 20 mA in order to maintain the specified accuracy of the meter. Allow the meter to warm up for at least 15 minutes before performing the calibration procedure.

Information (INFO)
The Information menu shows the software identification number and version number. To determine the software version of a meter: Go to the Information menu (INFO) and press ENTER button. Continue pressing ENTER to scroll through the software release number and software version. Following the information display, the meter will exit the Advanced Features menu and return to run mode.
Setting Up the Password (PASSWRD)

The Password menu is used to program a five-digit password to prevent unauthorized changes to the programmed parameter settings. A password protected meter will display LOCKED when the MENU button is pressed.

Locking the Meter

Enter the Password menu and program a five-digit password.

For instructions on how to program numeric values see Setting Numeric Values, page 13.

Record the password for future reference. If appropriate, it may be recorded in the space provided.

<table>
<thead>
<tr>
<th>Model:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Serial Number:</td>
<td></td>
</tr>
<tr>
<td>Password:</td>
<td>__ __ __ __</td>
</tr>
</tbody>
</table>

Making Changes to a Password Protected Meter

If the meter is password protected, the meter will display the message LOCKED when the Menu button is pressed. Press the Enter button while the message is being displayed and enter the correct password to gain access to the menu. After exiting the programming mode, the meter returns to its password protected condition.

Disabling Password Protection

To disable the password protection, access the Password menu and enter the correct password, as shown below.

If the correct five-digit password is entered, the meter displays the message UNLOCKD (unlocked) and the protection is disabled until a new password is programmed.

If the password entered is incorrect, the meter displays the message LOCKED and returns to Run Mode. To try again, repeat the above procedure.

Did you forget the password?

The password may be disabled by entering a master password. If you are authorized to make changes, enter the master password 50865 to unlock the meter.
## Operation

### Front Panel Buttons Operation

<table>
<thead>
<tr>
<th>Button Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MENU</td>
<td>Press to Enter or Exit Programming Mode</td>
</tr>
<tr>
<td>RESET</td>
<td>Used to Reset Maximum and Minimum Values</td>
</tr>
<tr>
<td>DISPLAY</td>
<td>Press to Cycle Displaying Maximum Value, Minimum Value, and Input Current in mA</td>
</tr>
<tr>
<td>ENTER</td>
<td>Press to Resume Run Mode in Lower Display</td>
</tr>
<tr>
<td></td>
<td>Press to Acknowledge Alarm (if Enabled)</td>
</tr>
</tbody>
</table>

### Display Maximum, Minimum, and Input Current

The maximum and minimum values and the measured input loop current may be displayed temporarily on the lower display. To display these values, press the DISPLAY button. The meter will display the word **MAXIMUM** on the lower display and the maximum value reached (since the last maximum reset) on the upper display. Press the DISPLAY button again and the meter will display the word **MINIMUM** on the lower display and the minimum value reached on the upper display. Pressing the RESET button while either of these values is displayed will reset that value to the current display value. Press the DISPLAY button a third time and the meter will display **LOOP MA** on the lower display, followed by the measured input current in milliamps (mA). The current display will remain for 10 seconds and then the lower display will return to normal run mode as programmed in Configuring the Lower Display (DISPLAY) on page 15. Press the DISPLAY button a fourth time to return to the normal operation. The meter will display **RESUME** followed by the run mode lower display.

### Reset Meter to Factory Defaults

When the parameters have been changed in a way that is difficult to determine what’s happening, it might be better to start the setup process from the factory defaults.

Instructions to load factory defaults:

Enter the Advanced features menu.

Press and hold RESET button when INFO is shown. For information on navigating to the Information menu, refer to Advanced Features Menu (ADVANCE) on page 16.

Press ENTER when DFALT prompt is flashing.

Note: If ENTER is not pressed within three seconds, the prompt will stop flashing return to run mode.
Factory Defaults & User Settings

The following table shows the factory setting for most of the programmable parameters on the meter. Next to the factory setting, the user may record the new setting for the particular application.

Model: _____________________________________
S/N: _______________________________________
Date: ______________________________________

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Display</th>
<th>Default Setting</th>
<th>User Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Setup</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input 1</td>
<td>INPUT 1</td>
<td>4.000 mA</td>
<td></td>
</tr>
<tr>
<td>Display 1</td>
<td>DSPLY 1</td>
<td>00° 00&quot; 1/16</td>
<td></td>
</tr>
<tr>
<td>Input 2</td>
<td>INPUT 2</td>
<td>20.00 mA</td>
<td></td>
</tr>
<tr>
<td>Display 2</td>
<td>DSPLY 2</td>
<td>100° 00&quot; 1/16</td>
<td></td>
</tr>
<tr>
<td>Fraction</td>
<td>FRACTN</td>
<td>1/16th</td>
<td></td>
</tr>
<tr>
<td>Tank Indicator 0%</td>
<td>0 PCT</td>
<td>0° 00&quot; 1/16</td>
<td></td>
</tr>
<tr>
<td>Tank Indicator 100%</td>
<td>100 PCT</td>
<td>100° 00&quot; 1/16</td>
<td></td>
</tr>
<tr>
<td>Display</td>
<td>DISPLAY</td>
<td>Tag</td>
<td></td>
</tr>
<tr>
<td>Bar Graph</td>
<td>GRAPH</td>
<td>On</td>
<td></td>
</tr>
<tr>
<td>Tag</td>
<td>TAG</td>
<td>TANK 1</td>
<td></td>
</tr>
<tr>
<td>Advanced Features</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output</td>
<td>OUTPUT</td>
<td>Off</td>
<td></td>
</tr>
<tr>
<td>Filter</td>
<td>FILTER</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Volume Scale</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Points</td>
<td>NO PTS</td>
<td>02</td>
<td></td>
</tr>
<tr>
<td>Volume Scale Input 1</td>
<td>INPUT 1</td>
<td>00° 00&quot; 1/16</td>
<td></td>
</tr>
<tr>
<td>Volume Scale Display 1</td>
<td>DSPLY 1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Volume Scale Input 2</td>
<td>INPUT 2</td>
<td>100° 00&quot; 1/16</td>
<td></td>
</tr>
<tr>
<td>Volume Scale Display 2</td>
<td>DSPLY 2</td>
<td>100,000</td>
<td></td>
</tr>
<tr>
<td>Multipoint</td>
<td>MULTIPT</td>
<td>Disable</td>
<td></td>
</tr>
<tr>
<td>Password</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Password</td>
<td>PASSWRD</td>
<td>00000</td>
<td>(unlocked)</td>
</tr>
</tbody>
</table>

Troubleshooting

Due to the many features and functions of the meter, it's possible that the setup of the meter does not agree with what an operator expects to see. If the meter is not working as expected, refer to the Diagnostics menu and consult the recommendations described below.

Troubleshooting Tips

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Check/Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>No display or faint display</td>
<td>Check input signal connections. Perform hard reset by shorting S+ and S- terminals.</td>
</tr>
<tr>
<td>Level display unsteady</td>
<td>Increase filter setting in Advanced menu.</td>
</tr>
<tr>
<td>Meter displays error message during calibration (CPDSP)</td>
<td>Check signal connections. Verify minimum input span requirements</td>
</tr>
<tr>
<td>Level display flashing 699 ft 11 in.</td>
<td>Check input signal and scaling within range of 699 ft 11 in.</td>
</tr>
<tr>
<td>Meter flashes 9999999 or -9999999</td>
<td>Check level display within volume scale range of 9999999 and -999999.</td>
</tr>
<tr>
<td>Display response is too slow</td>
<td>Check filter setting to see if it can be lowered to LO or OFF.</td>
</tr>
<tr>
<td>If the display locks up or the meter does not respond at all</td>
<td>Perform hard reset by shorting S+ and S- terminals.</td>
</tr>
<tr>
<td>Backlight does not appear.</td>
<td>Backlight may not be noticeable under good lighting conditions. Check connections are as shown in Figure 5. Connections with Loop-Powered Backlight or Figure 6. Connections with Externally-Powered Backlight on page 9.</td>
</tr>
<tr>
<td>SafeTouch buttons do not respond</td>
<td>Mechanical buttons may have been pushed. The SafeTouch buttons will be re-enabled automatically 60 seconds after the last button push. If slide switch on connector board is in Lock position, switch to Unlock. Sunlight can interfere with the sensors. It is recommended to shield the window from sunlight while operating the buttons by standing so as to block direct sunlight.</td>
</tr>
<tr>
<td>Other symptoms not described above</td>
<td>Call Technical Support for assistance.</td>
</tr>
</tbody>
</table>
Quick User Interface Reference

<table>
<thead>
<tr>
<th>Pushbutton</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>MENU</td>
<td>Go to programming mode or leave programming. Hold for 5 seconds to enter Advanced Features menu directly.</td>
</tr>
<tr>
<td>RIGHT Arrow</td>
<td>Move to next digit. Go to previous menu or alphanumeric character selection. Reset max or min while displayed.</td>
</tr>
<tr>
<td>UP Arrow</td>
<td>Move to next selection or increment digit. Cycle through maximum, minimum, and mA display mode.</td>
</tr>
<tr>
<td>ENTER</td>
<td>Accept selection/value and move to next selection. Acknowledge alarms.</td>
</tr>
</tbody>
</table>

To enter the Advanced Features Menu, hold the Menu button for 5 seconds.

Max/Min Mode
While in Run Mode, pressing Up Arrow will initiate MAX/MIN Mode. Up Arrow toggles between MAX & MIN displays, and Right Arrow resets the MAX/MIN to the current value. Press Menu or wait 10 seconds to return to Run Mode. Pressing Enter/Ack will disable the 10 second timeout and continuously display Max or Min.

Main Menu

Operation Modes

*Access by holding Right/Reset for 3 seconds
EU Declaration of Conformity

Issued in accordance with ISO/IEC 17050-1:2004 and ATEX Directive 2014/34/EU.

We, Precision Digital Corporation
233 South Street
Hopkinton, MA 01748 USA

as the manufacturer, declare under our sole responsibility that the product(s),

Model PD6801 Series Loop Powered Feet & Inches Meter

to which this declaration relates, is in conformity with the European Union Directives shown below:

2014/35/EU Low Voltage Directive
2014/34/EU ATEX Directive
2014/30/EU EMC Directive
2011/65/EU RoHS Directive

This conformity is based on compliance with the application of harmonized or applicable technical standards and, when applicable or required, a European Union notified body certification.

Standards:
EN 55022:2007  EN 61000-6-2:2005
EN 60079-0:2009  EN 61000-6-4:2004
EN 60079-1:2007  EN 61010-1:2001
EN 60079-31:2009  EN 61326:2006


EC Type Examination Certificate: Sira 10ATEX1116X

Product Markings:  Ex IIC T6 Gb
Ex tb IIC T85°C Db IP68
Tamb = -40°C to +75°C

ATEX Notified Body for EC Type Examination Certificate: CSA Group Netherlands B.V., NB 2813
Utrechtseweg 310
6812 AR, Arnhem, Netherlands

ATEX Quality Assurance Notification No.: SIRA 10 ATEX M462

ATEX Notified Body for Quality Assurance: CSA Group Netherlands B.V., NB 2813
Utrechtseweg 310
6812 AR, Arnhem, Netherlands

Signed for and on behalf of Precision Digital Corporation:

Jeffrey Peters
President
10/15/2019

Name: Jeffrey Peters
Company: Precision Digital Corporation
Title: President
Date: 10/15/2019

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For the latest version of this manual please visit
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