

LOW COST 3 1/2 DIGIT LOOP-POWERED METERS

MODEL PD660 NEMA 4X

- 4-20 mA Input
- 3 1/2 Digit Display
- Easy Calibration and Installation
- Loop-Powered Backlighting Option
- Operates from -40 to 80°C

SPECIFICATIONS

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

INPUT: 4-20 mA @ 24 VDC maximum.

DISPLAY: 0.5" (12.7mm) high LCD, 3 1/2 digit; 1999, user selectable decimal point.

CALIBRATION: 2 Step; non-interacting zero and span

CALIBRATION RANGE: 4 mA input: -500 to +500;

20 mA input: between 20 to 2000 above 4 mA display.

MAXIMUM VOLTAGE DROP: 1.5 VDC @ 20 mA;

3.5 VDC @ 20 mA with backlighting option.

ACCURACY: ±0.1% of span, ±1 count.

CONVERSION RATE: 2.5 conversions/second.

CONNECTIONS: Removable screw terminal block.

OPERATING TEMPERATURE RANGE: -40 to 80°C.

APPROVAL: The PD661-N-EX and PD661-B-EX are FM Approved and CSA Certified as explosion-proof for Class I, Division 1, Groups B, C, and D; dust-ignition proof for Class II, Division 1, Groups E, F, and G; and Class III hazardous (classified) locations. LCIE (CENELEC) certified as flame-proof, EEx d IIC T6.

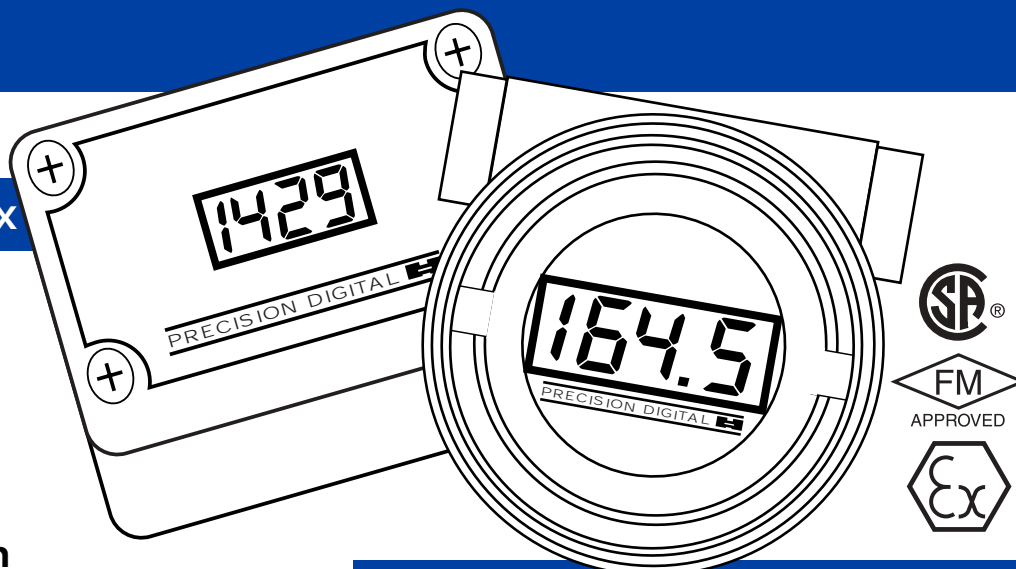
PD660 ENCLOSURE: High impact-resistant ABS plastic body, color: gray, clear ABS plastic cover with blue face-plate; NEMA 4X, IP 67; 1/2" conduit hole provided at base. Hole may be provided on back for panel mounting applications, call factory for details.

PD661 ENCLOSURE: Explosion-proof, cast aluminum, corrosion resistant, color: "safety blue" polyester powder coating. FM Approved and CSA Certified; NEMA 4X, 7 & 9; Class I, Division 1, Groups B, C, & D and Class II, Groups E, F, & G, Class III hazardous outdoor (Type 4X) locations. CENELEC: EEx d IIC + H2 IP 66. Two 1/2" NPT holes provided.

LOOP-POWERED BACKLIGHTING OPTION: Factory installed only. Powered directly off the 4-20 mA loop, no batteries required. The display brightness will increase as the input signal current increases.

WARRANTY: 1 year parts and labor.

EXTENDED WARRANTY: May be extended an additional 12 months by returning the Product Registration Form within 2 months from date of purchase. Go to www.predig.com for online registration.



MODEL PD661 EXPLOSION-PROOF

ORDERING INFORMATION

Model	Description
PD660-N	NEMA 4X Loop-Powered Meter
PD660-B	NEMA 4X Loop-Powered Meter with Loop-Powered Backlighting
PD661-N	Explosion-Proof Loop-Powered Meter
PD661-B	Explosion-Proof Loop-Powered Meter with Loop-Powered Backlighting
PD661-N-EX	FM, CSA, & CENELEC Explosion-Proof Meter
PD661-B-EX	FM, CSA, & CENELEC Explosion-Proof Meter with Loop-Powered Backlighting
PDA6604	Panel Mounting Kit for PD660 (Panel Mounting Kit does not provide NEMA 4X seal to the panel)
PDA6845	2" Pipe Mounting Kit for PD660

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LOW COST 3¹/₂ DIGIT LOOP-POWERED METERS

SETUP

The only tools needed for calibration are a calibrated current source and a screwdriver.

PD660 Installation

Installation of the PD660 involves removing the display board and screw terminal connector. It may also be necessary to remove the input signal board depending on type of conduit hubs used.

PD661 Installation

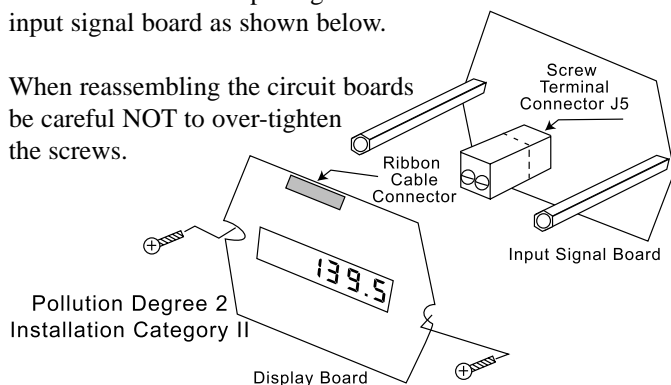
The PD661 has no provisions for wall mounting. Installation of the unit is accomplished by using the two 1/2" NPT conduit holes provided with 1/2" NPT fittings.

Disassembly

The removable screw terminal connector is located on the lower circuit board. To access these input terminals it is necessary to remove the display board from the input signal board. This is done by first removing the enclosure cover. Next, loosen the 2 screws that hold the display board to the standoffs. Slide the display board so the right side comes off the standoff first, proceed to remove the display board from both standoffs. Be careful to avoid contact of the display with rough surfaces. The display board may be disconnected from the ribbon cable simply by pulling up on the ribbon cable connector located above the display.

Connect a 4-20 mA input signal to terminal J5 located on the input signal board as shown below.

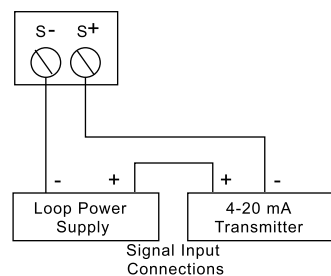
When reassembling the circuit boards be careful NOT to over-tighten the screws.



CAUTION-DISCONNECT FROM SUPPLY BEFORE OPENING. KEEP COVER TIGHT WHILE CIRCUITS ARE ALIVE. CONDUIT SEALS MUST BE INSTALLED WITHIN 18" OF THE ENCLOSURE.
ATTENTION-OUVRIR LE CIRCUIT AVANT D'ENLEVER LE COUVERCLE GARDER LE COUVERCLE BIEN FERME TANT QUE LES CIRCUITS SONT SOUS TENSION. UN SCELEMENT DOIT ETRE INSTALLE A MOINS DE 450 mm DU BOITIER.

Connections

Screw Terminal Connector



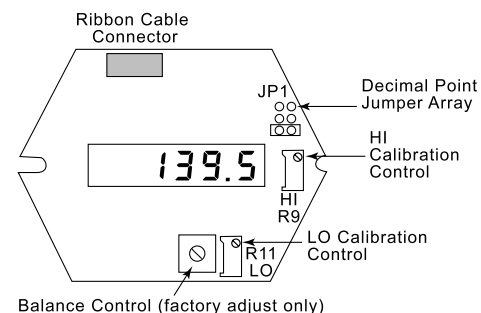
Decimal Point Selection

The decimal point jumper array (JP1) is located in the upper right corner of the display board. Place a jumper across the bottom pins for a display of 199.9, across the middle pins for a display of 19.99, and across the top pins for a display of 1.999.

Calibration

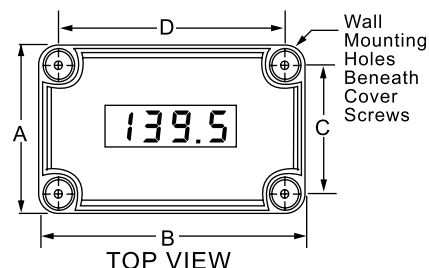
The LO calibration control (R11) is located below the display and the HI calibration control (R9) is located to the right of the display.

Apply a 4 mA input signal and adjust the LO control to display the desired reading. Next, apply a signal between 16 and 20 mA and adjust the HI control to display the desired reading. Complete the calibration procedure by making any minor adjustments to the LO and HI controls.

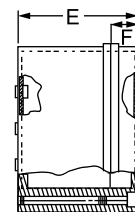


DIMENSIONS

PD660 Dimensions are in inches (mm)



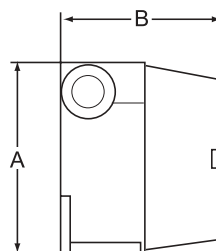
A: 3.15" (80 mm) C: 2.36" (60 mm)
B: 4.33" (110 mm) D: 3.54" (90 mm)
Weight: 12 oz (340 g)



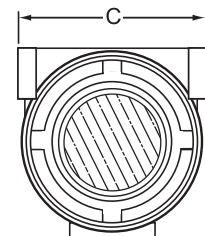
END VIEW

E: 2.56" (65 mm)
F: 0.79" (20 mm)

PD661



A: 4.75" (121 mm) B: 3.75" (95 mm) C: 4.5" (114 mm)
Weight: 4 lbs (1.8 kg) FM Approved and CSA certified enclosure



LIM660-661 Rev D 02/02