

# 4½ DIGIT LOOP-POWERED METERS

## Model PD675 NEMA 4X



- **4½ Digits 0.7" (17.8 mm) LCD, 19,999**
- **Operates from -20 to 65°C**
- **Easy to Calibrate**

### SPECIFICATIONS

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

#### General

**Input:** 4-20 mA @ 24 VDC maximum  
**Accuracy:** ±0.05% FS ±2 counts  
**Decimal Point:** User selectable  
**Calibration Range:** 4 mA input: -5000 to +5000;  
20 mA input: between 200 and 20000 above 4 mA input  
**Maximum Voltage Drop:** 5.2 VDC @ 20 mA  
**Display Update Rate:** 2.5/second  
**Operating Temperature:** -20 to 65°C  
**Storage Temperature:** -40 to 80°C  
**Relative Humidity:** 0 to 90% non-condensing  
**Connections:** Removable screw terminals accept 12 to 22 AWG  
**Warranty:** 2 years parts & labor

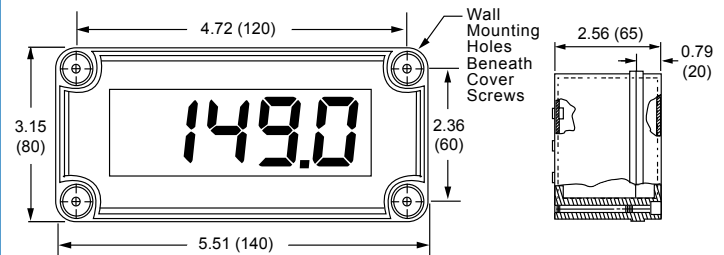
#### PD675

**Display:** 0.7" (17.8 mm) LCD, 4½ digits; 19999  
**Approvals:** FM Approved & CSA Certified as non-incendive for Class I, Division 2, Groups A, B, C, & D; suitable for Class II, Division 2, Groups F & G; suitable for Class III, Division 2, indoor and outdoor, hazardous (classified) NEMA 4X locations.  
**Enclosure:** Impact-resistant polycarbonate body, color: gray; clear polycarbonate cover; NEMA 4X, IP67. ½" conduit hole provided at base.  
**Weight:** 12 oz (340 g)

### DIMENSIONS

Units: Inch (mm)

#### PD675



### ORDERING INFORMATION

PD675 • 4½ Digits Loop-Powered Meter	
Model	Description
PD675-N	NEMA 4X Loop-Powered Meter

Accessories	
Model	Description
PDA6844	Panel Mounting Kit for PD675 (PDA6844 does not provide NEMA 4X seal to the panel)
PDA6845	2" Pipe Mounting Kit
PDA6845-SS	2" Pipe Mounting Kit SS

**WARNING:** If any of the following operations are performed in hazardous areas, all appropriate hazardous area procedures must be followed.

**WARNING:** Disconnect from supply before opening.

**WARNING:** Calibration of the Loop-Powered Display should be performed in a non-hazardous area prior to installing it in its enclosure.

**CAUTION:** Care should be taken to avoid static electricity damaging the electronic circuitry.

## SETUP

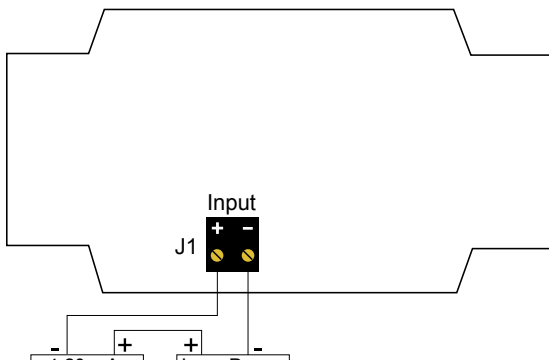
The only tools needed for calibration are a calibrated current source, a flat head screwdriver & a phillips head screwdriver. Please note that the meter must be disassembled in order to perform the setup functions.

## Disassembly

The calibration controls are located behind the display faceplate. To access these controls, you must first remove the enclosure cover and faceplate by doing the following: Loosen the four screws on the enclosure cover and remove. Unscrew the two fasteners that hold the faceplate, then remove.

## Connections

Field connections are made to the screw terminals located on the Signal Input Board. To access these screw terminals it is necessary to remove the Display Board from the Signal Input Board. First, disconnect the ribbon cable connector from the Display Board. Next, remove the two screws located to the left and right of the LCD that hold the Display Board in place. Finally, remove the Display Board carefully to avoid contact with any rough surfaces.



**Figure 2. Signal Input Connections**

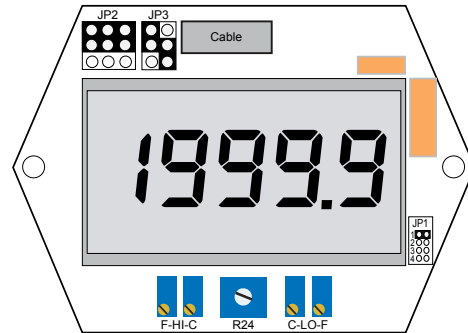
## Calibration Controls

Calibration of these meters is a two-step process involving four controls. These controls are located on the Display Board. The LO controls are on the right and the HI controls on the left. The pre-configured jumper array JP2 and JP3 are also located on the Display Board.

## Calibration Procedure

Connect the 4-20 mA input signal. Apply 4 mA to the input and adjust the coarse and fine LO controls for the desired reading. Next apply a signal between 16 and 20 mA and adjust the coarse and fine HI controls for the desired reading. Complete the calibration by making any minor adjustments to the LO and HI displays.

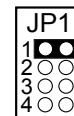
## Jumper Positions



**Figure 3. Display Board**  
Balance Potentiometer (R24) is preset at the factory

## Decimal Point Selection

Decimal point selection is accomplished using JP1 located behind the faceplate to the right of the display. Leave jumper on one pin only for a display of 19999 (default), place the jumper over both pins of #1 for a display of 1999.9, #2 for 199.99, #3 for 19.999, #4 for 1.9999



**Your Local Distributor is:**

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