

## Tek-LCD 7805B

*Explosion-Proof Large Display Loop-Powered Indicator*



# Quick Start Guide

## 1. Before You Begin

This guide provides basic information to assist you in quickly getting started. Go to our website to download the full User Guide for detailed installation and other information.



Read complete instructions prior to installation and operation of the Indicator.



Failure to follow installation guidelines could result in death or serious injury.



Make sure only qualified personnel perform the installation.

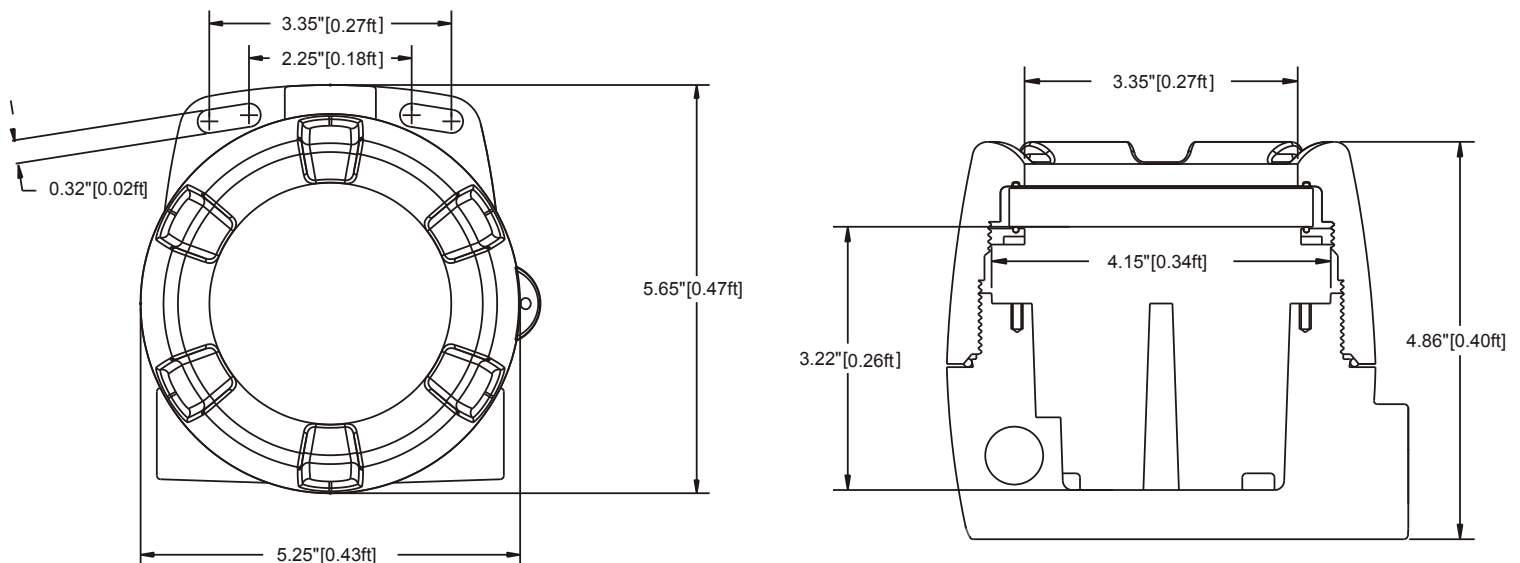


Risk of electric shock or personal injury.

## 2. Unpack

Tek-LCD 7805B Explosion-Proof Large Display Loop-Powered Indicator

## 3. Dimensional View



## 4. Mounting

The Tek-LCD 7805B 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.



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

## 5. Power Connections

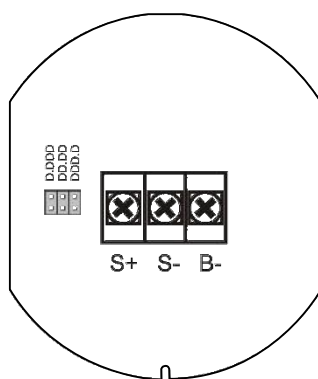


Fig. 1 Connector Board

### Connections & Wiring Diagrams

Signal connections are made to a three-terminal connector mounted on the rear of the display module. The enclosure also provides one internal and one external earth grounding screw. The 4-20 mA input with no backlight has a maximum voltage drop of 1 V and is wired as shown in Figure 2. The loop-powered backlight configuration requires a total maximum voltage drop of 4 V. The backlight option is recommended for dim lighting conditions and is enabled when wired as shown in Figure 3.

# Quick Start Guide

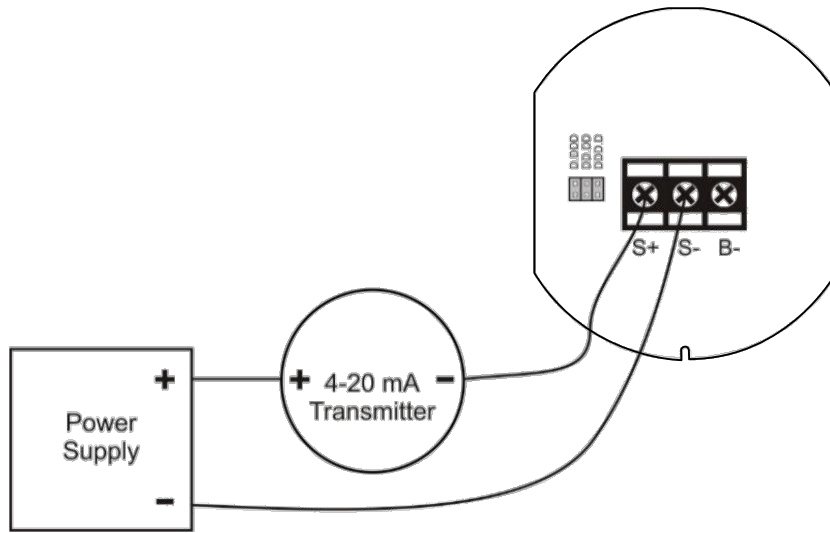


Fig. 2 7805B Input Connections without Backlight

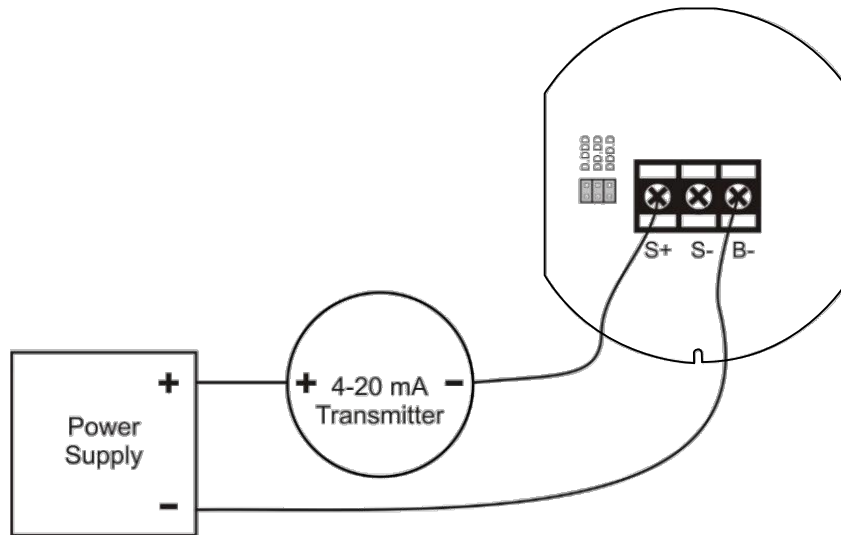
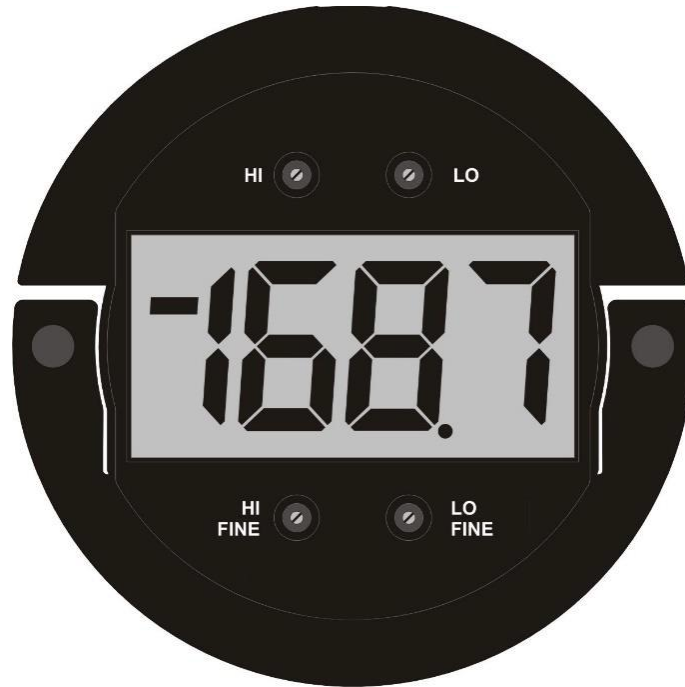


Fig. 3 Input Connections with Loop-Powered Backlight

**6. Display and Buttons**



Control	Description
LO	4 mA display adjust.
LO FINE	4 mA precision display adjust.
HI	20 mA display adjust.
HI FINE	20 mA precision display adjust.

# Quick Start Guide

## 7. Setting Up The Meter

### Calibrating the Meter

The meter is provided factory calibrated to display -50.0 at 4 mA and 150.0 at 20 mA. HI and LO coarse and fine controls are labeled on the front of the display. Use the HI and LO controls for large range changes during calibration and the HI FINE and LO FINE controls for precision changes.

Apply a 4 mA signal and adjust the LO controls to display the desired reading. Apply a signal between 16 and 20 mA and adjust the HI controls to display the desired reading. Complete the calibration procedure by making minor adjustments to the LO and HI controls as necessary.

### Minimum & Maximum Input Span

The meter is provided factory calibrated to display -50.0 at 4 mA and 150.0 at 20 mA. HI and LO coarse and fine controls are labeled on the front of the display. Use the HI and LO controls for large range changes during calibration and the HI FINE and LO FINE controls for precision changes.

Apply a 4 mA signal and adjust the LO controls to display the desired reading. Apply a signal between 16 and 20 mA and adjust the HI controls to display the desired reading. Complete the calibration procedure by making minor adjustments to the LO and HI controls as necessary.

### Setting the Decimal Point

Decimal point may be set using a three position jumper on the rear of the display module. To access the connectors, unscrew the two captive screws that fasten the display module. Remove the display module and place the jumper on the desired pins as indicated on the board for decimal point locations of D.DDD, DD.DD, DDD.D, or remove it if no decimal point is desired.

### 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.

## 8. Troubleshooting

The rugged design and the user-friendly interface of the meter should make it unusual for the installer or operator to refer to this section of the manual. If the meter is not working as expected, refer to the recommendations below.

### Troubleshooting Tips

Symptom	Check/Action
No display	Check input signal connections.
Rate display unsteady during calibration	Adjust LO FINE or HI FINE controls to fine-tune the display.
Meter displays 1 on the left most digit location	Check signal level is not over range. Dial down the HI control and re-calibrate at 20 mA.
Display is faded	Check input signal is not under 1 mA.
If the display locks up or the meter does not respond at all	Perform hard reset by shorting S+ and S- terminals.
Backlight does not appear	Verify backlight is installed. Check signal connections are as shown in Figure 3.
Other symptoms not described above	Call Technical Support for assistance.

## 8. Ordering Information

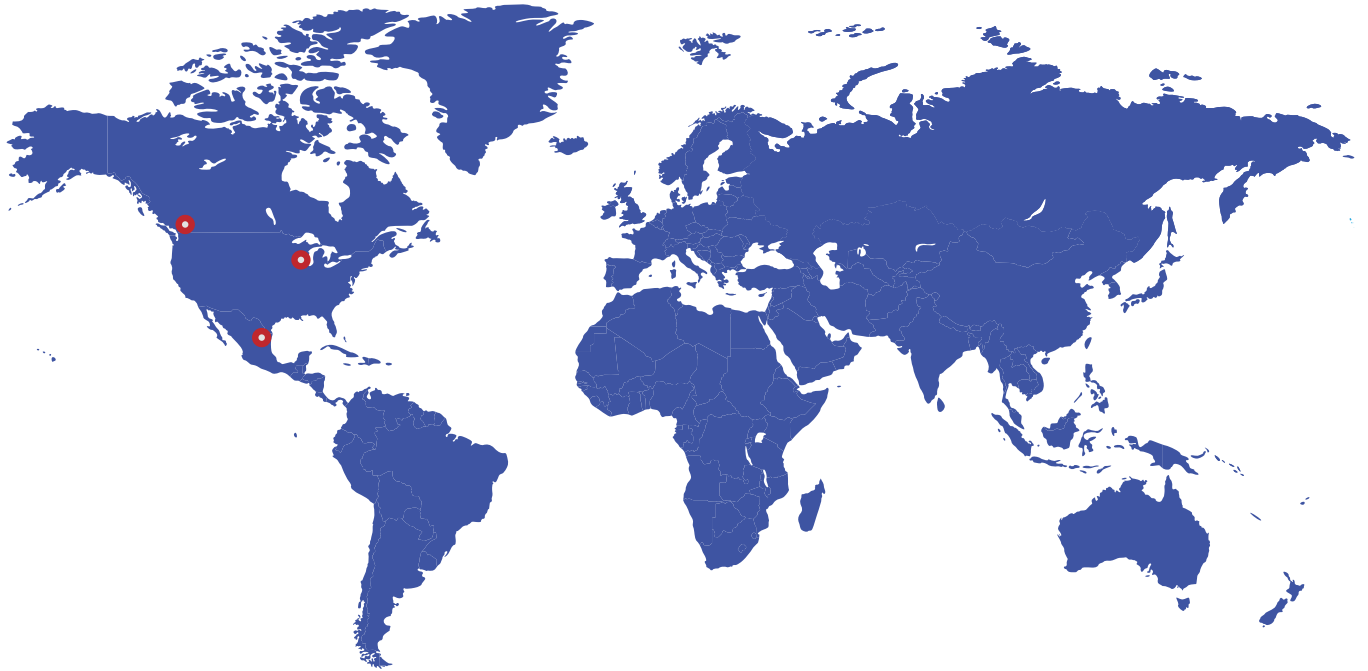
Model Number	Reorder Number	Description
PD6870-0L0-TK	Tek-LCD 7805B-0L0	Tek-LCD 7805B-0L0

### Accessories

Model Number	Reorder Number	Description
PDA0002-TK	Tek-LCD 7800B-002	3/4" M-NPT to 1/2" F-NPT Approved Reducer
PDA6846-TK	Tek-LCD 7800A-6846	Steel Pipe Mounting Kit
PDA6846-SS-TK	Tek-LCD 7800A-6846SS	Stainless Steel Pipe Mounting Kit



Technology Solutions



796 Tek Drive  
Crystal Lake, IL 60014  
USA

Tel: +1 847 857 6076, +1 847 655 7428

Fax: +1 847 655 6147

Email: [tektrol@tek-trol.com](mailto:tektrol@tek-trol.com)

[www.tek-trol.com](http://www.tek-trol.com)

**Tek-LCD 7805B**