

Installation and Maintenance Instructions

LPS Series EASY CAL

Mounting

The unit can be panel mounted in a 140mm (5.5”) x 68mm (2.67”) rectangular cutout. The retaining hardware should be installed after placement of the unit into the panel cutout. The two Phillips lead screws should be tightened to secure the unit in the panel. Maximum panel thickness is 12mm (9.5”) inches. Alternate mounting is to use the option (M) mounting plate and secure to a vertical or horizontal flat surface. A 6 x 6 Inch area is required for surface mounting. Appropriate Hardware (screws) shall be user selected based upon the surface material.

Pressure Connections.

Front and Rear panel barbed tube fittings are provided that will accept 0.170” ID flexible Tubing. The calibration ‘Key’ is used to select the active pressure port for the LPS instrument. Without the Key, the rear ports are selected. Once inserted, the Key is rotate 90 degrees to the right to enable the front pressure ports.

Electrical Connections.

The electrical interface consists of a rear panel mounted 9 pin D connector. Power, Alarm and 4-20 mA loop connections are as follows:

- 1-2 12-24 Vac or Vdc, Pin 1 positive for DC
- 3-4 Pin 3 Positive input for the 4-20 mA Loop, Pin 4 return.
- 5-6 Form A, Isolated Relay contacts, for ‘HI’ alarm output.
- 7-8 Form A, Isolated Relay contacts, for ‘LOW’ alarm output.
- 9 Chassis ground, used Electrical Noise Immunity.

The 4-20 mA current loop is always active on the front panel. Appropriate DC ampere Meter should be used for calibration purposes.

Time Delay.

The Alarm Relay time response (delay) has been factory set at 10 second. 1, 20 and 30 seconds can be selected at time of order placement.

Process Alarm Limit Settings.

To set the alarm limits, push the **LOW** (or **HIGH**) front panel button. The display will indicate the set point, which can be changed with a small Phillips head screwdriver in the low (or high) alarm adjacent access hole. To exit the set mode, push the **LOW** (or **HIGH**) button the second time. If this is not done, the display automatically reverts to the process measurement within one minute. The **LOW ALARM** and **HIGH ALARM** adjustment potentiometers are 15 turn devices with idle clutches at the end of travel at which point a slight click can be observed. Limits of adjustment are +/- **95% of Full Scale**.

Zero Adjustment.

After power has been applied for at least 30 minutes, the zero reading should be verified and adjusted if required. The center ZERO adjustment potentiometer is a $\frac{3}{4}$ turn device and has a +/- 10% of range adjustment with a solid stop at the end of travel. Do not exceed 5 in-oz of torque on the part as it may be damaged. To verify the unit zero reading, use the ‘KEY’, insert and rotate 90 degrees to the right, do not apply pressure to the front pressure ports.

Span Adjustment.

For periodic field calibration “Verification” a portable pressure calibrator may be used. Pressure may be applied to the front panel pressure ports, inserting the KEY and rotating 90 degrees activates the calibration process. The front panel pin Jacks should be connected to the calibrator’s current monitor.

If required, the “SPAN” calibration potentiometer, may accessed through the 1/8 inch Hole adjacent to the LOW alarm set panel button. An appropriate small Phillips screwdriver should used, insertion depth is <math>< 1/2</math> inch.

Analog Output.

The 4-20 mA output is current sinking. An external 12 to 30 Vdc loop power should be connected to terminal 3 (positive) and 4 of the rear connector. Maximum loop resistance is 300 ohm for 12 Vdc and increases to 1200 ohms for 30 Vdc.

The loop current may be monitored via the front panel **pin Jacks**, using an appropriate current meter.

