

MODEL 192 PDI-TN

Clean Room Pressurization Monitor, 4-20 mA Transmitter and Control



Model 192 PDI-TN

The Model 192PDI-TN is the result of our experience in manufacturing pressurization monitors, dating back to 1947 when we supplied GE Hanford Atomic Plant with our Model 120 Electronic Low Differential Pressure Indicator and Control to prevent deadly hydrogen fluoride from escaping from an area used in manufacturing atomic bombs. The Model 192PDI-TN can be installed in the wall and will withstand mild liquid cleaning. It has a stainless steel panel with a waterproof high audio output alarm. A threaded disc is supplied with a rubber gasket for the reference pressure opening, which when reversed should prevent cleaning fluid from entering the monitor. It has a pressure/vacuum range of 0-0.5" water column with a resolution of 0.001" water column.

The Red LED labeled "Pressure Alarm" will illuminate if the vacuum or pressure being monitored is below the set point (reference pressure or vacuum), and the audible alarm will generate a loud sound.

If vacuum or pressure being monitored is above the set point, the Green LED marked "Pressure Normal" will illuminate. A switch marked "Audible Alarm Silence" on the monitor panel will shut off the audible alarm, which will be reactivated when normal vacuum or pressure is restored.

The digital display indicates the differential pressure or vacuum, having a range of 0-0.5" water column, with a resolution of 0.001" water column.

The "Timer Adjustment" is adjustable and prevents activating the audible alarm by momentary door openings.

There is a second switch on the monitor panel marked "Set Point Display" which will cause the differential pressure or vacuum indicator to display the set reference pressure or vacuum as long as it is activated.

The "Zero Adjustment" normally does not require adjustment. To determine if it needs readjustment please do the following:

1. Remove pipe connection on front of monitor panel. When this is done there should be no difference between the reference pressure and the open connection that is normally connected to the clean room.
2. Panel must be vertical and fastened in place.
3. Turn the "Zero Adjustment" very slowly until "0.000" is displayed.
4. Reconnect pipe connection to the clean room. The "Set Point Adjustment" is adjusted while the switch marked "Set Point Display" is activated. The "Digital Display" will read the set point pressure or vacuum as long as the switch is activated.

The AC ground must be connected to screw on terminal board labeled "Gnd."



The Henry G. Dietz Co. Inc.
14-26 28th Avenue
Long Island City, New York 11102
For technical help call 1-888-866-5641

Please Note: The last digit indicates a pressure of 1/2 of 1,000 ounce per square inch. The last digit will change with extremely small changes in temperature and will fluctuate frequently. Units are best checked when the last digit is displayed. After zeroing is accomplished the last digit can be blocked out to read only in one hundredth of an inch by using the metal piece furnished with two-sided Scotch Tape to cover the one thousandth reading.

Note: Zeroing and set point adjustments must be done when installation is completed and monitor panel screwed in place on a vertical surface.

PHYSICAL DATA:

Media: Air or inert gas.

Accuracy (@ 20 degrees C.): +/-0.5% of full scale.

Display: 4 Digit, 0.57" high, red and green LEDs.

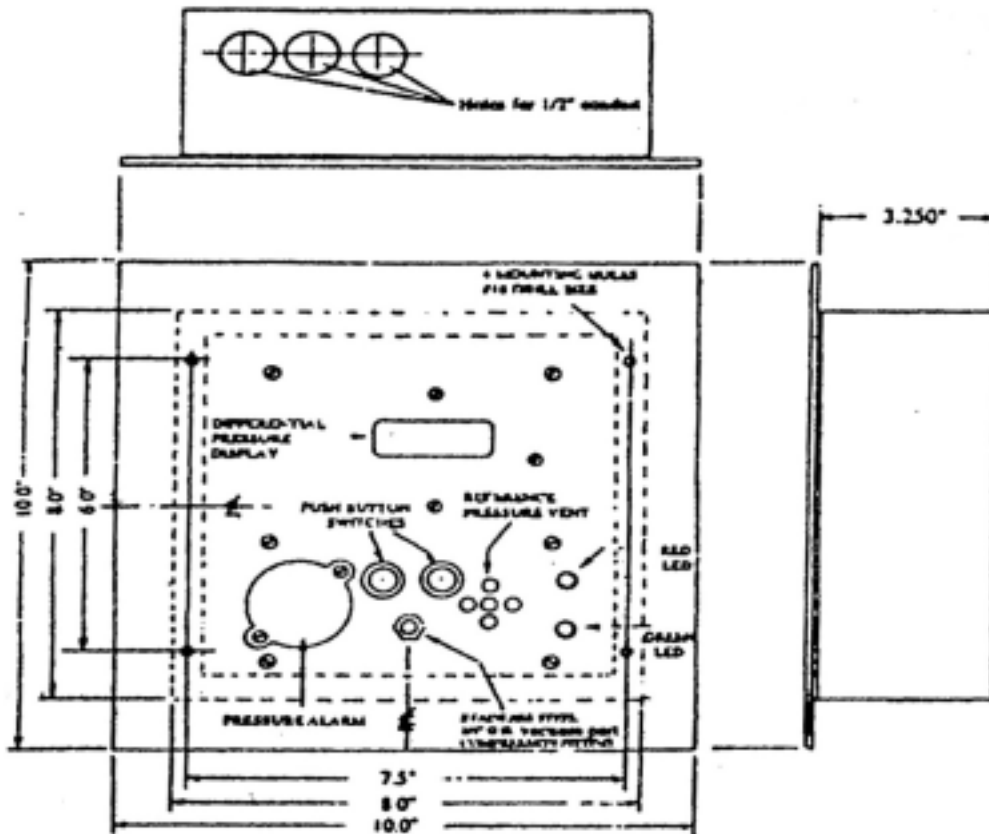
Supply voltage: 24 V AC, 60 Hz., 1 Amp.

Pressure range: 0-0.5" water column, with resolution of 0.001" water column.

Repeatability & hysteresis; Typically +/-0.5%.

Compression fitting to clean room: Compression fitting for 1/4" outside tubing.

Output Signal: 4-20 mA DC.

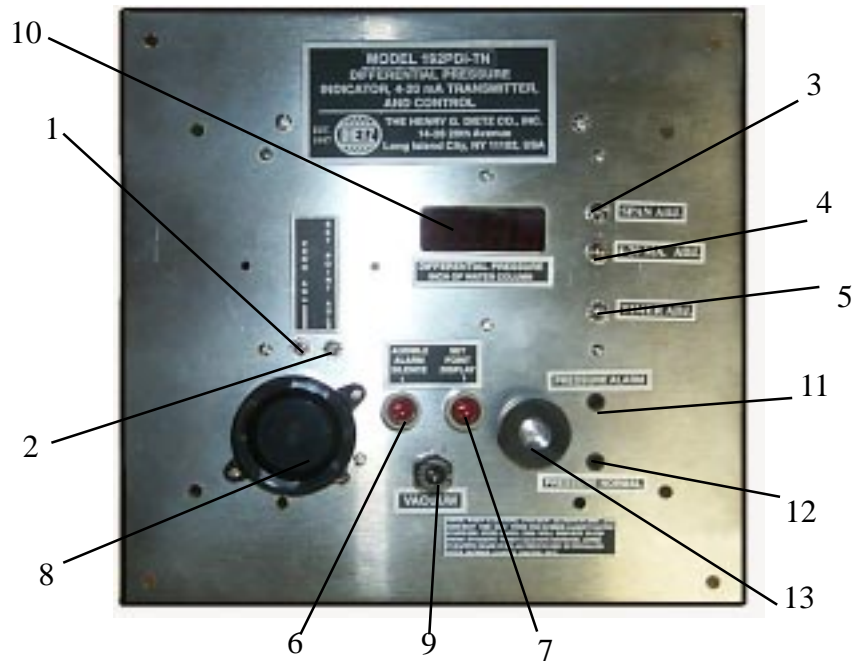


Monitor Panel



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MODEL 192 PDI-TN CLEAN ROOM PRESSURIZATION MONITOR



Can detect the negative pressure of biocontainment areas common in biopharmaceutical facilities, or the positive pressure common in electronic facilities. Adjustments 1,2,3,4,&5 require a special tool to prevent tampering.

1. ZERO ADJUSTMENT- Normally does not require adjustment, used to set zero operating point.
2. SET POINT ADJUSTMENT- Push set point display button (6) and adjust set point adjustment (2) to set low limit set point which triggers alarms when differential pressure falls below desired level.
3. SPAN ADJUSTMENT- Adjust to read same value on digital display as external calibrating instrument.
4. 4-20 mA. ADJUSTMENT- Allows adjustment of 4-20 mA. output (+ or -5 %) to match display device to which it is connected.
5. TIMER ADJUSTMENT- Adjustable time delay prevents activating audible alarm by momentary door opening.
6. AUDIBLE ALARM SILENCE SWITCH- Push to shut off audible alarm, will reset when normal differential pressure is restored.
7. SET POINT DISPLAY- Push button to display adjustable low limit point, which triggers alarm when differential pressure drops below desired level.
8. AUDIO ALARM- Loud audible alarm indicates when set differential pressure drops below set point.
9. CONNECTION TO CLEAN ROOM- Compression fitting for 1/4" O. D. tubing for connection to the cleanroom being monitored.
10. DIGITAL DISPLAY- Provides differential pressure display with resolution of 0.001" W.C., and pressure/vacuum range of 0.5" W.C., +/-0.5% accuracy.
11. RED LIGHT (ALARM) INDICATOR- Will illuminate when room differential pressure falls below desired level.
12. GREEN LIGHT (NORMAL) INDICATOR- Will illuminate when room is maintaining desired differential pressure.
13. REFERENCE PRESSURE- Normally open, but should be closed off when cleaning panel.

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