



# DIFFERENTIAL PRESSURE REMOTE ALARM MODEL: DPC-4570

## PRODUCT DESCRIPTION

The Differential Pressure (D.P) alarm panel is a simple, easy to install and configure solution to monitor the pressure drop across a filtration media or process. With a 5 button HMI, the operator can:

- Monitor inlet/outlet pressure on a continuously updating display with 0.01 PSI accuracy.
- Dynamically adjust the D.P alarm setpoint via the 5 digital pushbuttons
- Monitor the current D.P up to 99 PSID.

A red LED stack light will turn on when the current D.P pressure exceeds the setpoint value. The light can be configured to turn on solid or blink. An optional audible alarm module can be added for non-visual indication. Additionally, a “dry” set of relay contacts will close (Ø1, 6A, 250 VAC) when the setpoint is reached or exceeded. These contacts can be used to power ancillary equipment or remotely signal other systems.

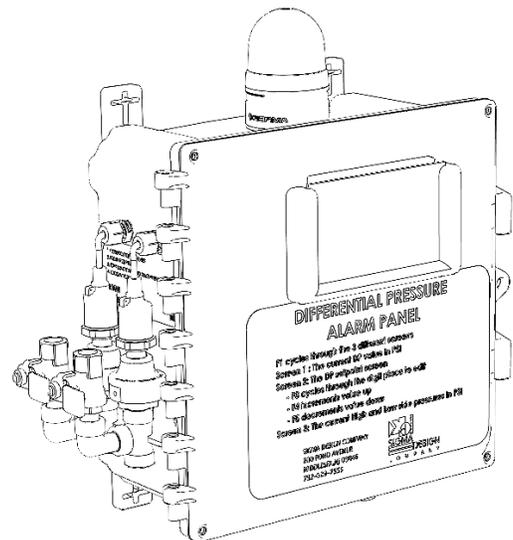
Diaphragm seals are installed to protect the transducers, and ¼” ball port sampling valves function as both a vent to bleed out entrained air, and as sample outlets for the two process streams. The system is configurable with 0-30, 0-60, 0-100, or 0-200 PSIG Pressure Transducers. System accuracy is +/- .5% the full range scale of the transducer selected.

The panel can be integrated into plant controls systems to remotely monitor information such as Inlet Pressure, Outlet Pressure, DP Pressure, and alarm status in real time over Ethernet/IP.

The enclosure is polycarbonate, UL508a listed, and designed to NEMA/Type 4X standards. The input voltage range is 115-230 VAC, Ø1.

## APPLICATIONS

Any filtration or process equipment where knowing the differential pressure across the device is a critical process parameter.



## OPERATING INSTRUCTIONS

1. DP Setpoint Adjustment
  - a. Press the F1 key to scroll through the windows until “DP Setpoint” is displayed.
  - b. Press F3 to cycle through the digits. The Digit with the blinking underline is the active digit.
  - c. Adjust the value up or down using the F4 and F5 keys.
    - i. The range is 00.01 to 99.00 PSI.
  - d. Once the desired DP value is set, press F1 to cycle to the different display windows.
2. Inlet/Outlet Pressure
  - a. Press F1 key to show the “INLET/OUTLET PRESSURE” window.
  - b. The display will update the inlet and outlet pressures every 1 second.
3. Differential Pressure
  - a. Press the F1 key to show the “DIFFERENTIAL PRESSURE” window.
  - b. The panel meter will now display the current differential pressure, measured as the Inlet Pressure minus Outlet Pressure
  - c. The display will dynamically adjust to any changes in process conditions based on the pressure readings from the transducers.
4. Process Connection and Bleeding Procedure
  - a. Connect pressure lines from the piping or equipment to the bottom of the tees on the side of the enclosure. The tee on the left is for the Inlet or High Side Pressure line. The tee on the right is for the Outlet or Low Side Pressure line.
  - b. Connect air release/drain lines to the top of the ¼” ball valves to control/manage the discharge or the entrapped air and process fluid.
  - c. Pressurize the system and open the ¼” ball valves to bleed off the entrapped air in the pressure lines.
  - d. Bleed the lines until a steady stream of process fluid flows from both lines.
  - e. Close the valves.
5. Dry Contact Connections
  - a. The Dry Contact connections are detailed in the lower left corner of the electrical schematic.
  - b. A normally open contact is provided between terminal blocks 7 & 8.
  - c. The contacts close when the differential pressure rises above the operator defined setpoint.