

# PRESSURSTAT



**TJERNLUND**  
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Installation Instructions

Form No 8504011

## MOUNTING

Two 13/64" slotted mounting holes are provided on foot style bracket for convenient surface mounting. For layout and proper spacing see Fig. 4.

To maintain specified operating set point at minimum range, air proving switch must be mounted with the diaphragm in any vertical plane. See Fig. 1 for typical vertical position.

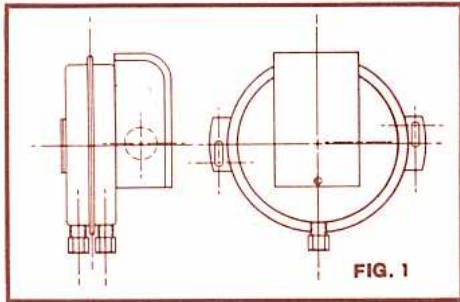
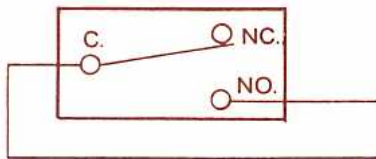


FIG. 1

## WIRING

Before pressure is applied to the diaphragm, the electrical switch contacts will be in a normally closed position as shown in Fig. 2.

FIG. 2



Wire Alarm Unit and Control as shown.

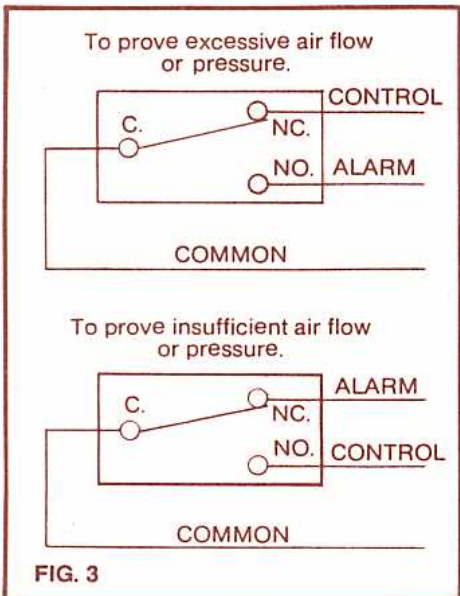


FIG. 3

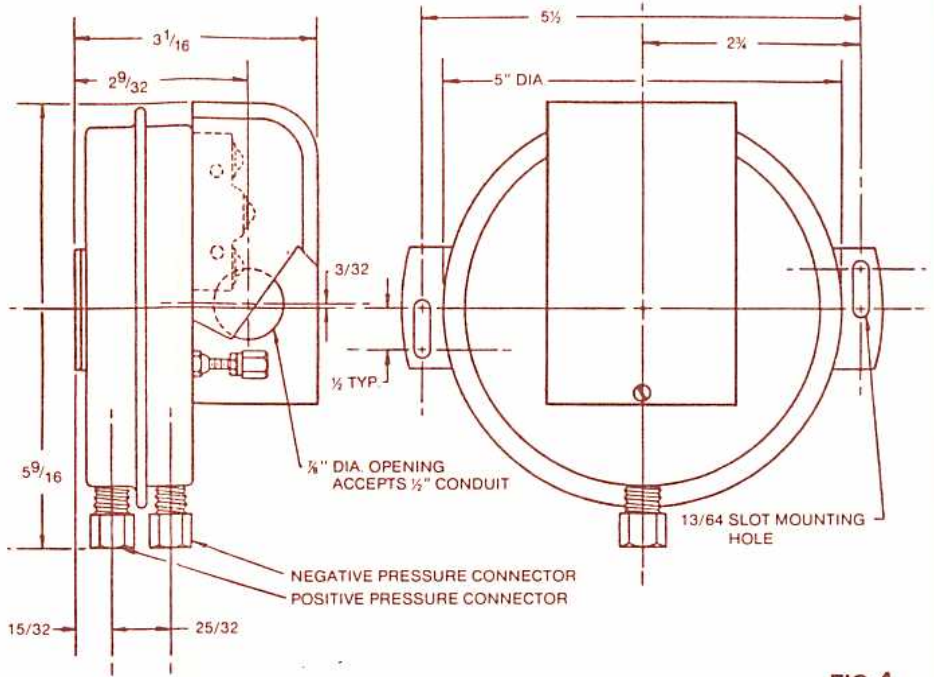


FIG. 4

## SAMPLE LINE CONNECTIONS

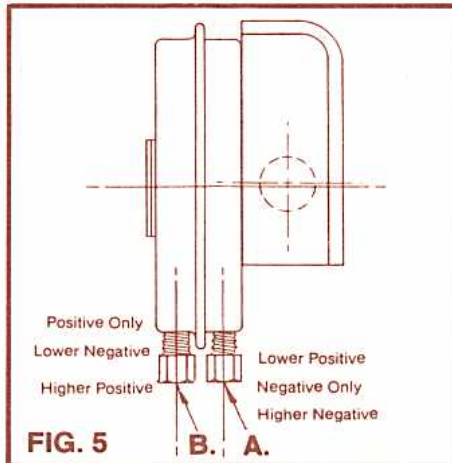


FIG. 5

**POSITIVE PRESSURE ONLY:** Connect sample line to B.; A. remains open to atmosphere.

**NEGATIVE PRESSURE ONLY:** Connect sample line to A.; B. remains open to atmosphere.

**TWO NEGATIVE SAMPLES:** Connect highest negative sample to A.; lower sample to B.

**TWO POSITIVE SAMPLES:** Connect highest positive sample to B.; lower sample to A.

**ONE POSITIVE AND ONE NEGATIVE:** Connect positive sample to B.; connect negative sample to A.

## FIELD ADJUSTMENTS

From the lowest operating point (see specification table) several turns of the adjustment knob are necessary to engage the adjustment spring. No change will occur until spring is engaged. For higher set points, continue turning in a clockwise manner.

**NOTE:** At higher operating pressures, there is a slight increase in switching differential.

## SPECIFICATIONS

### VOLTAGE:

278 VA Pilot Duty at 24 Volts AC.  
300 VA Pilot Duty at 115 to 277 Volts AC.;  
15 Amps. Non-Inductive to 277 Volts AC.;

### ELECTRICAL SWITCH:

Single Pole, Double Throw, Snap Action Contacts.

### ELECTRICAL CONNECTIONS:

No. 6 - 32 Screw Terminals with Cup Washers.

### CONTROL SET POINT:

Field Adjustable.

### SET POINT ADJUSTMENT RANGE:

.05 to 12.0" W.C.

### SWITCHING DIFFERENTIALS:

.02 ± .01" W.C. at minimum set point to approximately .80" W.C. at maximum set point.

### MAXIMUM PRESSURE:

1/2 PSI.

### OPERATING TEMPERATURE RANGE:

-40 to 190° F.

### RECOMMENDED OPERATING POSITION:

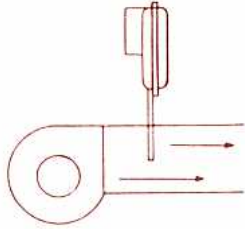
Diaphragm Vertical

### SAMPLE LINE CONNECTORS:

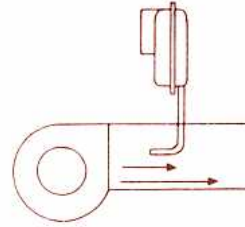
Integral Compression Type with Nuts and Ferrules suitable for 1/4" O.D. Aluminum, Copper, or Semi-Rigid Plastic Tubing.

## LOCATION OF SAMPLE LINES

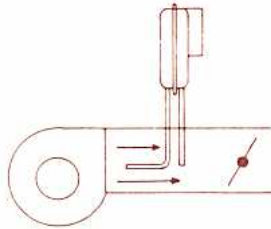
FAN OPERATION OR TRUE AIRFLOW WITH LITTLE OR NO STATIC PRESSURE. PROBE MUST BE PERPENDICULAR TO FLOW.



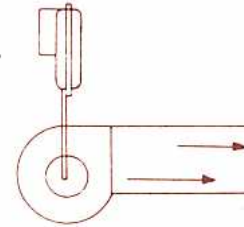
FAN OPERATION OR AIR FLOW WITH NO STATIC PRESSURE.



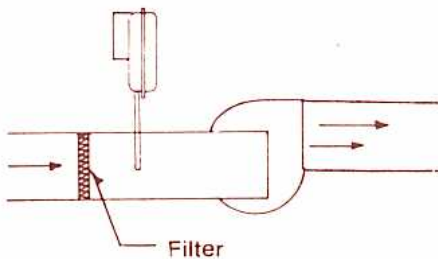
FAN OPERATION AND TRUE AIR FLOW WITH VARYING AMOUNTS OF STATIC PRESSURE. PROBE MUST BE PERPENDICULAR TO FLOW.



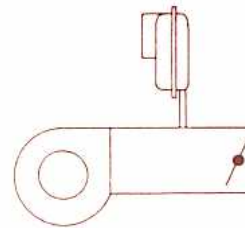
SUCTION OR FAN OPERATION.



NEGATIVE PRESSURE INCREASES AS FILTER GETS DIRTY.



PROVE POSITIVE STATIC PRESSURE.

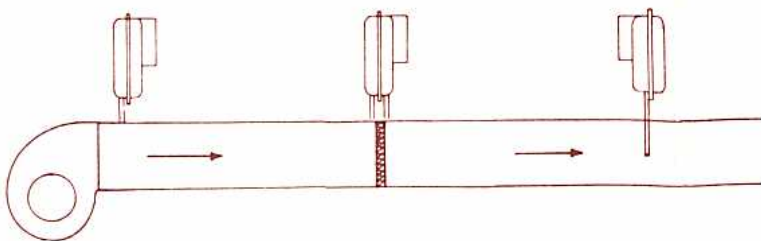


3 WAYS TO PROVE FILTER ON POSITIVE PRESSURE.

POSITIVE STATIC PRESSURE INCREASES AS THE FILTER GETS DIRTY.

DIFF. ACROSS FILTER CHANGES AS IT GETS DIRTY.

FLOW IS REDUCED AS FILTER GETS DIRTY.



### PRESSURE CONVERSION TABLE

1" Water = .0361 lbs/sq. in. or .0735 in. Mercury  
 1" Mercury = 13.6 in. water or .491 lbs/sq. in.  
 1 PSI = 27.7 in. water or 2.036 in. Mercury.