



**AIR PRESSURE SENSING SWITCH WITH FIXED SET POINT**

**APPLICATION**

**Model PS-306-112** air pressure proving switch is designed for duct heater, oven, and other HVAC or Energy Management applications which require a nonadjustable switch.

**The PS-306-112 switch senses positive air pressure.** It is equipped with a convenient barbed sample line connector that accepts flexible tubing. This switch is especially suitable for surface-mounting in areas where internal access is limited.

**GENERAL DESCRIPTION & OPERATION**

The plated housing contains a diaphragm and a snap-acting **SPDT** switch.

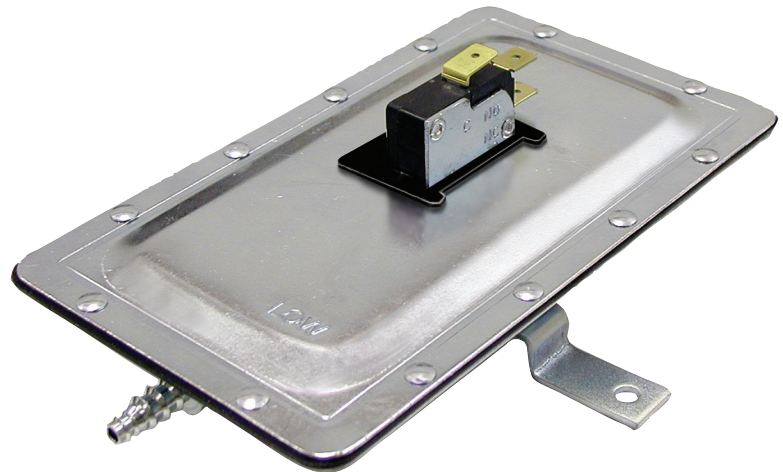
The barbed sample line connection is situated on the positive side of the diaphragm. It accepts  $\frac{1}{8}$ " to  $\frac{1}{4}$ " ID flexible tubing.

The electrical connection consists of male  $\frac{1}{4}$ " quick connect spade terminals.

The **SPDT** snap action switch operates on pressure rise of 0.05"wc,  $\pm$  0.02" wc. For additional application and technical information, please contact the sales office.

**MOUNTING (FIG.1)**

Select a mounting location which is free from vibration. The **Model PS-306-112** switch must be mounted with the diaphragm in any vertical plane in order



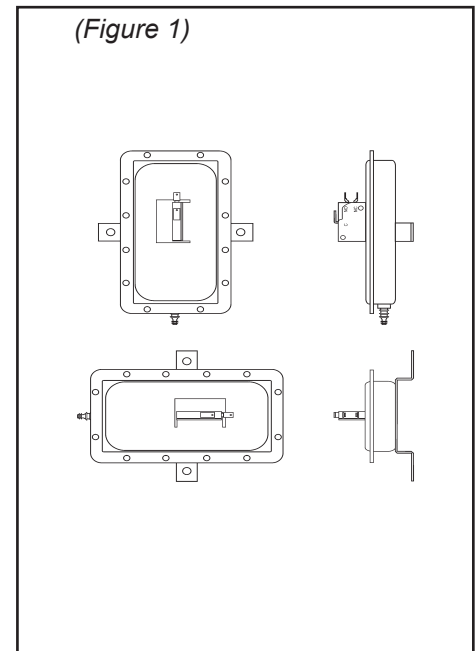
to maintain the specified operating set point. Avoid mounting with the sample line connection in the "up" position. Surface mount via the two  $\frac{3}{16}$ " diameter holes on the zinc-plated strap bracket. The mounting holes are  $3\text{-}\frac{7}{8}$ " apart.

**AIR SAMPLING CONNECTION (FIG. 2)**

**Model PS-306-112 sensing switch** is equipped with a slip-on sample line connection situated on the positive side of the diaphragm as shown in **Figure 2**. This connection is suitable for  $\frac{1}{8}$ " to  $\frac{1}{4}$ " ID flexible tubing.

Locate the sampling probe a minimum of 1.5 duct diameters downstream from the air source. Install the sampling probe as close to the center of the air-stream as possible.

(Figure 1)



## SPECIFICATIONS

Model ps-306-112

Air Pressureensing Switch  
with Fixed Set Point

**Mounting Position:**

Mount with the diaphragm  
in any vertical plane.

**Set Point Range:**

Fixed to operate on pressure rise at  
 $0.05 \pm 0.02$ "wc ( $1.27 \pm 0.508$  mm).

**Approximate Switch Differential:**

$0.02 \pm 0.01$ "wc  
( $0.5082 \pm 0.254$  mm wc).

**Measured Media:**

Air or combustion by-products  
that will not degrade silicone.

**Maximum Pressure:**

$\frac{1}{2}$  psi (0.03 bar).

**Operating Temperature Range:**

-40 to 180F (-40.0 to 82.2C).

**Life:**

100,000 cycles minimum at  $\frac{1}{2}$  psi  
maximum pressure each cycle and  
at maximum rated electrical load.

**Electrical Rating:**

5 amp noninductive 120 to 277 VAC.  
1 amp pilot duty (120 Va) at 120 VAC.

**Contact Arrangement:**

SPDT.

**Electrical Connections:**

Male  $\frac{1}{4}$ " quick-connect terminals.

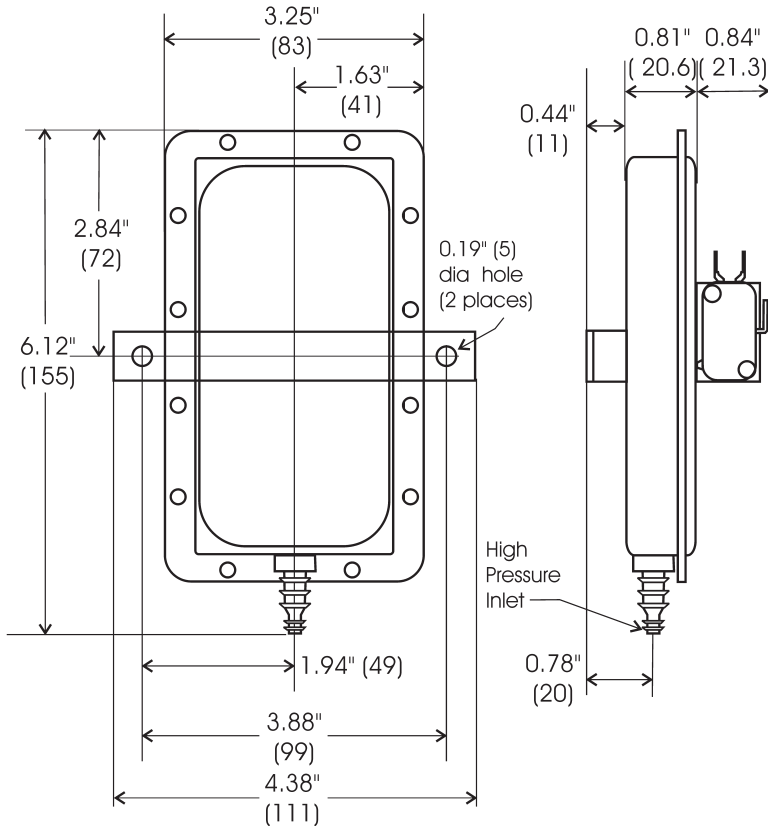
**Sample Line Connectors:**

Barbed  $\frac{1}{8}$  to  $\frac{1}{4}$ " slip-on connector  
suitable for flexible tubing.

**Approvals:**

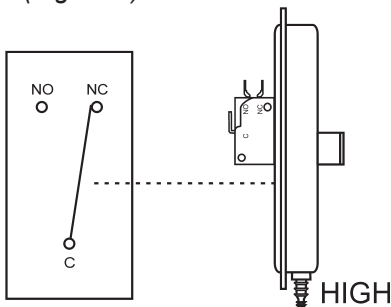
UL & CUL approved; CSA  
& CE are pending.

**Shipping Weight:** < 1 lb.

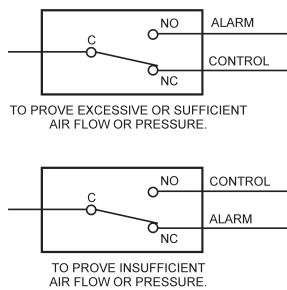


Dimensions in Inches (Millimeters)

(Figure 2)



(Figure 3)



## ELECTRICAL CONNECTIONS (FIGS. 2 & 3)

Before pressure is applied to the diaphragm, the switch contacts will be in the normally closed (NC) position as shown in **Figure 2**.

Control and alarm functions are wired as shown in **Figure 3**.