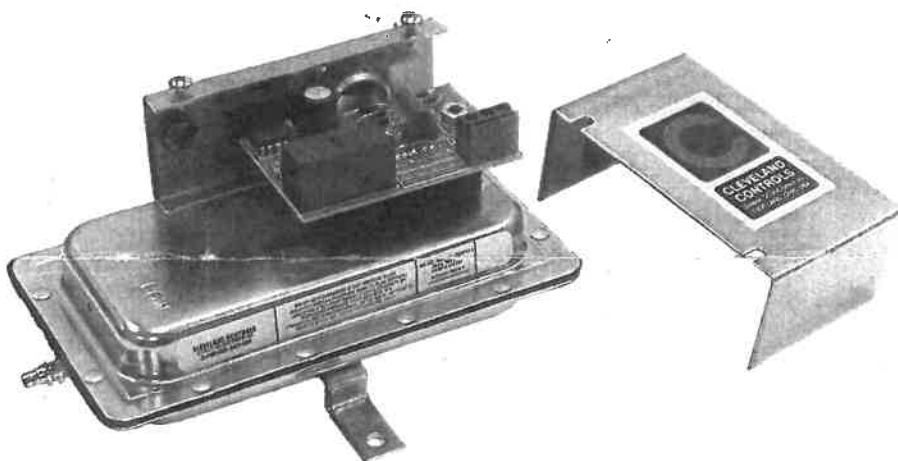
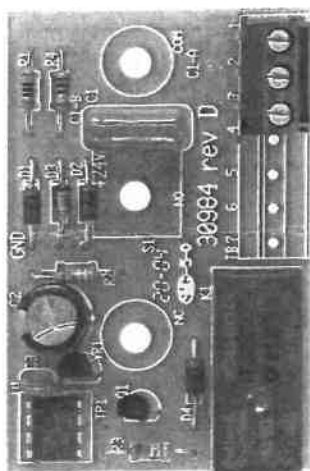




Cleveland Controls
Division of UniControl Inc.

Model
FS-751-385

AIR PRESSURE SENSING SWITCH WITH ELECTRONIC CYCLE TIMING BOARD



APPLICATION

Model **FS-751-385** is an air flow proving switch with an electronic cycle timing board designed for HVAC or Energy Management applications where a non-adjustable switch is required. The **FS-751-385** senses positive air pressure. The convenient barbed sample line connector accepts flexible tubing. The **FS-751-385** is especially suitable for surface-mounting in areas where internal access is limited. A conduit enclosure equipped with a 1/2" strain-relief cable fitting provides protection against accidental contact with the switch terminals.

GENERAL DESCRIPTION & OPERATION

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

The barbed sample line connection located on the high pressure side of the diaphragm accepts flexible tubing.

The SPNO snap action switch operates on pressure rise of $0.05" \text{w.c.} \pm 0.02" \text{w.c.}$ The cycle timing board functions as an integral recycling delay timer. For additional application and technical information, please contact the sales office.

MOUNTING (FIGURE 1)

Select a mounting location that is free from vibration. The **FS-751-385** 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 3/16" diameter holes on the zinc-plated strap bracket. The mounting holes are 3-7/8" apart.

AIR SAMPLING CONNECTION (FIGURE 2)

The **FS-751-385** is equipped with a barbed 1/8" - 1/4" slip-on sample line connection, situated on the high pressure side of the diaphragm as shown in Figure 2. The connection is suitable for 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 airstream as possible.

ELECTRICAL CONNECTIONS (FIGURES 2 & 3)

Before pressure is applied to the diaphragm, the switch contacts will be in the null position. Wire control and alarm functions as shown in Figure 3.



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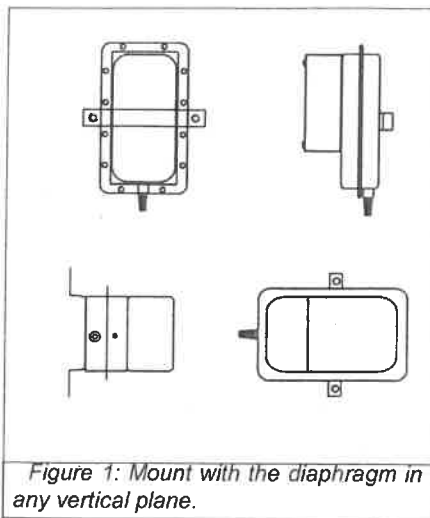


Figure 1: Mount with the diaphragm in any vertical plane.

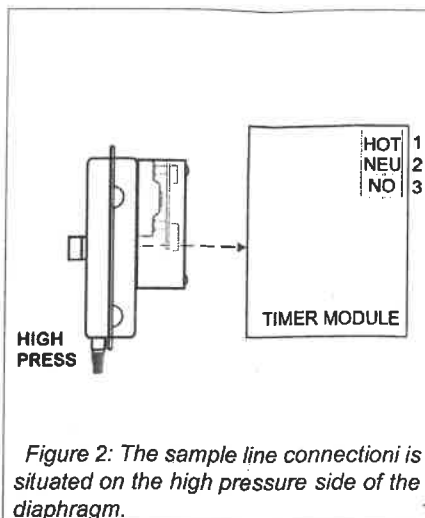


Figure 2: The sample line connection is situated on the high pressure side of the diaphragm.

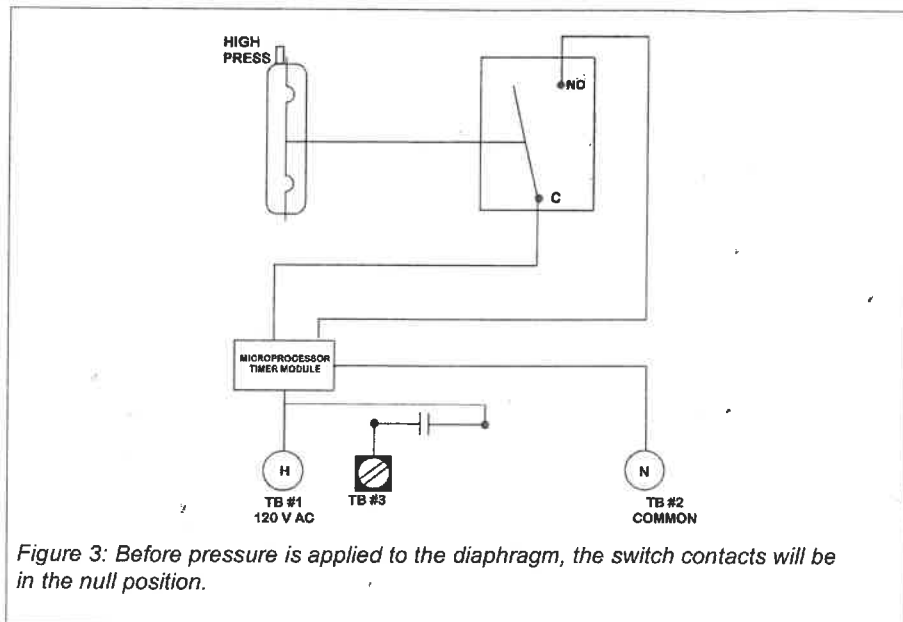
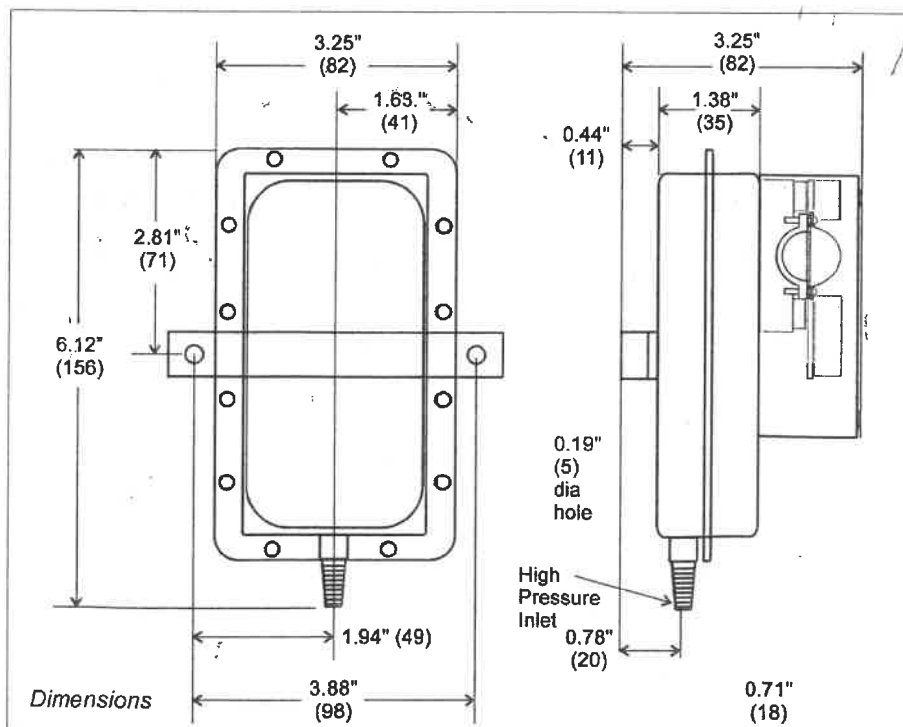


Figure 3: Before pressure is applied to the diaphragm, the switch contacts will be in the null position.



SPECIFICATIONS

MODEL FS-751-385 AIR PRESSURE SENSING SWITCH WITH FIXED SET POINT

Mounting Position:

Mount with the diaphragm in any vertical plane to obtain specified operating set point.

Set Point:

Fixed to operate on pressure rise at
0.05±0.02" w.c.
(1.27±0.508 mm)

Switching Differential (Approximate):

0.02±0.01" w.c.
(0.508±0.254 mm w.c.)

Measured Media:

Air, or combustion byproducts that will not degrade silicone.

Maximum Pressure:

½ psi (0.03 bar)

Operating Temperature Range:

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

Life:

100,000 cycles minimum at ½ psi maximum pressure each cycle and at maximum rated electrical load.

Electrical Rating:

300 VA pilot duty at 115 to 277 VAC, 15 amps noninductive to 277 VAC, 60 Hz.

Contact Arrangement: SPNO

Electrical Connections:

Screw-type terminals.

Sample Line Connector:

Barbed ¼" - ½" slip-on connector accepts flexible tubing.

Shipping Weight: 1.2 lbs

Approvals: UL, CSA.

FUNCTIONAL SPECIFICATIONS

Integral recycling delay timer with 10 minute ON, 15 seconds OFF cycle, 120 volt input.

Power:

120 V AC +10%/-15%, 50/60 Hz.

Timing Range:

10 minutes (600 seconds) ±10%.

Output:

SPNO relay rated for 8 amps (resistive) @ 250 VAC or ½ hp @ 250 VAC.

Electrical Connections:

Terminal block with clamp-type screw connector suitable for 12-26 AWG.

Temperature Range:

-40 to 140 F (-40 to 60C).