

ANS2 SERIES ADJUSTABLE AIR PRESSURE SWITCH



DESCRIPTION & OPERATION

The ANS2 is a field adjustable universal air pressure switch that can be applied to residential and commercial HVAC applications, commercial kitchen equipment (such as hoods and fryers), outdoor radiant heating products, pool and spa heating systems, and a variety of other applications.

The switch can sense positive, negative or differential air pressure. It contains a sensing diaphragm and integral snap-acting switch with three male 90° quick-connect spade terminals. The set point is field adjustable within its set point range. Three standard ranges are offered.

SET POINT ADJUSTMENT

Calibration requires no tools other than an Allen wrench. The procedure is simple: while observing the set point indicator window on the bottom of the gray mounting pan ("adjustment cover"), use an Allen wrench to turn the adjustment screw past the desired setpoint "up" clockwise. Then, in small increments, turn it "down" counterclockwise until the desired set point is reached. Be sure to confirm the set point at actual operating temperature. If desired, use hot melt glue to seal the adjustment screw. Never place a switch in operation without knowing what the set point is: doing so could create a hazardous situation.

MOUNTING

Using two screws, mount via the integral mounting feet. Select a mounting location free from vibration. Mount with the diaphragm in any vertical plane. Do not mount with the sample line connections directed upward.

Please note that the ANS2 adjustment cover can be removed for mounting where clearance is limited, giving the unit the same footprint as the NS2 switch.

Warning: If the adjustment cover is removed the scale becomes invalid and can no longer be used to adjust the set point. If further adjustment is required, use a PVG and Manometer.

ELECTRICAL CONNECTIONS

The snap switch has three ¼" 90° male quick connect terminals. Before pressure is applied to the diaphragm, the switch contacts are in the normally closed position.

AIR SAMPLING CONNECTION

Two integral sample line connectors, located on the high and low sides of the diaphragm, accept ⅜" ID flexible tubing. The high or positive inlet (P1) is black, and the low or negative inlet (P2) is gray. Connect the sample lines as follows:

Positive Pressure Only:

Connect the sample line to P1; P2 remains open to the atmosphere.

Negative Pressure Only:

Connect the sample line to P2; P1 remains open to the atmosphere.

Two Negative Samples:

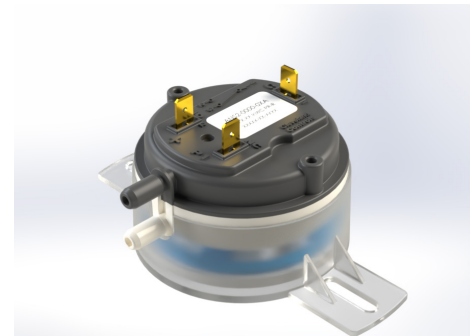
Connect higher negative sample to P2; lower sample to P1.

Two Positive Samples:

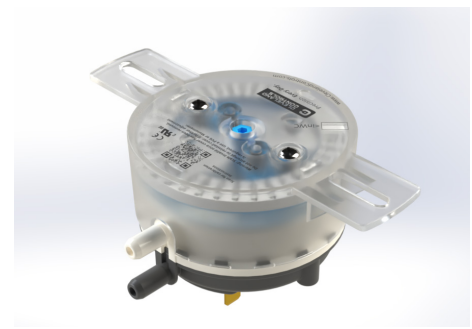
Connect higher positive sample to P1; lower sample to P2.

One Positive and One Negative:

Connect positive sample to P1; connect negative sample to P2.



Ideal for residential and commercial HVAC applications, and a variety of other applications.

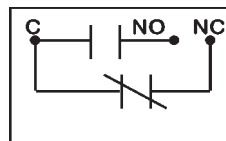


Set point adjustment screw and visual set point indicator are located on the mounting pan.

TABLE 1: MODEL SELECTION

Model Number:	Range:
ANS2-1000-00(k)	0.08" wc to 1.0" wc
ANS2-2000-00(k)	0.15" wc to 2.0" wc
ANS2-3000-00(k)	2.0" wc to 10.0" wc

If you purchase an ANS2 Kit (k), the kit includes a bracket, orifices, and ⅜" ID silicon cured tubing (2 ft.).



SPDT

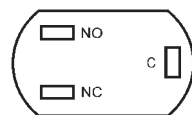


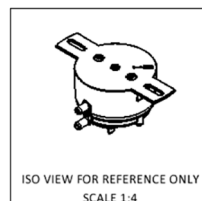
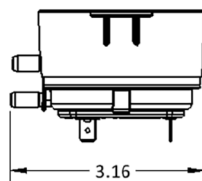
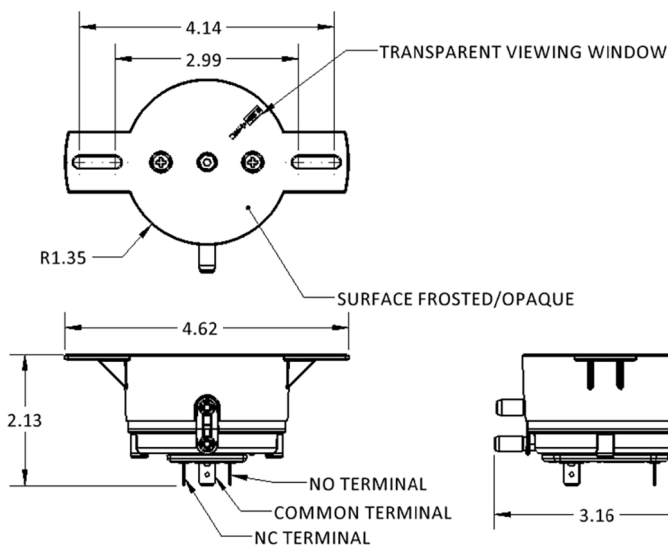
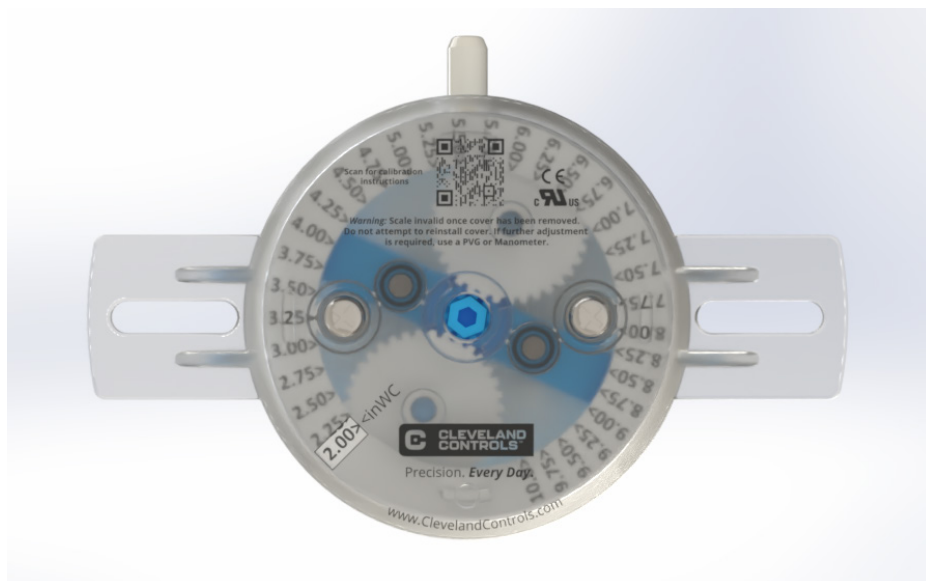
Fig.2: Without pressure applied to the diaphragm, switch contacts are in the position shown.

1/4" OD accepts 3/16" flexible tubing.



STANDARD
INTEGRAL
CONNECTOR

Fig. 3: Standard integral connector accepts 3/16" ID tubing.



SPECIFICATIONS: ANS2 SERIES AIR PRESSURE SENSING SWITCH



Set Point Ranges:

ANS2 Series 1000: 0.08" wc to 1.0" wc

ANS2 Series 2000: 0.15" wc to 2.0" wc

ANS2 Series 3000: 2.0" wc to 10.0" wc

Measured Media:

Air and byproducts of combustion that will not degrade silicone or polycarbonate

Mounting Position: Mount with the diaphragm in a vertical plane

Operating Temperature Range:

-40 °F to 190 °F (-40 °C to 88 °C)

Life: 100,000 cycles minimum

Contact Arrangement: SPDT

Electrical Connections:

Quick-connect copper-alloy terminals;
1/4" x 0.032

Electrical Rating: Fine Silver Contacts; SPDT

Electrical load:

1/10 HP @120 to 277 V ac

28 VA pilot duty @ 24 V ac

125 VA pilot duty @ 120 V ac

Sample Line Connections:

Black is positive, gray is negative

Sample Line Connectors:

Integral slip-on connectors, 1/4" OD,
accepts 3/16" ID flexible tubing

Approvals: cURus

Shipping Weight:

< 1 lb; varies with configuration

Accessories (separate purchase):

Sample line probes

Tubing for HVAC applications

ANS2 Kit:

Includes bracket, orifices,
3/16" ID silicon cured tubing (2 ft.)