



# Cleveland Controls

Division of UniControl Inc.

# Model RFS-4150

## AIR PRESSURE SENSING SWITCH WITH ADJUSTABLE SET POINT

### APPLICATION

Model RFS-4150 is a general purpose proving switch designed for HVAC and Energy Management applications. This switch can be used to sense positive, negative, or differential air pressure.

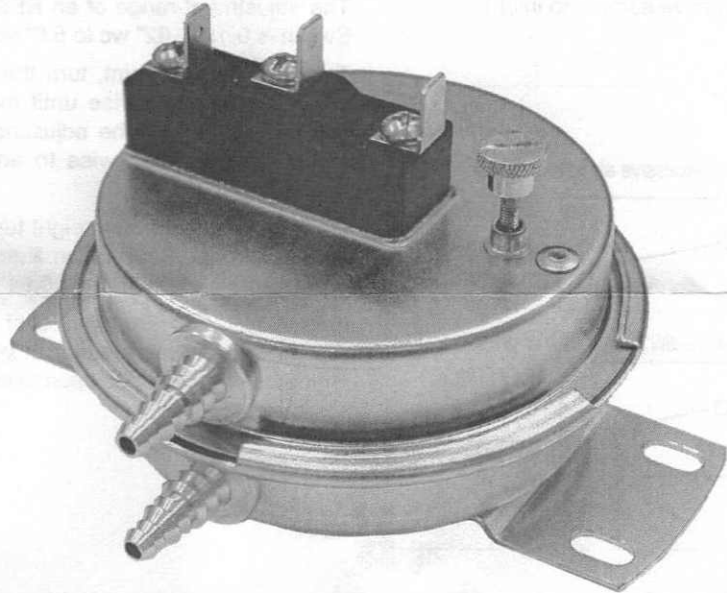
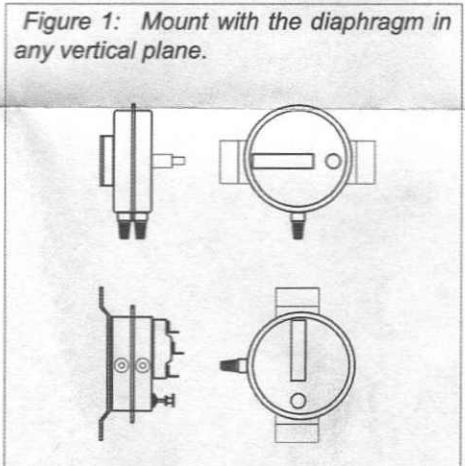
### GENERAL DESCRIPTION & OPERATION

The plated housing contains a diaphragm, a calibration spring, and a snap-acting switch. The sample line connections located on each side of the diaphragm accept 1/8", 1/4", and 3/8" flexible tubing. Various electrical connections are available.

### MOUNTING (FIG. 1)

Select a mounting location which is free from vibration. The Model RFS-4150 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 connections in the "up" position.

The standard model is surface-mounted via the four 3/16" wide slots on the zinc-plated strap bracket. The mounting slots are 3-7/8" apart. Custom mounting configurations are available.



### AIR SAMPLING CONNECTION (FIG. 2)

Model RFS-4150 switches are equipped with sample line connections situated on either side of the diaphragm as shown in Figure 2. These connections are designed to accept flexible tubing by means of the barbed sample line connections. Locate the sampling probe a minimum of 1.5 duct diameters downstream from the air source. For sample lines up to 10 feet in length, 1/4"OD tubing is acceptable. For lines up to 20 feet, use 1/4"ID tubing. For lines up to 60 feet, use 1/2" ID tubing. Install the sampling probe as close to the center of the airstream as possible.

Refer to Figure 2 to identify the high pressure inlet (H) and the low pressure inlet (L). Select one of the five application options listed below, and connect the sample lines as recommended.

**Positive Pressure Only:** Connect the sample line to inlet H; inlet L remains open to the atmosphere.

Figure 2

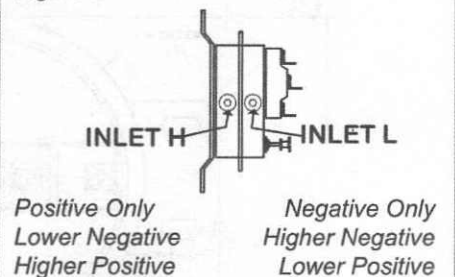
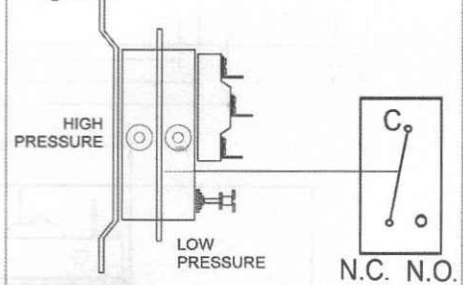


Figure 3



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