

SERIES DNS2



- Ideal for 2-stage furnace applications
- Contaminant-free construction
- High accuracy and reliability
- Sturdy, compact, low cost

APPLICATION

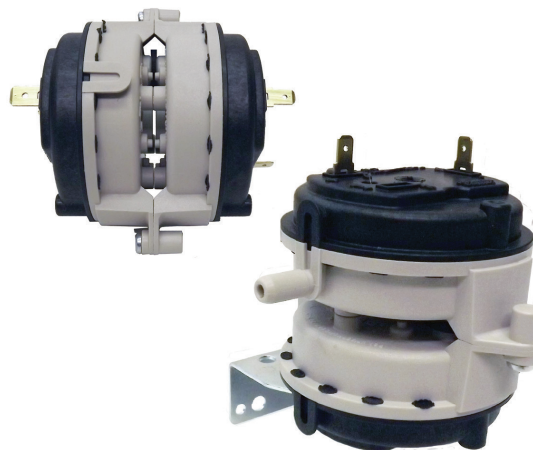
Series DNS2™ Air Flow Pressure Sensing Switches are the best solution for applications that require dual set points. In addition, DNS2™ switches have a narrow switching differential, and low set point tolerance over a wide operating temperature and set point range. Factory-calibrated and sealed set points are available from 0.05" to 10.0" wc.

DNS2™ switches can be used to sense positive, negative or differential air pressure. Typically, DNS2™ switches are applied to two-stage furnaces where high fire and low fire set points are required.

DNS2™ Switches are essentially two separate NS2™ switches joined together. Two configurations are available:

- Interconnected models have a single inlet so that only one pressure/vacuum connection needs to be made. The cavities of the two switch pans are joined as shown in Figure 1.
- Independent models consist of two completely separate switches joined externally to provide the convenience of a single compact mount. Use these in any situation where two switches are needed. See Figure 2.

DNS2™ switches can be provided with any of the options and configurations available for Cleveland Controls Series NS2™ switches. The glass-filled polycarbonate body of the switch provides a high degree of stability



and accommodates many sample line connector options. The pressure ports are color-coded and labeled for ease of identification: High (P1), Positive, is black; Low (P2), Negative, is gray. Port, bracket, and terminal orientations can be specified. An optional bleed hole can be provided.

The integral snap-acting switch mechanism (patent pending) is available in SPNO, SPNC, and SPDT terminal configurations.

All NS2™ accessories are also available, including numerous standard and custom mounting brackets. Please consult Cleveland Controls about the many custom features we offer.

ELECTRICAL CONNECTIONS

The snap switch has 90° male quick connect terminals in 1/4" (standard) or 3/16" (optional) sizes.

DESCRIPTION & OPERATION

Each of the two glass-filled polycarbonate housings contains a sensing diaphragm and an integral snap-acting switch. One or two sample line connectors are located on either or both sides of the diaphragm to accept air sample connections. The snap action switch can be actuated by a pressure or vacuum air flow, or by a pressure or vacuum differential.

MOUNTING

The DNS2™ switch is commonly supplied with brackets for a specific OEM application. In all cases, regardless of the type of mounting, install the DNS2™ in a location that is free from vibration. Do not mount with the sample line connections directed upward. Mount with the diaphragms vertical, or at a custom angle. If the mounting position is not vertical, please specify it when placing an order to ensure precise calibration.



SPECIFICATIONS
MODEL DNS2-XXXX-00

All specifications for the DNS2™ switch are the same as the specifications for the two individual NS2™ switches that are joined to create the dual switch. Please consult the individual switch literature.

Factory Set Point Range:

Set point of each module is factory-calibrated and sealed to customer requirements. Each set point must have a value between 0.05" wc and 10.0 ± 0.05" wc.

Options:

Any NS2™ option can be provided on DNS2™ models.

Accessories:

Please consult the factory for more information on inline orifices, mounting bracket kits, sensing probes and more.

Approvals:

UL, CUL, CSA, Ce and IAPMO-R&T Oceana.

Shipping Weight:

¼ lb., approximately

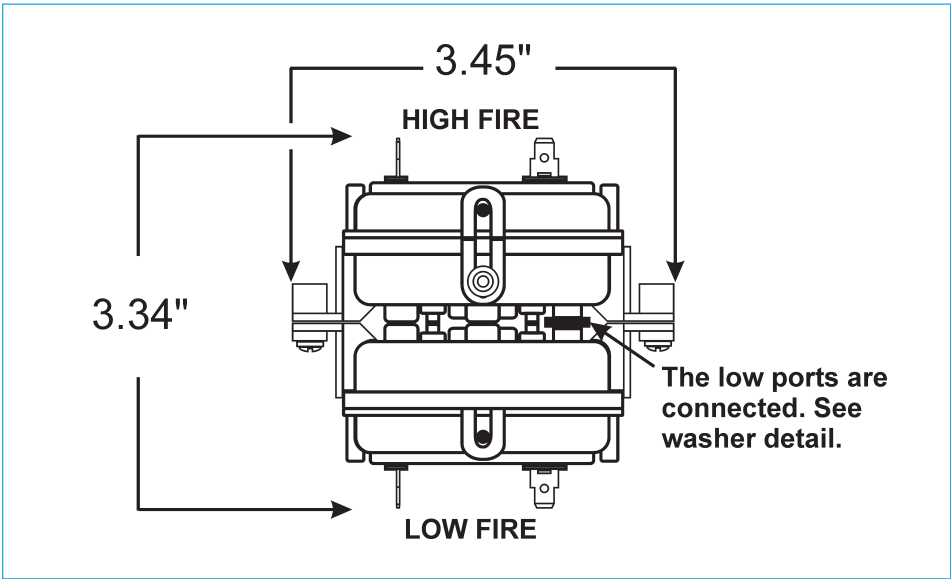


Figure 1:
A typical **interconnected** DNS2 switch. There is only one process inlet, and the switch cavities are connected.

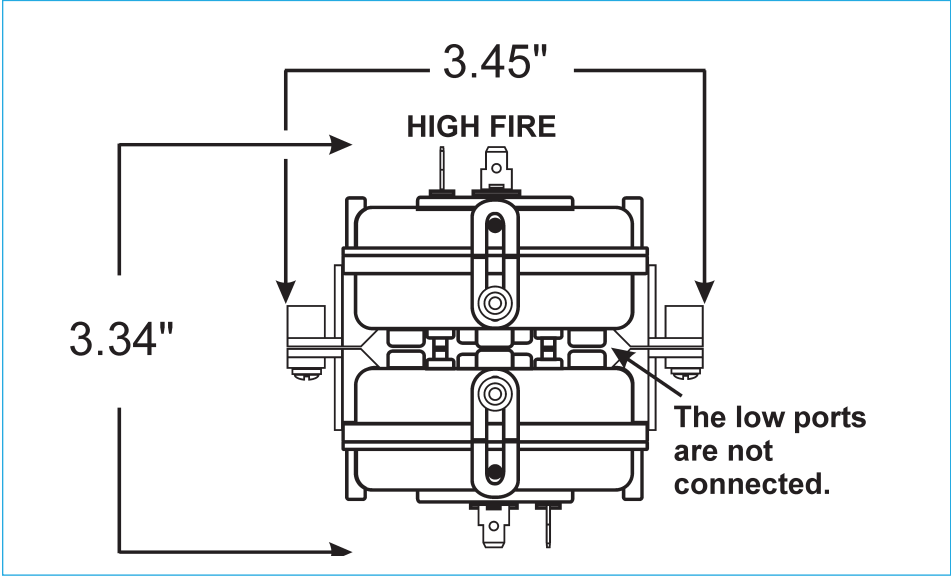
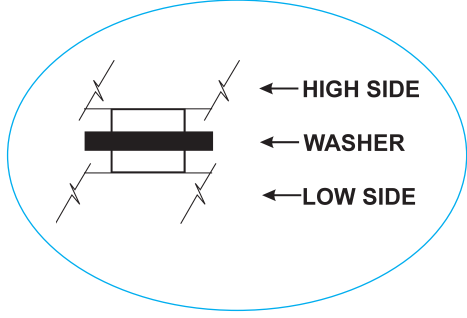


Figure 2:
A typical **independent** DNS2 switch. The switches are completely separate, but are joined for convenient mounting

