



# PRESSURE

## DIFFERENTIAL PRESSURE SWITCHES

### MODELS AFS-222, AFS-262, AFS-460

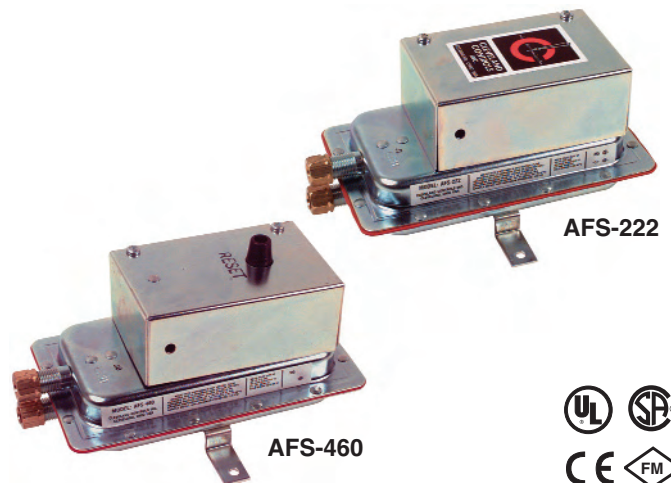
#### DESCRIPTION

**Models AFS-222, AFS-262, and AFS-460 Differential Pressure Switches** are general-purpose, airflow-proving switches designed for HVAC and building automation applications. They may be used to sense positive, negative, or differential air pressure. The **AFS-460** models have a manual reset push button; the N.C. switch will open upon pressure rise to setpoint but will not close until the reset button is pushed.

The plated housing contains a diaphragm, calibration spring, and snap-acting SPDT switch. The sample connections located on each side of the diaphragm accept 1/4" OD tubing via the integral compression ferrule and nut. An enclosure cover guards against accidental contact with the live switch terminal screws and the setpoint adjusting screw. The enclosure will accept a 1/2" conduit connection.

#### FEATURES

- *Two-year warranty*
- *Adjustable setpoint*
- *For static or differential pressure*
- *UL, CSA, FM approved*
- *Manual reset (Model AFS-460)*



#### APPLICATIONS

- *Proving fan status*
- *Monitoring filter for excess pressure drop*
- *Monitoring duct static pressure*
- *Proving air flow*
- *Monitoring damper status*

#### SPECIFICATIONS

<b>Setpoint range</b> <b>AFS-222</b> 0.05" to 12.0" W.C. (12.5 to 2989 Pa) <b>AFS-262</b> 0.05" to 2.0" W.C. (12.5 to 498 Pa) <b>AFS-460</b> 0.04" to 12.0" W.C. (10.0 to 2989 Pa) <b>AFS-460-DSS</b> 2.0" to 12.0" W.C. (498 to 2989 Pa)		<b>AFS-460</b> 15A @ 125-277 VAC 1/4 HP @ 125 VAC 1/2 HP @ 250 VAC 1/2A @ 125 VDC <b>Overpressure</b> 0.5 psig (3.5 kPa) <b>Operating temp</b> -40° to 180°F (-40° to 82°C) <b>Pressure connections</b> Ferrule and nut compression type connectors will accept 1/4" OD tubing <b>Connections</b> Screw-top terminals with cup washers <b>Agency approvals</b> UL listed, FM, CSA, CE <b>Weight</b> 2.0 lb (0.91 kg) <b>Life</b>	
<b>Switch differential, AFS-222, -202 only</b> Progressive, increasing from approximately 0.02" W.C. (5.0 Pa) @ min setpoint to approximately 0.8" W.C. (199 Pa) @ max setpoint		<b>AFS-222, -202</b> 100,000 cycles min @ 0.5 psig (3.5 kPa) max pressure each cycle and at max electrical load <b>AFS-460</b> 6000 cycles <b>Warranty</b> 2 years	
<b>Contacts</b> <b>AFS-222, -202</b> SPDT <b>AFS-460</b> SPST N.C. <b>AFS-460-DSS</b> 2-SPST N.C. <b>Electrical rating</b> 300 VA pilot duty @ 115-277 VAC <b>AFS-222, -202</b> 15A non-inductive, 277 VAC, 60 Hz 24 VAC @ 2.4A			

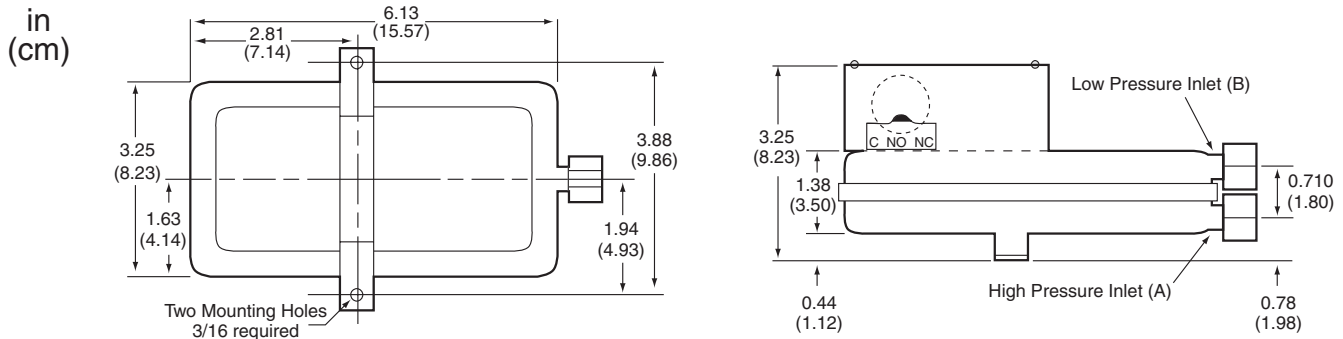


# PRESSURE

## DIFFERENTIAL PRESSURE SWITCHES

### MODELS AFS-222, AFS-262, AFS-460

#### DIMENSIONS



#### OPERATION

Select a mounting location that is free from vibration. The switch must be mounted with the diaphragm in any vertical plane in order to obtain the lowest specified operating setpoint. Avoid mounting with the sample line connections in the up position. Surface mount via the two 3/16" diameter holes in the integral mounting bracket.

The Model **AFS-460-DSS** has a lead switch (A) and a lag switch (B). The lead switch trips according to the setpoint knob and the lag switch trips after the lead switch. If dual-switch simultaneous operation is required, order (not stocked at Kele) **AFS-460-136** (120 VAC power) or **AFS-460-137** (24 VAC power).

Locate sampling probe a minimum of 1-1/2 duct diameters downstream from the air source. Install the sampling probe as close to the center of the airstream as possible.

Refer to the Dimensions drawing to identify the high pressure inlet (A) and the low pressure inlet (B), and connect the sample lines as follows:

##### Positive Pressure Only

Connect the sample line to (A);  
(B) remains open to the atmosphere.

##### Negative Pressure Only

Connect the sample line to (B);  
(A) remains open to the atmosphere.

##### Two Negative Samples

Connect the higher negative sample to (B);  
Connect the lower negative sample to (A).

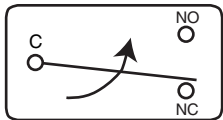
##### Two Positive Samples

Connect the higher positive sample to (A);  
Connect the lower positive sample to (B).

##### One Positive and One Negative Sample

Connect the positive sample to (A);  
Connect the negative sample to (B).

#### WIRING



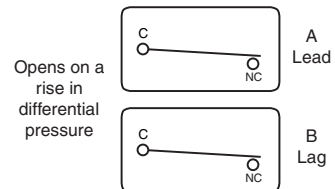
Action on a rise in differential pressure

**AFS-222, -262**



Opens on a rise in differential pressure

**AFS-460**



Opens on a rise in differential pressure

**AFS-460-DSS**

#### ORDERING INFORMATION

MODEL	DESCRIPTION
AFS-222	0.05" to 12" W.C. (12.5 to 2989 Pa)
AFS-222-C	Kele calibrated for your application (specify setpoint)
AFS-262	0.05" to 2" W.C. (12.5 to 498 Pa)
AFS-262-C	Kele calibrated for your application (specify setpoint)
AFS-460	Manual reset differential pressure switch
AFS-460-C	Kele calibrated for your application (specify setpoint)
AFS-460-DSS	Manual reset differential pressure switch with two SPST switches
AFS-400-DSS-C	Kele calibrated for your application (specify setpoint)

#### RELATED PRODUCTS

#21121	Duct impact tube
A-301-K, A-302-K, A-345-K	Static pressure tip