



PRESSURE

ADJUSTABLE SETPOINT-AIR DIFFERENTIAL PRESSURE SWITCHES AFS SERIES

DESCRIPTION

The **Cleveland Controls AFS Series Adjustable Differential Pressure Switches** are general-purpose, airflow-proving switches designed for HVAC and building automation applications. The **AFS Series** can be used to sense positive, negative, or differential air pressure. The diaphragm and calibration spring are housed in a plated enclosure with a removable metal guard protecting the set point screw and snap action switch terminals. Electrical connections are made through a 7/8 diameter opening in the metal guard that accepts a conduit connection. Air sampling connections accept OD rigid or semi rigid tubing. For low current applications use **Model AFS-405** with gold contacts.



AFS Series



FEATURES

- Adjustable set point
- For static or differential pressure
- 15A switch rating
- Gold contacts (Model AFS-405)
- UR, CSA, FM approved
- Two-year warranty

APPLICATION

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

SPECIFICATIONS

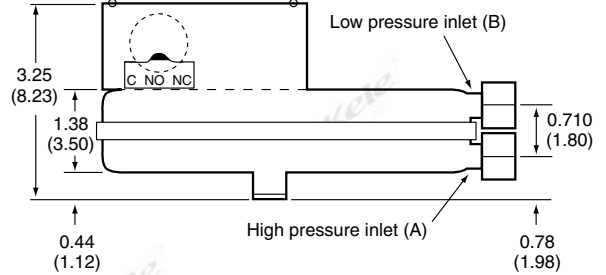
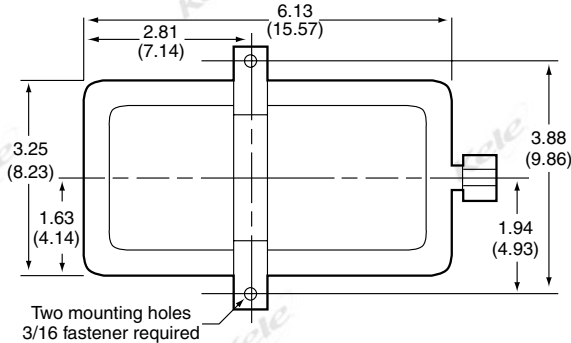
Relay Type	SPDT	Wetted Parts	Silicone
Relay Rating	2.4 A @ 24 VAC; 15 A @ 277 VAC	Media Compatibility	Inert dry air
Setpoint (SP)	Adjustable, 0.05 to 12.0" WC	Process Connection	1/8" FNPT, 1/4" compression, 1/4" barb (see ordering)
Differential Progressive	0.02" to 0.8" WC per setpoint	Wiring Terminations	3 Terminals
Reset Auto reset	All models	Mounting Vertical	2 tabs w/Holes 0.19" (0.48 cm)
Sensor Type	Silicone Diaphragm	Enclosure Rating	Zink-plated steel, NEMA 1
Operating Pressure Range	0.05 to 12" WC (See ordering)	Dimensions	4" w x 6.13"h x 3.56"d, (10.2 x 15.6 x 9 cm)
Overpressure	(Burst) 13.85"WC (3.45 kPa)	Weight	1.2 lb (0.5 Kg)
Max Operating Pressure	(Proof) 13.85"WC (3.45 kPa)	Approvals	UL File #MH6213, CSA, FM
Operating Temperature	-40° to 180°F (-40° to 82°C)	Warranty	2 years
Operating Humidity	10 to 90% Non-condensing		



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DIMENSIONS

in
(cm)



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.

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).

ORDERING INFORMATION

MODEL

AFS-145*

AFS-222*

AFS-222-112

AFS-262*

AFS-262-112

AFS-405

DESCRIPTION

Differential pressure switch 0.05" to 12" W.C. (12.5 to 2989 Pa), 1/8" NPTF, SPDT

Differential pressure switch 0.05" to 12" W.C. (12.5 to 2989 Pa), 1/4" compression fittings, SPDT

Differential pressure switch 0.05" to 12" W.C. (12.5 to 2989 Pa), 1/4" barbed fittings, SPDT

Differential pressure switch 0.05" to 2" W.C. (12.5 to 498 Pa), 1/4" compression fittings, SPDT

Differential pressure switch 0.05" to 2" W.C. (12.5 to 498 Pa), 1/4" barbed fittings, SPDT

Differential pressure switch 0.05" to 12" W.C. (12.5 to 2989 Pa), gold contacts, SPDT

* C models Kele calibration available

RELATED PRODUCTS

21122

4" aluminum impact tube, 1/4" OD connection

21122-112

6" aluminum impact tube for 1/8" thru 1/4" ID flexible plastic tubing

60681

Static or total pressure sensing kit

A-301-K

Duct static pressure tip, 1/4" compression

A-302-K

Duct static pressure tip, 1/4" barb

A-308-K

Duct static pressure fitting, 1/4" barb

A-345-K

Flange mounting kit (1 required for each A-301-K or A-302-K)

T-101

1/4" OD black poly tubing, 1 coil, 250 ft (76 m)

PVG-1

Compact pressure or vacuum generator