



# PRESSURE

## CLEVELAND CONTROLS ADJUSTABLE SETPOINT-AIR DIFFERENTIAL PRESSURE SWITCHES W/MANUAL RESET AFS-MR SERIES

### DESCRIPTION

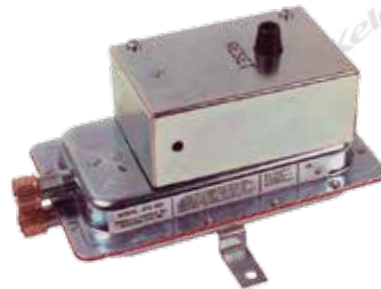
The **Cleveland Controls AFS-460 Series Adjustable Differential Pressure Switches** are general purpose adjustable differential pressure switches with a manual reset feature that requires operator intervention whenever actuated. They can be used to sense positive, negative, or differential air pressure in HVAC and Energy Management applications that require operator interface. The **AFS-460 Series** features a manual reset button to close the switch following actuation.

### FEATURES

- Manual reset (Model AFS-460)
- Adjustable set point
- For static or differential pressure
- 15A switch rating
- 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



AFS-MR Series

### SPECIFICATIONS

<b>Relay Type</b> AFS-460, 460-112 AFS-DSS AFS-460-136/137	SPST -NC (2) SPST -NC DPDT	<b>Max Operating Pressure</b>	(Proof) 13.85"WC (3.45 kPa)
<b>Relay Rating</b> AFS-460, 460-112, DSS AFS-460-136, 137	0.5 A @ 125 VDC; 15 A @ 277 VAC 0.5 A @ 24 VAC; 8 A @ 250 VAC	<b>Operating Temperature</b>	-40° to 180°F (-40° to 82°C)
<b>Setpoint (SP)</b>	Adjustable, 0.05 to 12.0" WC	<b>Operating Humidity</b>	10 to 90% Non-condensing
<b>Differential Progressive</b> AFS-460-DSS	0.02" to 0.8" WC per setpoint Lag operates progressively 5-35% of SP value after lead	<b>Wetted Parts</b>	Silicone
<b>Manual Reset</b>	All models	<b>Media Compatibility</b>	Inert dry air
<b>Sensor Type</b>	Silicone Diaphragm	<b>Process Connection</b>	1/8" FNPT, 1/4" compression, 1/4" barb (see ordering)
<b>Operating Pressure Range</b>	0.05 to 12" WC (See ordering)	<b>Wiring Terminations</b>	2 or 6 Terminals (see wiring)
<b>Overpressure</b>	(Burst) 13.85"WC (3.45 kPa)	<b>Mounting Vertical</b>	2 tabs w/Holes 0.19" (0.48 cm)
		<b>Enclosure Rating</b>	Zink-plated steel, NEMA 1
		<b>Dimensions</b>	4"W x 6.13"H x 3.56"D, (10.2 x 15.6 x 9 cm)
		<b>Weight</b>	1.2 lb (0.5 Kg)
		<b>Approvals</b>	UL File #MH6213
		<b>Warranty</b>	2 years

### 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 if moisture is an issue:

#### 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

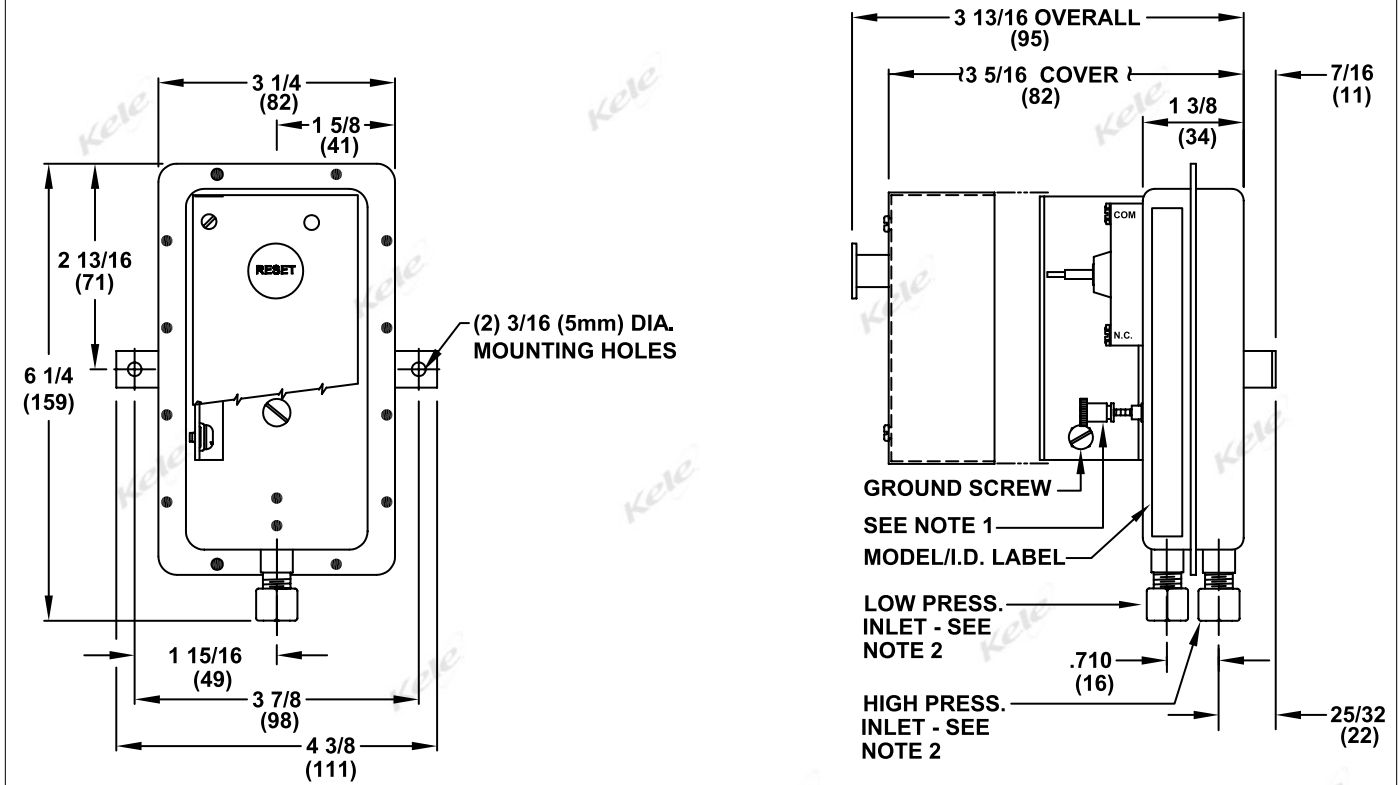
Connect the positive sample to (A); Connect the negative sample to (B).



## CLEVELAND CONTROLS ADJUSTABLE SETPOINT-AIR DIFFERENTIAL PRESSURE SWITCHES W/MANUAL RESET

### AFS-MR SERIES

#### DIMENSIONS



#### ORDERING INFORMATION

**MODEL**  
**AFS-460\***  
**AFS-460-136**  
**AFS-460-137**  
**AFS-460-DSS**

#### DESCRIPTION

Manual reset differential pressure switch 0.4" to 12" W.C. (99.3 to 2989 Pa), SPST  
 Manual reset differential pressure switch 0.4" to 12" W.C. (99.3 to 2989 Pa), 120 VAC, DPDT  
 Manual reset differential pressure switch 0.4" to 12" W.C. (99.3 to 2989 Pa), 24 VAC, DPDT  
 Manual reset differential pressure switch 1.25" to 12.0" W.C. (311 to 2989 Pa), 2 SPST switches  
 \* C models Kele calibration available

#### RELATED PRODUCTS

**T-101**  
**A-308-K**  
**60681**  
**A-302-K**  
**A-301-K**  
**A-345-K**  
**21122**  
**21122-112**  
**PVG-1**

1.4" OD Poly Tubing 250' spool  
 Duct static pressure fitting, 1/4" barb  
 Static or total pressure sensing kit  
 Duct static pressure tip, 1/4" barb  
 Duct static pressure tip, 1/4" compression  
 Flange mounting kit (1 required for each A-301-K or A-302-K)  
 6" aluminum impact tube, 1/4" OD connection  
 6" aluminum impact tube for 1/8" thru 1/4" ID flexible plastic tubing  
 Compact pressure or vacuum generator