

## TDIAP502730, TDIAP520830, & TDIAP521030 Airflow Switches

### SPECIFICATION DATA



### FEATURES

- Models available with compression or barb fittings
- SPDT contacts on automatic reset models
- SPST n. c. contacts on manual reset models
- Electrical switch enclosed in metal box with cover
- Reliable pneumatic operation
- UL and CSA Listed, FM approved
- Adjustable setpoint

### GENERAL

Airflow Differential Pressure Switches are used to sense positive, negative, or differential air pressure in HVAC systems. They provide high or low limit with alarm or high limit shutdown with manual reset.



## DESCRIPTION

Airflow Differential Pressure Switches are used to sense positive, negative, or differential air pressure in HVAC systems. They provide high or low limit with alarm or high limit shutdown with manual reset.

## SPECIFICATIONS

### Models:

- TDIAP502730: auto reset, compression fittings also available as 14004866-001 for panel mounting
- TDIAP520830: auto reset, barb fittings
- TDIAP521030: compression fittings, manual reset

### Setpoint:

TDIAP520830, TDIAP502730: Adjustable 0.05 to 12.0 in. wc (0.0018 to 2.98 kPa)  
 TDIAP521030: Adjustable 0.30 to 12.0 in. wc (0.0108 to 2.98 kPa)

### Connections:

#### Electric:

Screw terminals with cup washers  
 Knockout for 1/2-in. conduit

#### Pneumatic:

Compression fittings for 1/4-in. (6 mm) O.D. rigid or semirigid tubing  
 Barb fittings for 1/4-in. (6 mm) O.D. polyethylene tubing

### Switching Differential, Nonadjustable:

TDIAP520830, TDIAP502730: 0.02 ±0.01 in. wc (0.72 ±0.36 Pa) at minimum setpoint to approximately 0.80 in. wc (0.029 kPa) at maximum setpoint. Normally open contacts close on a pressure rise above setpoint and normally closed contacts open on a pressure rise above setpoint.

TDIAP521030: 50% of setpoint at minimum setting to 2.5 in. wc at maximum setpoint. Contact opens on pressure rise above setpoint and remain open until pressure drops below setpoint plus differential and reset button is fully depressed.

### Switching Action:

SPDT contacts on auto reset models. Normally open contacts close on a pressure rise above setpoint and normally closed contacts open on a pressure rise above setpoint.

SPST normally closed on manual reset model, contact opens on pressure rise above setpoint. Must be manually reset.

### Maximum Differential Pressure:

0.5 psi, 13.85 in. wc, or 3.44 kPa

### Electrical Rating:

TDIAP520830, TDIAP502730 and 14004866:

278 VA Pilot duty, 24V ac;  
 300 VA Pilot duty, 120 to 277V ac;  
 15A non-inductive to 277V ac maximum  
 10 mA at 5V dc (gold-flash contacts)

TDIAP521030:

20A resistive 125 to 277V ac  
 3/4 hp, 125V ac  
 1-1/2 hp, 250V ac  
 6000 cycles

### Listings:

UL and CSA Listed  
 FM approved

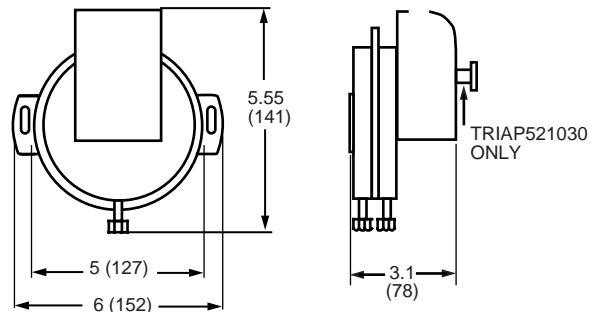
### Operating Temperature:

-40 to 190F (-40 to 88C)

### Mounting Position:

Diaphragm must be vertical with input connections down.

### Dimensions in Inches (Millimeters):



C6981

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