

## Sump Pump Pressure Switch

Sump pumps play a pivotal role in keeping buildings dry. To avoid flooding, it's crucial that a sump pump turns on at the correct time in order to flush water out. This action must be triggered by a switch. Presair utilizes diaphragm pressure switches to monitor rising water levels and prompt a sump pump to action. These switches sense pressure against the diaphragm to accurately read how much water is present in a system. As the water level rises in a sump basin, the pressure pushing against the diaphragm builds within the switch. Therefore, the switch is preset to actuate at a specific water level. When the specified water level is reached, it will generate a precise pressure in the basin. The diaphragm is calibrated to complete a circuit at that exact moment and initiate the pump.

Presair switches are small and accurate. This makes them the perfect fit for a congested sump basin. Other switching options can be cumbersome and difficult to maneuver. But Presair's durable, precise, miniature-sized pressure switches help keep basements dry and people happy.

### Pressure Switch Specifications

**CURRENT RATING** 21 Amps, 1HP @ 120VAC

**WORLD WIDE APPROVAL** UL & CUL Recognized.  
File #E80254

**MATERIAL** Acetal Body/Acetal Mechanism, EPDM Rubber Diaphragm. Other diaphragm materials available, contact us!

**PRESSURE RANGE** 0.25 inches of water to 125 Psi Rising

**OPERATING TEMPERATURE** -22°F to 150°F

See page 2 for more product details.

### Styles and Variations:

#### MINIATURE, FACTORY SET

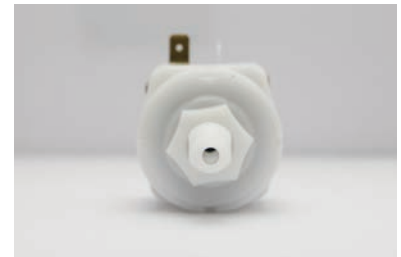


2.5" x 1.5" x 2"

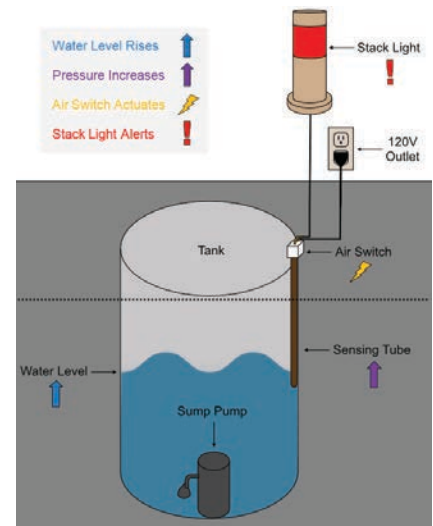
#### FIELD ADJUSTABLE



2" x 2"



Pressure Switch



Solution Diagram

## Factory Set Pressure and Vacuum Switch

Tinytrol pressure and vacuum switches provide versatile and convenient sensing. Their miniature size and variety of connection styles for simple implementation into any system. These switches allow for simple electrical on/off control over pressure (0.25-65 Psi) and vacuum (consult factory). As pressure rises or falls, one contact opens as the other closes. This provides a perfect solution for monitoring, controlling, and notifying. Tinytrol Miniature Pressure and Vacuum Switches are preset at the factory to actuate at your specific requirements.

### Presair air switches deliver critical benefits:

**SAFE:** Presair air switches deliver complete electrical isolation with zero voltage at the actuator to shock the user or spark an explosion.

**ECONOMICAL:** Presair air switching system costs are comparable or lower than conventional controls meeting the needs of original equipment manufacturers.

**ACCURATE:** All switches are 100% tested with a 100,000+ cycle life.

### General Specification:

**RATING:** 2 HP @ 240 VAC; 1HP @ 120 VAC  
21 AMPS @ 250 VAC  
Other ratings available up to 25 Amps.  
Gold contacts available.

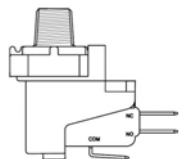
**APPROVAL:** UL Recognized, CUL Recognized. File #E80254

**MATERIAL:** Acetal Body/Acetal Mechanism  
Silicone Rubber Diaphragm  
Other material available, give us a call for more information.

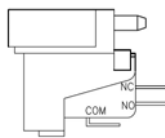
**FACTORY SET RANGE:** Pressure switches have a preset range of 0.25 psi to 65 psi.  
Please consult factory for vacuum.

**OPERATING TEMPERATURE:** -22°F to 150°F

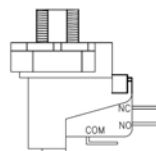
### BODY STYLE CONNECTIONS:



1/8" NPT, Center Air  
Spout - TN Style



Radial Mount, Side  
Air Spout - TR Style



9/16" - 18 UNF, Center  
Air Spout - TV Style



TRV111E-20WR - Radial Mount with  
side spout  
2" x 1.5"



TVP211E-2PR - Threaded Mount with  
center spout  
2" x 2"

PRESAIR SWITCHES ARE DESIGNED & MANUFACTURED IN ALTOONA, WI, U.S.A.

## Factory Set Pressure & Vacuum Switches

Select from each column to configure your part number:

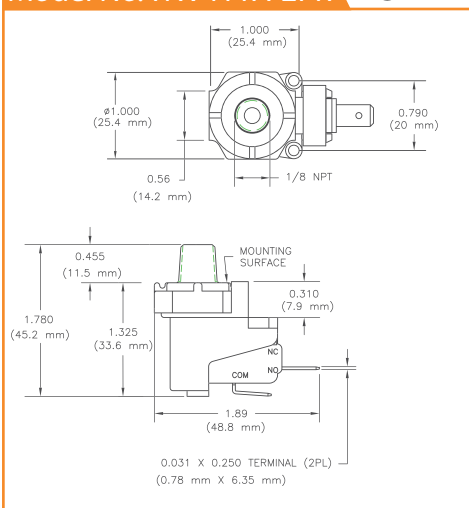
MOUNTING OPTIONS	ACTION	CONTACT FIGURATION	ELECTRICAL RATINGS	SPECIAL Multiple options available.
<b>(N)</b> 1/8 NPT, Center Air Spout (Fig. A)	<b>(P)</b> Pressure	<b>(1)</b> SPDT	<b>(11)</b> 21 Amp, 1 hp @ 125 VAC Standard	<b>(A)</b> 1/2" Mounting Thread w/ Flats
<b>(R)</b> Radial Mount, Side Air Spout (Fig. B)		<b>(2)</b> DPDT	<b>(16)</b> 5 Amp, Low Force (17 g) Long Distance Tubing (100 feet) Applications	<b>(B)</b> 9/16" - 18UNF Mounting Thread
<b>(V)</b> Threaded Mount, Center Air Spout (Fig. C) *Not available for vacuum applications	<b>(V)</b> Vacuum	<b>(4)</b> SPST (Normally Open)	<b>(17)</b> 5 Amp, Regular Force (36 g) Long Distance Tubing (50 feet) Applications	<b>(E)</b> EPDM Diaphragm
			<b>(25)</b> 25 Amp @ 240 VAC	<b>(K)</b> Black Bottom Housing

\*Include the desired setpoint at the end of the part number, Pressure Rising (PR), Pressure Falling (PF), Water Rising (WR), or Water Falling (WF).

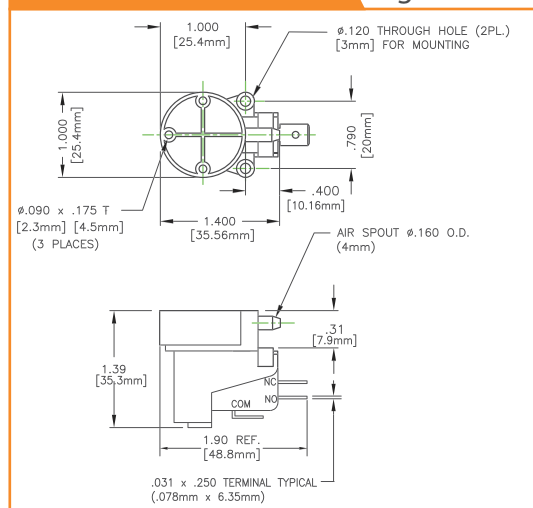
T **(V)** — **(P)** — **(1)** — **(11)** — **(A)** → **TVP111A-20PR\***

\*Many custom options available, give us a call for more information.

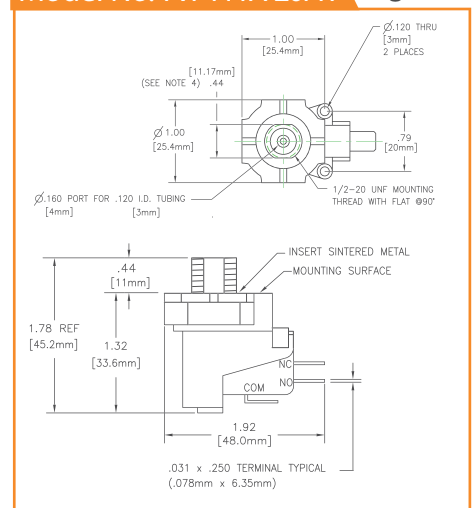
Model No. TNV411A-2PR Fig. A



Model No. TRP111A-10PR Fig. B



Model No. TVP111A-20PR Fig. C



## Adjustable Pressure & Vacuum Switches

These switches allow for simple electrical on/off control over pressures and vacuums. As pressure goes up, one contact opens as the other closes. This provides a perfect solution for monitoring, controlling, and notifying. All are field adjustable but can be preset at the factory if preferred. Dual switches are also available, factory set to operate two separate microswitches at different pressure or vacuum settings. These switches come in multiple body styles, providing the necessary versatility for air hose connections.

### Presair adjustable switches deliver critical benefits:

**SAFE:** Presair switches deliver complete electrical isolation with zero voltage at the actuator to shock the user or spark an explosion.

**ECONOMICAL:** Presair's switching system costs are comparable or lower than digital controls meeting the needs of original equipment manufacturers.

**ACCURATE:** All switches are 100% tested to meet 100,000+ cycle life.

### General Specification:

**RATING:** 1 HP @ 125 VAC; 2 HP @ 250 VAC

21 AMPS @ 250 VAC

Other ratings available up to 25 Amps.

Gold contacts available.

**APPROVAL:** UL Recognized, CUL Recognized. File #E80254

**MATERIAL:** Acetal Body/Acetal Mechanism

Nitrile Rubber Diaphragm

Other material available, give us a call for more information.

**SETTING:** Field adjustable or Factory Set

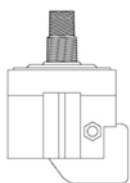
Pressure switch is adjustable with hex head set screw at the

center of the microswitch. Vacuum switch is adjustable with

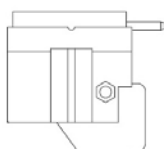
Phillips head screw on the microswitch carrier.

**OPERATING TEMPERATURE:** -22 to 150 degrees Fahrenheit

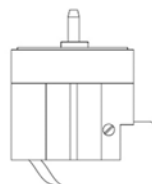
**BODY STYLE CONNECTIONS:** 9/16-18 Thread with  
Center Air Spout



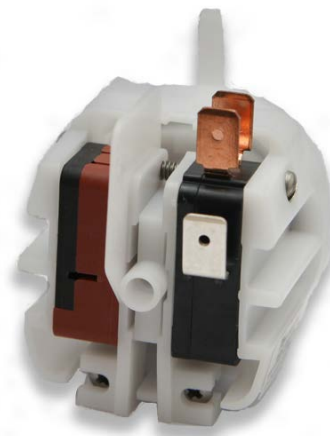
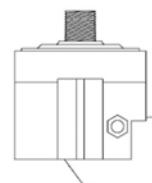
Radial Mount with  
Side Air Spout



Radial Mount with  
Center Air Spout



1/8" NPT with  
Center Air Spout



PR11120A- Radial Mount with Side Spout  
1.75"x1.5"x2"  
SPDT with Dummy Switch



PM21120A - 9/16-18 Thread with Center Spout  
2.5"x1.5"x2"  
DPDT = 2 SPDT Switches

PRESAIR SWITCHES ARE DESIGNED & MANUFACTURED IN ALTOONA, WI, U.S.A.



## Adjustable Pressure & Vacuum Switches

Select from each column to configure your part number:

SWITCH TYPE	P Pressure			V Vacuum		
MOUNTING OPTIONS	M 1/8" NPT- 9/16" Thread, Center Air Spout (Fig. A)	R Radial Mount, Side Air Spout (Fig. B)	T 9/16" Thread Center Air Spout(Fig. C)	C Center Air Spout	S 1/8" NPT Only	Q 1/4" NPT Only
CONTACT FIGURATION	1 SPDT		2 DPDT		4 SPST (Normally Open)	
ELECTRICAL RATINGS	03 5 amps @ 240V		05 16 amps @ 240V		11 21 amps, 1 hp @ 120V Standard	
PRESSURE RANGE (P Type)	03 2.5-7 inches of water	06 5-35 inches of water	20 1-5 Psi	50 9-18 Psi	80 35-65 Psi	
	05 6-18 inches of water	10 20-50 inches of water	30 2.5-6 Psi	60 15-28 Psi	90 50-100 Psi	
			40 4-11 Psi	70 25-40 Psi	95 75-125 Psi	
VACUUM RANGE (V Type)	03 2.5-7 inches of water	10 13-25 inches of water	20 35-80 inches of water		20 135-300 inches of water	
	06 6-16 inches of water	15 20-40 inches of water	30 75-150 inches of water			
SPECIAL Multiple options available.	A Nitrile Diaphragm (Standard)	C Air Bleed	E EPDM Diaphragm	S Silicone Diaphragm	Z Stepped Nipple for Microtubing	

(P)

(M)

(1)

(11)

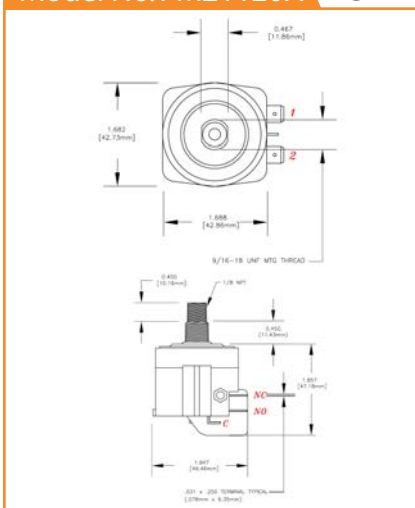
(20)

(A)

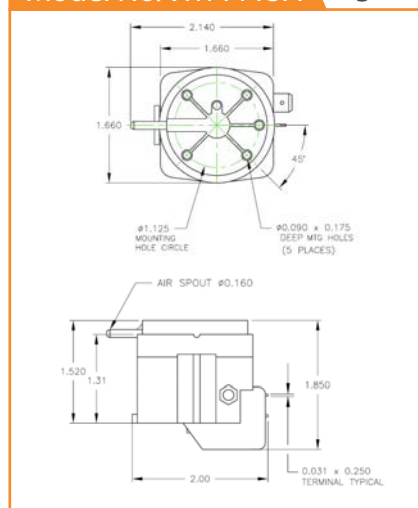
\*Many custom options available, give us a call for more information.

PM11120A

Model No. PM21120A Fig. A



Model No. VR11115A Fig. B



Model No. PT11130A Fig. C

