

Product Selection Guide

Presair Air Switches, Air Switch Controls, Pressure Switches, Vacuum Switches, and Hand Actuators and Foot Pedals are considered the most advanced and reliable in their class.

Presair's Air Switching System

SHOCKPROOF, WATERPROOF & EXPLOSION PROOF

The Presair system uses an air bellows actuator joined by tubing to an air switch contained within the equipment or appliance to be switched. Pushing the actuator creates enough pressure to operate the air switch which safely controls the equipment. There is complete electrical isolation with no voltage - low or high - to worry about at the point of actuation. No external compressed air is required.

SAFE AND ECONOMICAL - There is no voltage at the actuator to shock the user, spark an explosion, or cause a shock.

The cost of Presair products is comparable or lower than conventional controls.

QUICK INSTALLATION - No plugs, sockets, or cable ends.

WORLDWIDE APPROVAL - Air switches help your equipment get worldwide approval - UL and CUL Recognized.

The safety of Presair switching has worldwide recognition. Air switches can be fitted with various agency approved microswitches.

AVOID ELECTRICAL INTERFERENCE - Air switches eliminate spurious switching signals which can be picked up by cables used on low power switching.

Air Actuators are connected to Air Switches with air tubing. The actuators may be in the form of pushbuttons or foot pedals.

Pressure and Vacuum Switches

Presair's pressure and vacuum switches span the range of pressure from 0.25 inches of water gauge to 125 psig in four basic models, many different pressure connections and mountings (i.e.1/8" NPT), and electrical ratings up to 25 amps. All pressure and vacuum switches are UL and CUL recognized with a 100,000 life cyle.

Presair Controls

MODEL	SWITCH TYPE
CP	Tinytrol Switches "T" Alternate & Momentary Air Switches, Factory Set Pressure & Vacuum Switches
	Adjustable Switches Adjustable Pressure (P) or Vacuum (V) Switches
C	Low Pressure Switch "D" Low Force Pressure, Vacuum or Differential Pressure Switches
	PCB Mount Switches "C" Air, Pressure, Vacuum or Differential Pressure PCB Mount Switches
	Magictrol Switches "M" Three or Four Function Sequencing Air Switch
	Push Button Hand Actuators "B" Hard or Soft Hand Air Actuators
	Foot Pedal Actuators Hard or Soft Foot Pedal Air Actuators

Photographs above illustrate an example for each category.

GSATIShock proof • waterproof • explosion proof

Product Features

Select from each column to configure your switch type:

	TINYTROL SWITCHES	TINYTROL PRESSURE/ VACUUM SWITCHES	STANDARD PRESSURE/ VACUUM SWITCHES	LOW SENSING SWITCHES	PCB MOUNT SWITCHES	MAGICTROL AIR SWITCHES
SINGLE FUNCTION (SPST; N.O., N.C.)	•	•	•	•	•	
TWO FUNCTIONS (DPDT; 2 N.O., 2 N.C.)	•	•	•			
THREE OR FOUR FUCTIONS (3PDT; 3 N.O., 3 N.C.)						•
MOMENTARY ACTION	•	•	•	•	•	SEQUENCING
ALTERNATE LATCHING	•					SEQUENCING
CURRENT RATING	25 AMPS	25 AMPS	25 AMPS	1 AMP	1 AMP	25 AMPS
FIELD ADJUSTABLE	PRESET	PRESET	•	•	PRESET	PRESET
SENSES BELOW 1 Psi	•	•	•	•	•	•
SENSES 50 Psi		•	•		•	
SENSES 100 Psi			•			

• PRESAIR SWITCHES ARE MADE IN THE U.S.A.

• UL & CUL RECOGNIZED • CAN REACH TUBING DISTANCES OF UP TO 100FT



Presair's Air Actuators:

- OPERATE BY HAND OR FOOT
- WATERPROOF, SHOCKPROOF AND EXPLOSION PROOF
- CREATE A MINIMUM OF 1.5 PSIG WITH 10 FEET OF TUBING
- HARD AIR ACTUATORS HAVE AN INTERNAL BELLOW WHICH IS PROTECTED BY A HARD SHELL IDEAL FOR HARSH ENVIRONMENTS.

PRSAIL shock proof • waterproof • explosion proof

Tinytrol[®] Miniature Air Switch

Presair air switches are single function controls that provide safe on/off actuation of electrical devices from remote locations such as motors, lights, pumps, or other applications. Presair air switches are designed to use an air bellow actuator joined by tubing to an air switch contained within the equipment. Pushing the actuator creates enough pressure to operate the air switch which safely controls the equipment. There is complete electrical isolation with no voltage to worry about at the point of actuation.

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.
- ACTION: Alternate Action (Push Remain On/Push Off) Momentary (Push On/Release Off) All units available with an air bleed for sensitive environments such as, low force applications. Contact us for more information.

OPERATING TEMPERATURE: -22° F to 150° F

AIR TUBE DISTANCE: Standard maximum distance between air actuators and air switch:

Alternate Action: 20 feet Momentary Action: 35 feet Distances of 100 feet available for both alternate and momentary action. Model of air actuator and tubing size affect maximum distance. Contact us for more informaiton.



TRA111A - Radial Mount with side spout 2"x 1.5"



TVM211A - Threaded Mount with center spout 2" x 2"

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

PRATIshock proof • waterproof • explosion proof

Tinytrol[®] Miniature Air Switch

Select from each column to configure your part number:

Μ

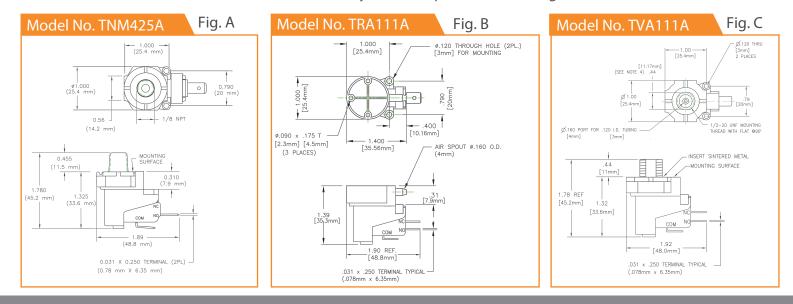
Τt

MOUNTING OPTIONS	ACTION	CONTACT FIGURATION	ELECTRICAL RATINGS	SPECIAL Multiple options available.	
N ¹ / ₈ NPT Center			11) 21 Amp,	A ½" Mounting Thread w/ Flats	
Air Spout (Fig. A)	Momentary	1 SPDT	1 hp @ 125VAC Standard	B %16" - 18UNF Mounting Thread	
			16) 5 Amp, Low Force (17g)	C Air Bleed	
Radial Mount, Side Air Spout (Fig. B)		2 DPDT	Low Force (179) Long Distance Tubing (100 feet) Applications	D One Latching and One Momentary Switch	
(Alternate		17 5 Amp, Regular Force (36g)	E EPDM Diaphragm	
(V) Threaded	Latching	4 SPST	Long Distance Tubing (50 feet) Applications	K Black Bottom Housing	
Mount,Center Air Spout (Fig. C)		(Normally Open)	25) 25 Amp @ 240VAC	Z Stepped Nipple, ¹ / ₁₆ " ID Microtube ⁹ / ₁₆ " Diameter Thread	

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

Α

TVM111A



HASSIN shock proof • waterproof • explosion proof

Magictrol Sequencing Air Switches

The Magictrol Air Switch is used to sequentially switch up to four separate pieces of equipment. Each time an air pulse is applied, a stepping cam is rotated through three or four positions, actuating a combination of two or three microswitches.

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: 2HP @ 240VAC, 1HP @ 120VAC 21 AMPS to 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.

OPERATING TEMPERATURE: -22°F to 150°F

AIR TUBING DISTANCE: The Magictrol Four Function switches can generally be used up to 15 feet away from Hand Actuator or Foot Pedal. For distances up to 100 feet away from actuator use the Magictrol with Solenoid option.

> Solenoid options has the same electrical specifications and sequences as air actuated Magictrol. Solenoid coil is 120 VAC, 80 watts. Solenoid may be actuated by any momentary switch.



MTB311A - Magictrol 4 Function Switch 2.5" x 2" x 1.5"



MSA325A - Magictrol Switch with Solenoid 3.75" x 1.5" x 1.5"

SWITCHING CAM OPTIONS: Other sequences available, please contact us with your application specifications.

3 Function Switch - Black Cam

 MTK311A, MCK311A, MRK311A
 MTK211A, MCK211A, MRK211A

 PUSH
 SWITCH
 SWITCH
 SWITCH

 1
 2
 3

 2
 4
 4

 3
 4
 4
 4 Function Switch - Green Cam



4 Function	Switch	-	Blue	Cam

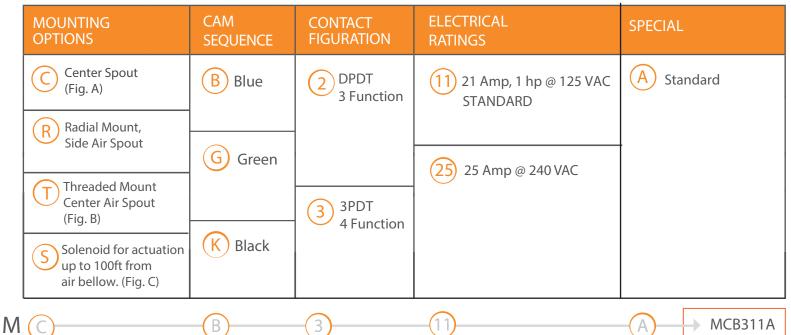
	MTB3			
PUSH	switch 1			
1	7.	-	-	NC C NO
2	•	ړ.	٦	NC C NO
3	٠.	-	٢.	NC C NO
4	••	••	•••	NC C NO

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

FRAN shock proof • waterproof • explosion proof

Magictrol® Three or Four Function Air Switches

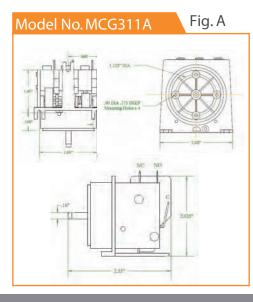
Select from each column to configure your part number:

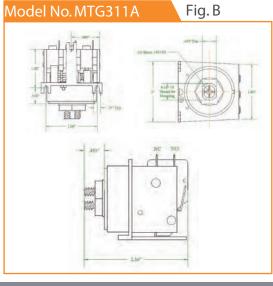


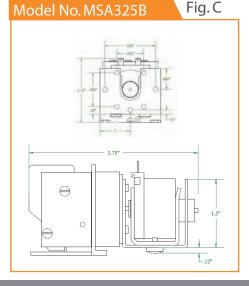
*Many custom options available, give us a call for more information.

The chart illustrates a common sequence. Many other variations are possible using Presair's three function switches for many types of equipment.

2 SPEED PUMP	PUSH 1	PUSH 2	PUSH 3
Low Speed	OFF	ON	OFF
High Speed	OFF	OFF	ON







PRSATIShock proof • waterproof • explosion proof

Hand Air Actuators

Hard Push Button Actuators

All hard push buttons have a sealed internal air bellow to prevent water from entering the air tube that connects the air button to the air switch. Hard push buttons have a diameter ranging from 0.35 inches to 2.5 inches and thread mount or push fit options available.

Hard buttons are available in the following standard colors and finishes: White, Black, and Chrome. Other options available upon request. Please contact us for more information.



Soft Air Bellow Actuators

Presair's push bellow hand actuators are made from a flexible UV resistant PVC. Bellows range in size from 1 inch to 2.8 inches, with multiple stem lengths available. Air bellow actuators are tested for more than 1 million pushes.

All air bellows are available in black, white or gray with a plain top or recessed for custom OEM decals. Other colors are available, please contact us for more information.



*Pictures shown illustrate our common actuators. Other styles available, please contact us.



Foot Pedal Air Actuators

Pneumatic foot pedals contain an internal bellow when pressed, sends a pulse of air through a tube to our air switch which may be momentary action, alternate latching or sequencing. Presair's foot pedals are shockproof, explosion proof and waterproof.

Hard Foot Pedals

Hard foot pedals are made from glass filled polypropylene. Our standard tubing is 1/8" I.D., 1/4" O.D., 10 feet. Other tubing sizes available, please contact us.



Soft Foot Bellows

These low profile soft foot bellows work with the extensive air switch range creating a great volume to actuate an air switch from long distances. Soft foot bellows are made from a flexible PVC, with standard tubing size of 1/8" I.D., 1/4" O.D. or 5/16" O.D. and 10 feet. Other tubing sizes available, please contact us.





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:

- 1 HP @ 125 VAC; 2 HP @ 250 VAC RATING: 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.
- Field adjustable or Factory Set SETTING: 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



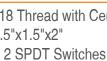
Radial Mount with Side Air Spout





1/8" NPT with





Center Air Spout



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

A Division of Senasys | Email: info@senasys.com | Phone: (715) 831-6353 | Fax: (419) 818-0897 704 Bartlett Avenue | Altoona, WI 54720



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

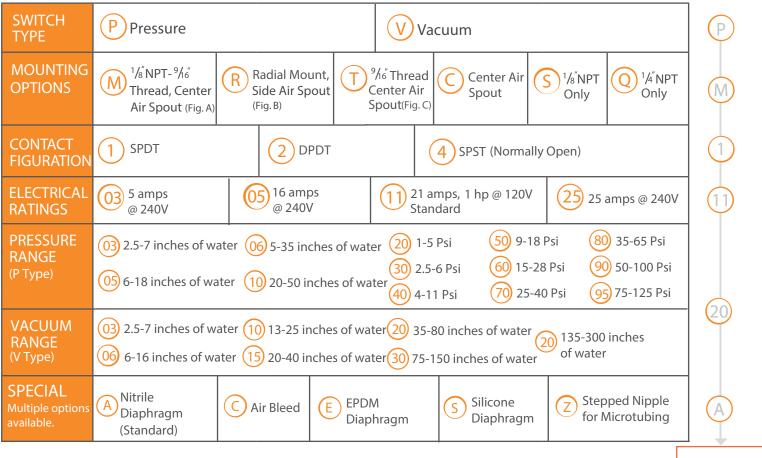


PM21120A - 9/16-18 Thread with Center Spout 2.5"x1.5"x2" DPDT = 2 SPDT Switches

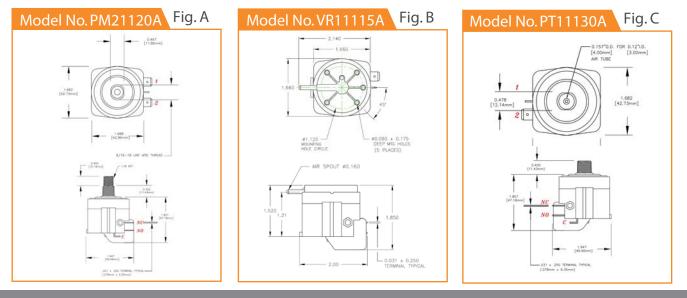
PRST shock proof • waterproof • explosion proof

Adjustable Pressure & Vacuum Switches

Select from each column to configure your part number:



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



HRSAIL shock proof • waterproof • explosion proof

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:

- 2 HP @ 240 VAC; 1HP @ 120 VAC RATING: 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.









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

Radial Mount, Side Air Spout - TR Style

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





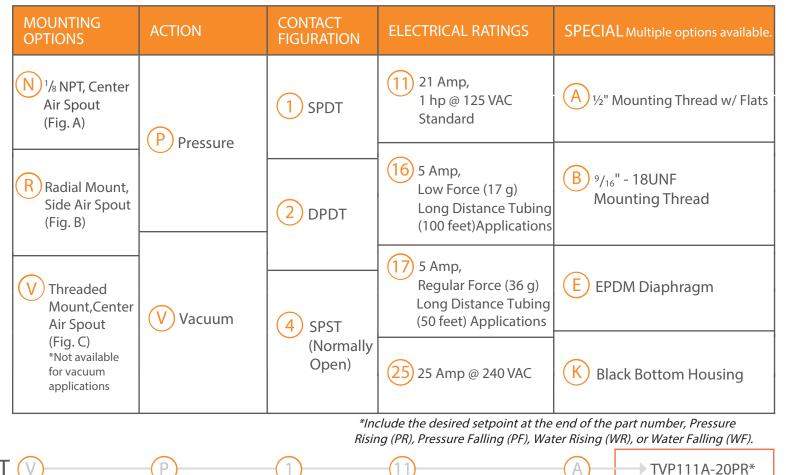
TVP211E-2PR - Threaded Mount with center spout 2" x 2"

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

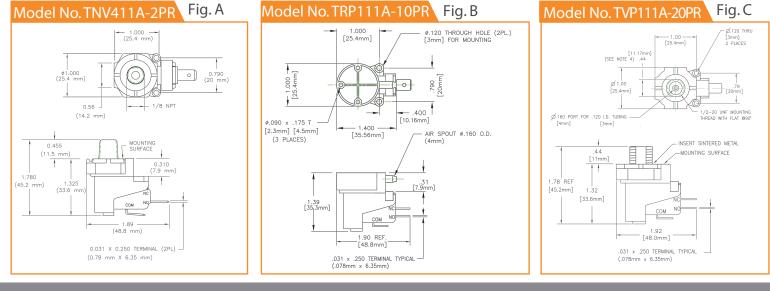
PRSATIshock proof • waterproof • explosion proof

Factory Set Pressure & Vacuum Switches

Select from each column to configure your part number:



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



A Division of Senasys

Email: info@senasys.com | Phone: (715) 831-6353 704 Bartlett Avenue | Altoona, WI 54720

Fax: (419) 818-0897

PRSAILshock proof • waterproof • explosion proof

Precise, Adjustable Low Pressure Switch

Sensitive differential switches are the perfect fit for those needing a sensitive, adjustable switch at an affordable price. These switches sense very low pressures such as less than an inch of water (Range = 0.25 inches of water to 35 inches of water). For a frame of reference, a trumpet player blows 55 inches of water (or 2 Psi) on average, so these switches are very sensitive. They can be setup to sense either pressure, vacuum, or the difference between two sources of pressure or vacuum. The switches are also adjustable and can be fine-tuned on the fly by calibrating the set screw. The switches can respond to rapid pulsing and their gold-plated silver contacts will handle low level switching currents.

Connections:

NORMALLY OPEN CONTACTS

Connect the pressure source to inlet port B and set the adjusting screw to the desired set point. Turning the adjusting screw clockwise narrows the gap between contacts and decreases the set point.

NORMALLY CLOSED CONTACTS

Connect the pressure source to inlet port A and monitor continuity across the terminals. Slowly turn the adjusting screw clockwise, narrowing the gap between contacts until they are closed.

General Specification:

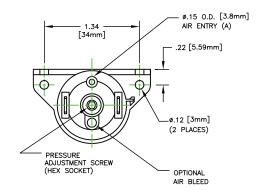
APPROVAL: UL Recognized, CUL Recognized for 100,000 cycles. File #E80254

- MATERIAL: Acetal Body/Acetal Mechanism EPDM Diaphragm - Other material available, call us for more information.
- OPERATING TEMPERATURE: -22°F to 150°F
- CONSTRUCTION: Terminals are molded into the plastic body for maximum strength and seating. Upper body and lower body are welded together using microprocessor controlled ultrasonic welding equipment to insure permanent leak proof bonding.
- **TESTING:** All switches are 100% tested at high and low range points and set points. Units are 100% tested at proof pressure.
- SETTING: Field adjustable or Factory Set options available. Contact us!





Sensitive Differential Switch 1.75" x 1.25" x 1"



	ESSURE R ES WATER	ANGE R, GAUGE)	STAN ELECTRICA	DARD AL RATING	REPEAT ACCURACY	CONTACT RESISTANCE	PROOF PRESSURE	PART NUMBER
PRESSURE	VACUUM	DIFFERENTIAL	MAX. RESISTIVE	MIN. RESISTIVE	CONSTANT TEMPERATURE		(INCHES OF WATER)	
0.25-15	0.25-15	0.25-15	750 ma 250VAC	5 ma 3VDC	+/-4%	0.04 OHMS	250	D1000E
0.25-35	0.25-35	0.25-35	1 amp 250VAC	5 ma 3 VDC	+/-3%	0.02 OHMS	350	D1001E

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



Printed Circuit Board Mount Switches

These versatile switches are a great choice for many applications due to their small size and variety of connection styles. Although these switches are built to connect to a printed circuit board, they can also be retrofitted for nearly any application by connecting wire leads. These switches can sense a pressure ranging from 6 inches of water all the way up to 65 PSI. For a frame of reference, a trumpet player blows 55 inches of water (or 2 PSI) on average, so these switches have a broad range. They can also be used to sense a vacuum ranging between 6 inches of water to 65 inches of water. Therefore, these miniature single pole and double pole switches are used as pressure, vacuum, or differential pressure switches where moderate accuracy is sufficient.

Presair 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:

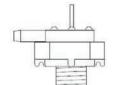
RATING: 1 amp resistive 250 VAC

Ratings are dependent on actuation pressure and must be derated at lower pressures.

- APPROVAL: UL Recognized, CUL Recognized. File #E80254
- MATERIAL: Lower body: Rynite w/ pin terminals molded Upper body: Acetal Diaphram material is dependent on application.
- PRESSURE RANGE: When used as a pressure or vacuum switch the actuation point must be factory set. Pressure: 6 inches of water - 65 Psi Vacuum: 6 -200 inches of water

OPERATING TEMPERATURE: 40° - 150° Fahrenheit

BODY STYLE CONNECTIONS: 1/8" NPT with Center Air Spout



Center Air Spout



9/16-18 Thread with Low Profile Radial Mount Radial Mount with

with Side Air Spout

Side Air Spouts

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

A Division of Senasys | Email: info@senasys.com | Phone: (715) 831-6353 | Fax: (419) 818-0897 704 Bartlett Avenue | Altoona, WI 54720



CSPSSGA - PC Mount Switch 1"x1"x1.5"



CNPSSGA - PC Mount Switch 1"x1"x1.5" **PGSATIShock** proof • waterproof • explosion proof

Printed Circuit Board Switch

Select from each column to configure your part number:



*Many custom options available, such as wire leads. Give us a call for more information.

