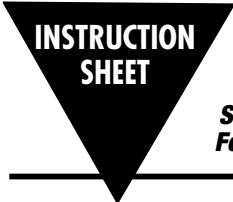
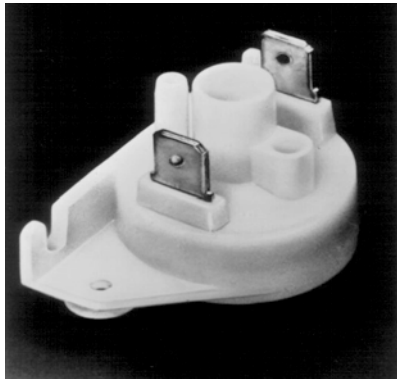




**PSW20 Series**  
**Pressure, vacuum or differential pressure switches**



**M4067-0504**

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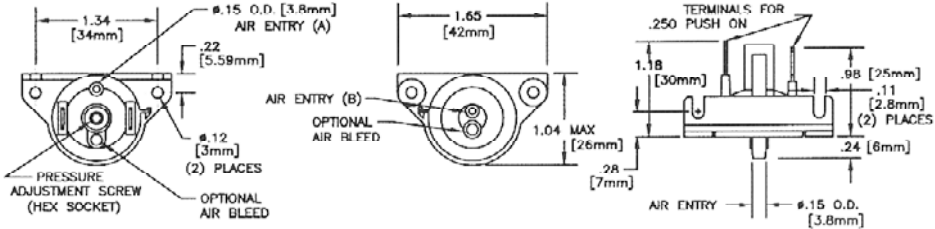
**Installation Instructions for OMEGA PSW20 Series: Pressure, Vacuum and Differential Pressure Switches.**

**General**

The PSW20 series is single pole switch that can be used as a pressure or vacuum switch (from 0.40 in W. C. to 20 inches W. C.) or as a pressure differential switch. The switch can respond to rapid pulsing and the gold plated silver contacts will handle low level switching currents.

**Mounting Instructions**

Switch may be mounted in horizontal or vertical position, through 0.12" (3mm) holes on 1.34" (34mm) centerline, with suitable clearances to accommodate 0.15" I.D tubing and electrical connectors – see diagram for dimensions.



**Electrical, Pneumatic and Material/Mechanical Specification**

| Part Number | Pressure range (inches water, gauge) |        |              |
|-------------|--------------------------------------|--------|--------------|
|             | Pressure                             | Vacuum | Differential |
| PSW20A      | 0.4-15                               | 0.4-15 | .04-15       |
| PSW20B      | 1-20                                 | 1-20   | 1-20         |

| Part Number | Standard Electrical rating |               | Repeat Accuracy      | Contact Resistance (ohms) |
|-------------|----------------------------|---------------|----------------------|---------------------------|
|             | Max. Resistive             | Min Resistive | Constant Temperature |                           |
| PSW20A      | 750ma<br>250VAC            | 5 ma<br>3 VDC | +/- 4%               | 0.04                      |
| PSW20B      | 1 amp<br>250<br>VAC        | 5 ma<br>3 VDC | +/- 3%               | 0.02                      |

|                       |  |
|-----------------------|--|
| Body                  | Acetal   |
| Diaphragm             | EPDM is standard; Nitrile available. NOTE: EPDM should not be used in petroleum applications |
| Contacts              | Gold plated silver   |
| Springs               | Plated phosphor bronze   |
| Terminals             | Plated copper or brass   |
| Adjusting screw       | Stainless steel or zinc plated SS  |
| Weight                | 9 grams (0.3oz)  |
| Operating temperature | -30 C to +65 C (-23F to 149F)  |
| Listings              | UL recognized for 100,000 operations<br>CSA certified  |

## **Connections and Adjustment**

### **Pressure Switching – Normally Open Contacts**

Connect the pressure source to inlet port B (see diagram) and set the adjusting screw to the desired pressure. Turning the screw clockwise narrows the gap between contacts and decreases the pressure set point. Turning the pressure adjusting screw counterclockwise increases the set point. Note: the media entering the diaphragm through Port B is separated from the electrical contacts by the diaphragm.

### **Pressure Switching – Normally Closed Contacts**

Connect the pressure source to Port A and monitor continuity across the terminals. Slowly turn the adjusting screw clockwise, narrowing the gap between contacts until the contacts are closed. Apply the set point pressure which will open the contacts. Continue to turn the adjusting screw clockwise until the contacts make and break at the desired point.

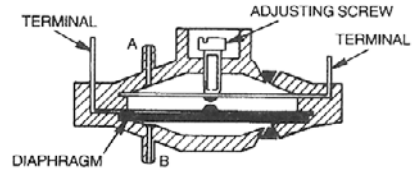
### **Vacuum Switching**

Repeat the above procedure using Port A for Normally Open Contacts and Port B for Normally Closed Contacts.

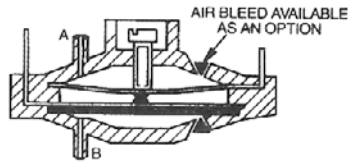
## Media in Contact with Electrical Contacts

Note that the pressure media entering through Port A is in direct contact with the electrical contacts in the switch, whereas the pressure media entering through Port B is separated from the electrical contacts by the diaphragm.

Note: The EPDM diaphragm should not be used with petroleum products. Specify Nitrile for these applications.



CONTACTS SET NORMALLY OPEN  
PORT A: VACUUM N.O.  
PORT B: PRESSURE N.O.



CONTACTS SET NORMALLY CLOSED  
PORT A: PRESSURE N.C.  
PORT B: VACUUM N.C.



|  |  |
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