Clippard air actuated electrical switches enable the easy use of pressure to remotely pilot electrical switches.

The pressure actuator has a spring biased piston with a U-cup seal that requires pressure as low as 5 psig to actuate either a sub-miniature or miniature electrical switch. The pressure activated switch may be supplied in four different pressure ranges. To actuate the electric switch, the pressure must meet or exceed the actuation pressure. To deactuate the switch, the pressure must be at or lower than the deactuation pressure. See reverse side for specific values.

The electrical switch is available in both sub-miniature (SAS models) and miniature (MAS models) sizes, with a variety of current ratings and terminal styles. Choosing either the SAS or MAS model depends on the current requirement of the output device being operated, size limitations, and desired terminal configuration. (See the back of this bulletin for more information.)

On the sub-miniature models only, the electrical switch is actuated by a lever arm which may be used as a manual override.

Mechanically-operated models are also available which may be used with any Clippard air pilot or push button actuator.

The pneumatically actuated models have a 5/8-32 external thread and the mechanically actuated models have a 15/32-32 external thread for mounting. All models are supplied with a switch, or can be specified without a switch for use with the customer’s existing switch. (Actuation pressures may vary slightly depending upon the switch used.)

### Specifications

<table>
<thead>
<tr>
<th>Type</th>
<th>SAS - Sub-miniature air switch utilizes a standard sub-miniature single pole double throw (SPDT) electrical switch certified UL and CSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAS - Miniature air switch utilizes a standard miniature single pole double throw (SPDT) electrical switch certified UL, CSA, SEMKO, and VDE</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Medium</th>
<th>Air</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inlet Pressure</td>
<td>5 - 150 psig</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>32˚ to 230˚F</td>
</tr>
<tr>
<td>Current Rating</td>
<td>3 thru 10 Amps AC and DC voltages</td>
</tr>
<tr>
<td>Terminals</td>
<td>- 110, 187 Series Q.C. - Screw terminals</td>
</tr>
<tr>
<td>Pilot Port</td>
<td>#10-32, 1/8 NPT, M5</td>
</tr>
<tr>
<td>Mounting</td>
<td>External thread and nut for panel, bracket, or bulkhead mounting. 5/8-32 thread (pressure actuated) 15/32-32 thread (mechanically actuated)</td>
</tr>
</tbody>
</table>

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Features

- Simple compact design
- Easy interface between pneumatic and electrical devices
- Versatile, low cost unit
- Quick and easy to mount in a circuit or on a machine
- Bright nickel plated brass housing, Delrin® piston, Buna-N U-cup
- Stainless steel spring for long life and corrosion resistance
- Air connections with standard 10-32, 1/8 NPT or M5 fittings
- Fits most makes of electrical switches in both the sub-miniature and miniature sizes
- Available in a wide range of actuation pressures, current ratings and terminal styles
- Precision machined parts
- Short stroke for long life of actuator
- Uses removable, replaceable standard UL approved switches

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## Part Numbering System

### Design Series

MAS - Miniature Air Switch  
SAS - Sub-Miniature Air Switch

### Switch Current Rating:

**SAS**
- A - 5A @ 125/250 VAC  
  3A @ 30 VDC/ 0.1A 60 VDC  
- X - No Switch

**MAS**
- B - 3A @ 125/250 VAC  
  3A @ 30 VDC  
- C - 10A @ 125/250 VAC  
  5A @ 50 VDC  
- X - No Switch

### Switch Terminals:

**SAS**
- 0 - No Switch  
  1 - 110 Series Q.C.  
- MAS
  - 0 - No Switch  
  - 2 - 187 Series Q.C.  
  - 3 - Screw Terminals

### Actuation Pressure*

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>06</td>
<td>6 psig</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>20 psig</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>41 psig</td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>65 psig</td>
<td></td>
</tr>
<tr>
<td>MN</td>
<td>Manual</td>
<td></td>
</tr>
</tbody>
</table>

### Deactuation Pressure*

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>06</td>
<td>5 psig</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>18 psig</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>36 psig</td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>58 psig</td>
<td></td>
</tr>
<tr>
<td>MN</td>
<td>Manual</td>
<td></td>
</tr>
</tbody>
</table>

* Nominal value +/- 12% or 1 psig, whichever is greater when used with Clippard switches

### Inlet Port: Blank
- 10-32 thd
- F - 1/8 NPT female
- P - 1/8 NPT male
- M5 - M5 x 0.8 thd.

### Applications

#### Pneumatic Input Signals

- Circuit
- Toggle
- Push Button
- Limit Valve

#### Output Devices

- Light
- Solenoid Valve
- MAS/SAS
- Small Motor
- Relay or Motor Starter

This diagram shows some of the output devices that can be controlled using the MAS/SAS actuator.