And Or Not

**AND**

![AND Diagram](image1)

**Input pressure is needed at ports “A” AND “B” to produce output at port “C”**

**PART# 59111**

**OR**

![OR Diagram](image2)

**Input pressure is needed at ports “A” OR “B” to produce output at port “C”**

**PART# 59010**

**NOT**

![NOT Diagram](image3)

**Output at “C” occurs when the supply pressure is connected to “B” and no pressure is at “A”. Input at “A” stops output at “C”**

**PART# 59112**

**Set-Reset Gate Memory**

**Set-Reset Gate**

![Set-Reset Gate Diagram](image4)

**Works with MEMORY element (part # 59113) to perform a memory function.**

**PART# 59181**

**Memory**

![Memory Diagram](image5)

**Works with SET-RESET GATE element (part # 59181) to perform a memory function.**

**PART# 59113**

**Delay Timer**

**Delay Timer Left**

![Delay Timer Left Diagram](image6)

**With supply pressure at port “B”, output at port “C” will begin a predetermined amount of time after constant input at “A” is started. Screwdriver adjustable for delays from .08 to 7.5 seconds ±4% timing accuracy.**

**PART# 59121**

**Delay Timer Middle**

![Delay Timer Middle Diagram](image7)

**Same as part #59121 (left) except it is dial adjustable for delays from .08 to 7.5 seconds ± 4% timing accuracy.**

**PART# 59156**

**Delay Timer Right**

![Delay Timer Right Diagram](image8)

**Same as part #59121 (far left) except it is non-adjustable. Factory preset 445 milliseconds ±10% timing accuracy.**

**PART# 59166-4**

**Pulse Timer**

**Pulse Timer Left**

![Pulse Timer Left Diagram](image9)

**With ports “A” and “B” connected to supply and pressurized, a momentary pulse will occur at out “C” for the timer period. Screwdriver adjustable for pulses from .08 to 7.5 seconds ± 4% timing accuracy.**

**PART# 59120**

**Pulse Timer Middle**

![Pulse Timer Middle Diagram](image10)

**Same as part #59120 (left) except it is dial adjusted. Timing range from .08 to 7.5 seconds ± 4% timing accuracy.**

**PART# 59155**

**Pulse Timer Right**

![Pulse Timer Right Diagram](image11)

**Same as part #59120 (far left) except it is non-adjustable. Factory preset 445 milliseconds ±10% timing accuracy.**

**PART# 59165-4**
### TIMER

<table>
<thead>
<tr>
<th>Part # 59115</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACCUMULATOR</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>When input pressure is applied to port “A”, output to ports “B” and “C” will be delayed for timer period. When input pressure is removed, output will continue for timer period. Use with one or more accumulators (part #59117) for increased timer periods. Range (with no accumulators) is .08 to 7.5 seconds ±4%. Low range increases by .06 seconds for each accumulator. Four accumulators maximum.</td>
</tr>
</tbody>
</table>

### INHIBITOR DIFFERENTIATOR FLIP-FLOP

<table>
<thead>
<tr>
<th>Part # 59800</th>
<th>Part # 59114</th>
<th>Part # 59892</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functions similar to a NOT element (part # 59112 except input pressure at port “A” must drop below 5% of supply pressure before element will reset. Useful in detecting air cylinder motion where limit valves cannot be applied. Input is port “A” supply is port “B”, output is port “C”.</td>
<td>With port “A” blocked, input at port “B” will produce a non-adjustable pulse at output port “C”. Pulse lasts approximately 80 to 130 milliseconds. Reset time is 110 milliseconds (minimum length of time that input at port “B” must be removed). Pulses can be lengthened by connecting ACCUMULATOR (part # 59117) to port “A”.</td>
<td>With supply pressure at ports “B” and “E” a momentary input at port “A” will produce constant output at port “C”. Momentary input at “F” will turn off output at “C” and turn on output at “D”.</td>
</tr>
</tbody>
</table>

### ELECTRIC TO AIR INTERFACE

<table>
<thead>
<tr>
<th>Part # 59915-33</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CIRCUIT BOARD MOUNTED POPPET VALVE</strong></td>
</tr>
<tr>
<td>Normally non-passing Three-way, single solenoid actuated valve. With port “B” pressurized and the coil energized, an air output occurs at port “C” when de-energized port “B” is blocked and “C” is exhausted.</td>
</tr>
</tbody>
</table>

### AIR TO ELECTRIC INTERFACE PORTING BLOCKS

<table>
<thead>
<tr>
<th>Part # 59891</th>
<th>Part # 59109</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normally open, single throw, single pole pressure switch. Can be mounted to any top mounted “C” port of a standard element or to a 1/8” FPT porting block mounted to circuit.</td>
<td>This Porting block provides straight through porting from the circuit to instant tubing.</td>
</tr>
</tbody>
</table>