

## STANDARD PNEUMATIC CIRCUIT BOARDS

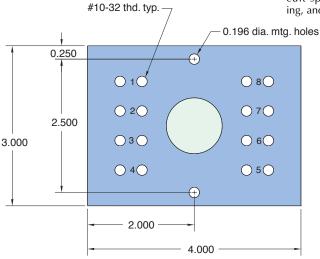
**CM-05** 

## Adapter Circuit Board with Dual #10-32 Ports

**Size:** 4" x 3" x 5/8" thick - 1 module

Use: Provides mounting for a single modular valve, and provides TWO #10-32 ports for each valve outlet. Ports are on the top side of the circuit board. Dual port arrangement is helpful where outputs need to be directed to more than one circuit location. Also helps work on alternate circuit uses, cir cuit splits, experimental design, test ing, and circuit design verification.



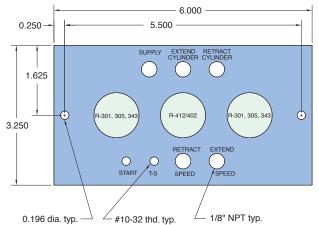


**CM-06** 

## **Automatic Cycler Without Limits**

RETRACT EXTEND
CYLINDER CLINDER
CHARGE

R-301
R-



**Size:** 6" x 3 1/4" x 13/16" thick - 3 modules

Use: Circuit board has 1/8" NPT cylinder outlet ports, #10-32 ports for "on-off" toggle valve, for the cycling of a double acting cylinder without the use of limit valves.

**Operation:** This circuit enables a double acting cylinder to reciprocate without the use of limit valves and to control its speed in each direction. As C-1 retracts, it creates a back pressure behind the piston. It is further increased by restricting the exhaust air at port 3 of V-2 to slow the return of the cylinder rod. This back-pressure holds the pilot down on V-3. When C-1 has fully returned, the back pressure diminishes. When there is insufficient pressure to hold the pilot down on V-3, the spring shifts the valve, which sends pressure to the right hand pilot (port 4) of V-2. This causes V-2 to shift, which starts C-1 to extend and pilots V-3 exhausting the pressure on the right hand pilot of V-2. As C-1 extends, an identical sequence occurs between V-1 and V-2 causing the 4-way valve to shift when C-1 has fully extended.