The MAC 250 series is designed to interface with the Ford/Chrysler standard base. This series is available in the following configurations:

- single or double solenoid
- 2 or 3 position
- single or dual pressure
- with or without indicator lights
- various electrical connections and manual operations

Valves and bases must be ordered separately. These may be assembled prior to shipping by adding the suffix -9 after the valve code.

**EXAMPLE:** MAC 250A-V1B1-PM-111DA-9
MAC 250A-821A-9

**SPECIAL APPLICATION INSTRUCTIONS**

The ‘A’ cylinder port is normally open. On a spring return valve, the spring is the ‘A’ operator, the solenoid the ‘B’ operator. Energizing the ‘B’ operator pressurizes the ‘B’ port; energizing the ‘A’ operator pressurizes the ‘A’ port.

**EXTERNAL PILOT APPLICATIONS**

An external pilot supply is only required when the main valve pressure is less than 25 psi on single solenoid or 3 position valves and less than 10 psi on double solenoid 2 position valves. Pipe the external pilot supply to the External Pilot Port supplied in the valve base or manifold.

**VACUUM APPLICATIONS**

(2-Pos. Valves Only) - Use an External Pilot model as described above and also connect the vacuum source to the Exhaust Port and leave the Inlet Port open to atmosphere.

The Inlet port may be connected to a pressure source to provide a selector application (vacuum/pressure).

**SELECTOR APPLICATIONS**

Use an External Pilot Model as described above if both pressures are below the minimum, otherwise use an Internal Pilot Model and connect the higher pressure to the Inlet Port and the lower to Port EA or EB depending on which cylinder port is to be active.

**Diagram**

- **REDA**
  - RED
  - GREEN
  - BLUE
  - BLACK
  - WHITE

- **RED/WHITE**
  - 1
  - 2
  - 3
  - 4
  - 5

- **RED/YELLOW**
  - 1
  - 2
  - 3
  - 4
  - 5

- **RED/BLACK**
  - 1
  - 2
  - 3
  - 4
  - 5

- **RED/WHITE**
  - 1
  - 2
  - 3
  - 4
  - 5

- **RED/YELLOW**
  - 1
  - 2
  - 3
  - 4
  - 5

- **RED/BLACK**
  - 1
  - 2
  - 3
  - 4
  - 5

**4 PIN CONNECTOR : SINGLE**

- **RED**
- **WHITE**
- **BROWN**
- **BLACK**
- **BLUE**

**4 PIN CONNECTOR : DOUBLE**

- **RED**
- **WHITE**
- **BROWN**
- **BLACK**
- **BLUE**
**SINGLE PRESSURE VALVES (WITH LIGHTS)**

<table>
<thead>
<tr>
<th>Electrical connector</th>
<th>Pilot air</th>
<th>5/2 Single operator</th>
<th>5/2 Double operator</th>
<th>5/3 Closed center</th>
<th>5/3 Open center</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>5 PIN</strong></td>
<td>Internal</td>
<td>MAC250A-V1A2-PM-XY-DA</td>
<td>MAC250A-V1A4-PM-XY-DA</td>
<td>MAC250A-V1B2-PM-XY-DA</td>
<td>MAC250A-V1B4-PM-XY-DA</td>
</tr>
<tr>
<td>(Ford wired)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5 PIN</strong></td>
<td>External</td>
<td>MAC250A-V1A2-PM-XY-DA</td>
<td>MAC250A-V1A4-PM-XY-DA</td>
<td>MAC250A-V1B2-PM-XY-DA</td>
<td>MAC250A-V1B4-PM-XY-DA</td>
</tr>
<tr>
<td>(Chrysler wired)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4 PIN MICRO</strong></td>
<td>Internal</td>
<td>MAC250A-V1G2-PM-XY-DA</td>
<td>MAC250A-V1G4-PM-XY-DA</td>
<td>MAC250A-V1G2-PM-XY-DA</td>
<td>MAC250A-V1G4-PM-XY-DA</td>
</tr>
<tr>
<td><strong>3 PIN</strong></td>
<td>Internal</td>
<td>MAC250A-V1E2-PM-XY-DA</td>
<td>MAC250A-V1E4-PM-XY-DA</td>
<td>MAC250A-V1E2-PM-XY-DA</td>
<td>MAC250A-V1E4-PM-XY-DA</td>
</tr>
<tr>
<td>(Ford wired)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5 PIN MICRO</strong></td>
<td>Internal</td>
<td>MAC250A-V1F2-PM-XY-DA</td>
<td>MAC250A-V1F4-PM-XY-DA</td>
<td>MAC250A-V1F2-PM-XY-DA</td>
<td>MAC250A-V1F4-PM-XY-DA</td>
</tr>
<tr>
<td>(Chrysler wired)</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**DUAL PRESSURE VALVES (WITH LIGHTS)**

<table>
<thead>
<tr>
<th>Electrical connector</th>
<th>Pilot air</th>
<th>5/2 Single operator</th>
<th>5/2 Double operator</th>
<th>5/3 Pressure center</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>5 PIN (Ford wired)</strong></td>
<td>External</td>
<td>MAC250A-V3A4-PM-XY-DA</td>
<td>MAC250A-V3B4-PM-XY-DA</td>
<td>MAC250A-V7A4-PM-XY-DA</td>
</tr>
<tr>
<td><strong>5 PIN (Chrysler wired)</strong></td>
<td>External</td>
<td>MAC250A-V3A4-PM-XY-DA</td>
<td>MAC250A-V3B4-PM-XY-DA</td>
<td>MAC250A-V7B4-PM-XY-DA</td>
</tr>
<tr>
<td><strong>4 PIN MICRO</strong></td>
<td>External</td>
<td>MAC250A-V3G4-PM-XY-DA</td>
<td>MAC250A-V4G4-PM-XY-DA</td>
<td>MAC250A-V7G4-PM-XY-DA</td>
</tr>
<tr>
<td><strong>3 PIN (Ford wired)</strong></td>
<td>External</td>
<td>MAC250A-V3E4-PM-XY-DA</td>
<td>MAC250A-V4E4-PM-XY-DA</td>
<td>MAC250A-V7E4-PM-XY-DA</td>
</tr>
<tr>
<td><strong>5 PIN MICRO (Chrysler wired)</strong></td>
<td>External</td>
<td>MAC250A-V3F4-PM-XY-DA</td>
<td>MAC250A-V4F4-PM-XY-DA</td>
<td>MAC250A-V7F4-PM-XY-DA</td>
</tr>
</tbody>
</table>

**Solenoid Operator**

- **XX**
  - **Voltage**
    - 11: 120/60, 110/30
    - 12: 240/60, 220/50
    - 22: 24/60, 24/30
    - 59: 24 VDC (2.3 W)
    - 87: 24 VDC (17.1 W)
    - 61: 24 VDC (8.5 W)

- **YY**
  - Manual operator
    - 1: Non-locking
    - 2: Locking

*Other options available, see page 357.

Note: Valves are supplied without base. For base code see page 291.
**TECHNICAL DATA**

- **Fluid:** Compressed air, vacuum, inert gases
- **Pressure range:**
  - Internal pilot: single operator and 3 positions: 25-150 PSI
  - External pilot: vacuum to 150 PSI
  - Double operator: 10-150 PSI
- **Pilot pressure:**
  - Single operator and 3 positions: 25-150 PSI
  - Double operator: 10-150 PSI
- **Lubrication:** Not required, if used select a medium aniline point lubricant (between 180°F to 210°F)
- **Filtration:** 40 µ
- **Temperature range:** 0°F to 120°F (-18°C to 50°C)
- **Flow (at 6 bar, ∆P=1bar):**
  - 1/2": (6.3 Cv), 3/4": (6.4 Cv), 1": (7.0 Cv)
- **Coil:** Epoxy encapsulated - class A wires - Continuous duty
- **Voltage range:** -15% to +10% of nominal voltage
- **Protection:** Consult factory
- **Power:**
  - Inrush: 14.8 VA
  - Holding: 10.9 VA
  - = 1 to 17.1 W

**DIAMETERS**

Dimensions shown are metric (mm)

Spare parts:
- Solenoid operator (power ≥ 4 W): D1-XXAA, cover mounting screws 35206 and seal 16234.
- Pilot valve: PME-XXYZZ, including seal 16337.
- Pressure seal between valve and base: 16487
- Mounting screw valve to base (x3): 32346.