



## **8 Overcurrent Protection (fuses)**

The **Mpac** is protected against component failures and mis-wiring by various fuses. Each is designed to protect a specific part of the actuator. Should a fuse be found open, the underlying cause of the failure must be corrected prior to replacement. When replacing a fuse, use only the specified type and rating to insure continued protection.

### Base Circuit Board

- F1: Heater (figure 8.A)  
Type: Fast Acting, 2 amp, glass or ceramic  
Replacement: Busmann AGC-2 or ABC-2
- F2: Solenoid (figure 8.A)—spring fail only  
Type: Fast Acting, 2 amp, glass or ceramic  
Replacement: Busmann AGC-2 or ABC-2
- F3: Controls (figure 8.A)  
Type: Time Delay, 0.1 amp, glass or ceramic  
Replacement: Busmann MDL-.1
- F4: Motor (figure 8.A)—B size Power Module only, 115 vac  
Type: Semiconductor, 5 amp  
Replacement: Littlefuse L15S5

### Contact Signal Input

- F1: Dry contact (figure 8.B)  
Type: Fast Acting, 2 amp, glass or ceramic  
Replacement: Busmann AGC-2 or ABC-2



Single Contact Input

- F1: Dry contact (figure 8.C)
- Type: Fast Acting, 2 amp, glass or ceramic
- Replacement: Busmann AGC-2 or ABC-2

C Motor Driver Board

- F5: Motor (figure 8.D)—C size Power Module only
- Type: Semiconductor, 15 amp
- Replacement: Littlefuse L15S15

**Figure 8.A Base Circuit Board**

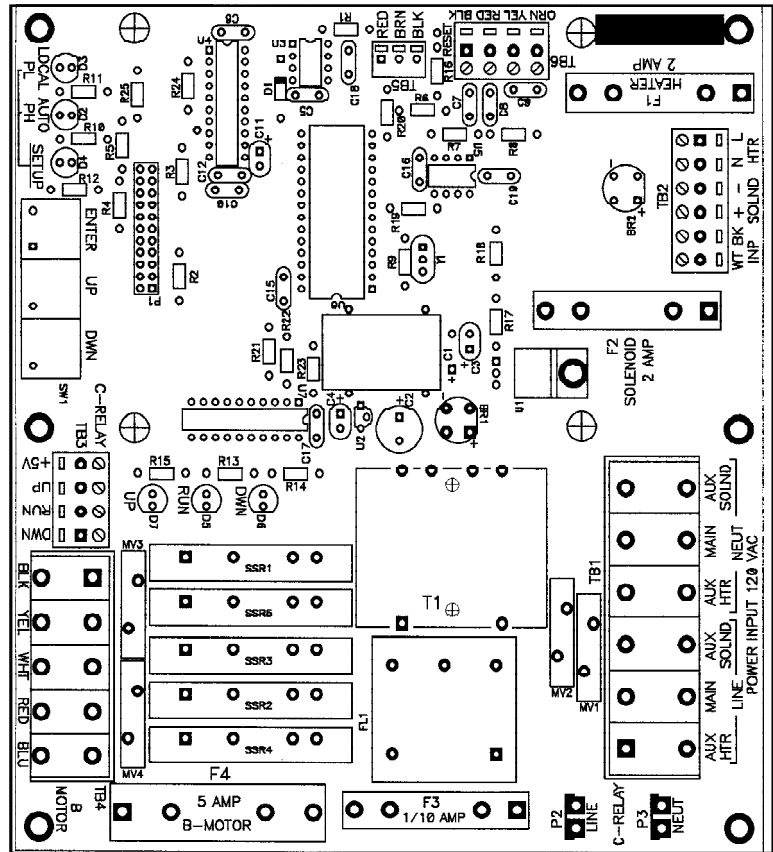




Figure 8.B Contact Signal Input Board

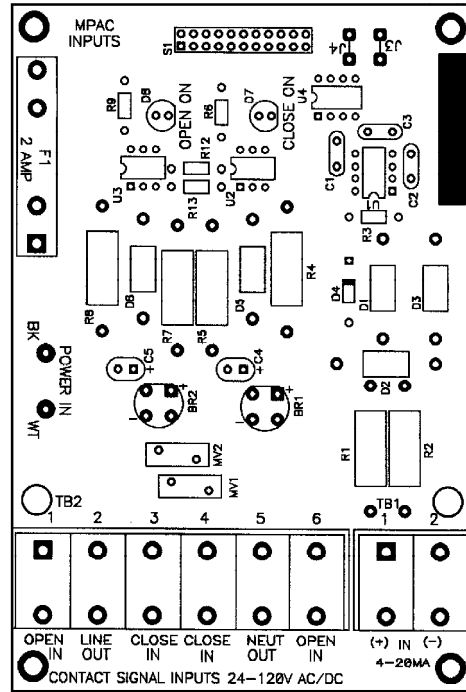


Figure 8.C Single Contact Input Board

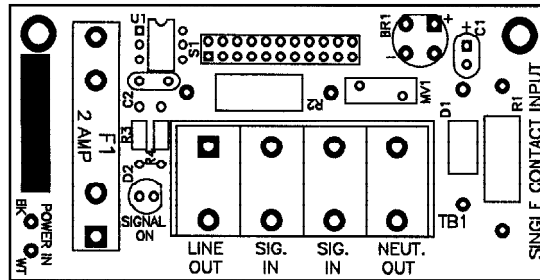


Figure 8.D C Motor Relay Board

