

8BP02, 8BP04, 8BP08, 8BP16



2-, 4-, 8-, and 16-Position Analog I/O Backpanels

Description

The 8BP02, 04, 08, and 16 backpanels can accept any of the 8B analog I/O modules in any mixture and can be mounted on the SCMXRK-002 19-inch metal rack. Analog I/O signal channels provide each module with its own analog bus. All module outputs are simultaneously accessible to high-speed data acquisition (ADC) boards. A temperature sensor is mounted on each channel to provide cold junction compensation for thermocouple input modules (see Figure 6 for schematic). Field connections are terminated with four screw terminals at each module site. Use system interface cable SCMCA006-XX for connection to the host system.

Specifications

Operating Temperature	-40°C to +85°C
Relative Humidity	95% Noncondensing
Interface Connector: Field System	high density screw clamp, 16 AWG max high density screw clamp, 16 AWG max
Isolation: Input-to-Output Channel-to-Channel	1500Vrms continuous, max 1500Vrms continuous, max

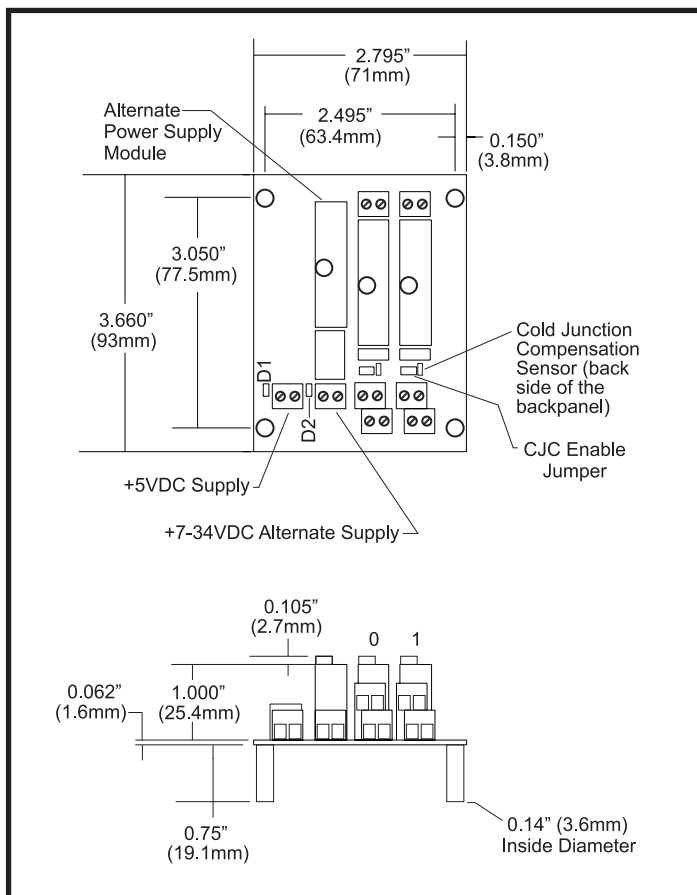


Figure 2: 8BP02 Analog I/O Backpanel

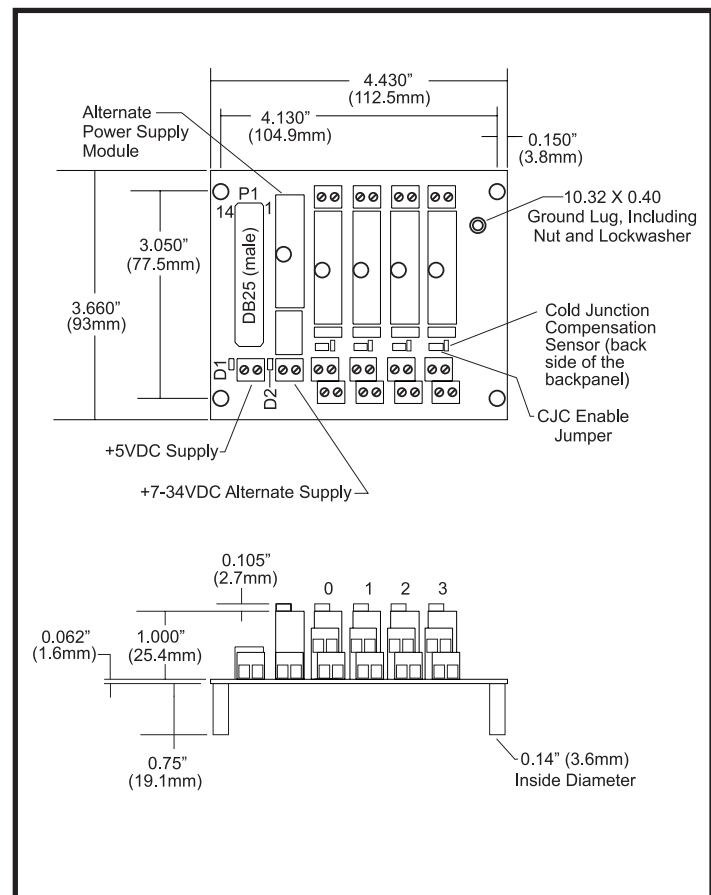


Figure 3: 8BP04 Analog I/O Backpanel

Electrical

Power

The 8B backpanels have two power supply options. A +5VDC ±5% supply can be connected to the '+5V Supply' terminal block, or alternatively, a wide ranging 7-34VDC supply can be connected to the 'Alternate Supply' terminal block. In the latter case, the 8BPWR-2 module must be installed on the backpanel. The backpanel contains circuitry which automatically switches between the supplies such that only one at a time provides power to the modules. When power connections are made to both terminal blocks simultaneously, the 7-34VDC supply takes precedence over the +5VDC supply.

Fusing

Backpanel power is fuse-protected through F1 and F2. Zener diodes D3 and D4 provide extra protection from overvoltage and supply reversal.

Grounding

For full protection against large electrical disturbances on the field-side of the 8B modules, a #10-32 ground stud is provided on the backpanel. An electrical connection between this ground stud and the system ground should be provided with a large gage wire of the shortest possible length.

Ordering Information

Part Number	Description
8BP02	Standard 2-channel backpanel with standoffs for mounting.
8BP02-1	8BP02 without cold junction compensation sensor. Use when cost savings are desired and thermocouple input modules 8B37 and 8B47 will not be used.
8BP02-2	8BP02 with DIN rail mounting option. The backpanel is captured by DIN rail mounting elements and is shipped fully assembled.
8BP02-3	8BP02-1 with DIN rail mounting option.
8BP04	Standard 4-channel backpanel with standoffs for mounting.
8BP04-1	8BP04 without cold junction compensation sensor. Use when cost savings are desired and thermocouple input modules 8B37 and 8B47 will not be used.
8BP04-2	8BP04 with DIN rail mounting option. The backpanel is captured by DIN rail mounting elements and is shipped fully assembled.
8BP04-3	8BP04-1 with DIN rail mounting option.
8BP08	Standard 8-channel backpanel with standoffs for mounting.
8BP08-1	8BP08 without cold junction compensation sensor. Use when cost savings are desired and thermocouple input modules 8B37 and 8B47 will not be used.
8BP08-2	8BP08 with DIN rail mounting option. The backpanel is captured by DIN rail mounting elements and is shipped fully assembled.
8BP08-3	8BP08-1 with DIN rail mounting option.
8BP16	Standard 16-channel backpanel with standoffs for mounting.
8BP16-1	8BP16 without cold junction compensation sensor. Use when cost savings are desired and thermocouple input modules 8B37 and 8B47 will not be used.
8BP16-2	8BP16 with DIN rail mounting option. The backpanel is captured by DIN rail mounting elements and is shipped fully assembled.
8BP16-3	8BP16-1 with DIN rail mounting option.

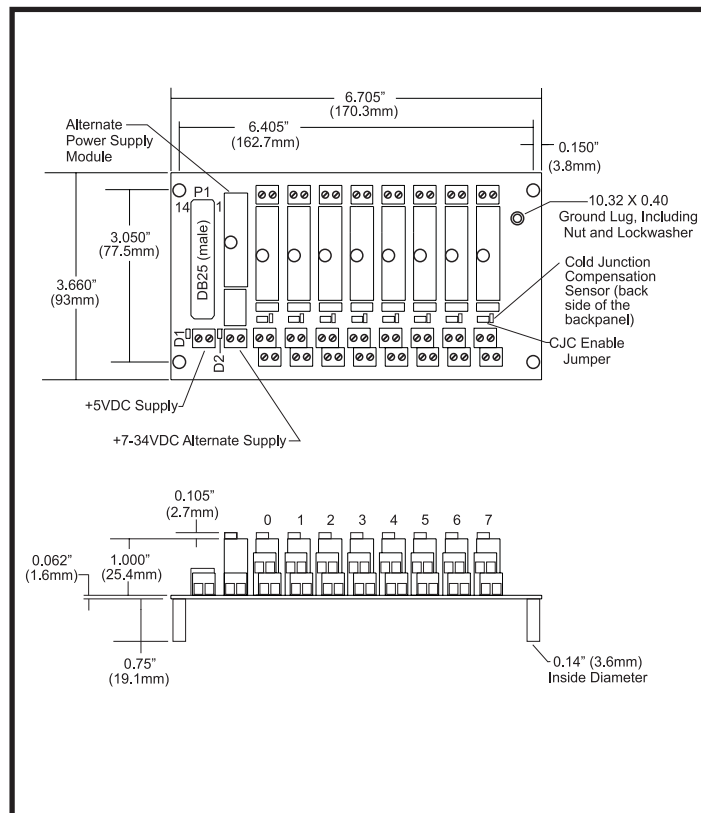


Figure 4: 8BP08 Analog I/O Backpanel

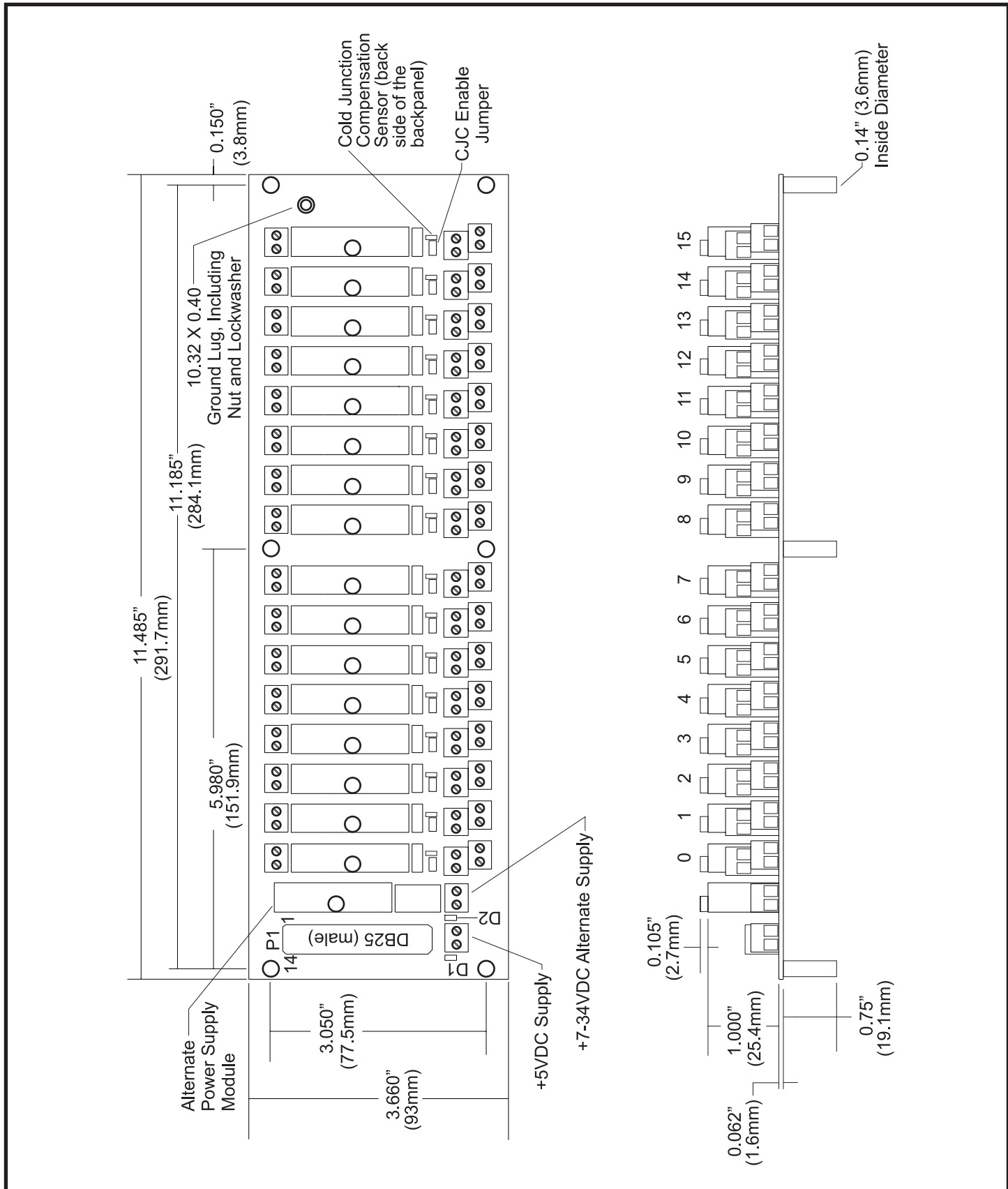


Figure 5: 8BP16 Analog I/O Backpanel

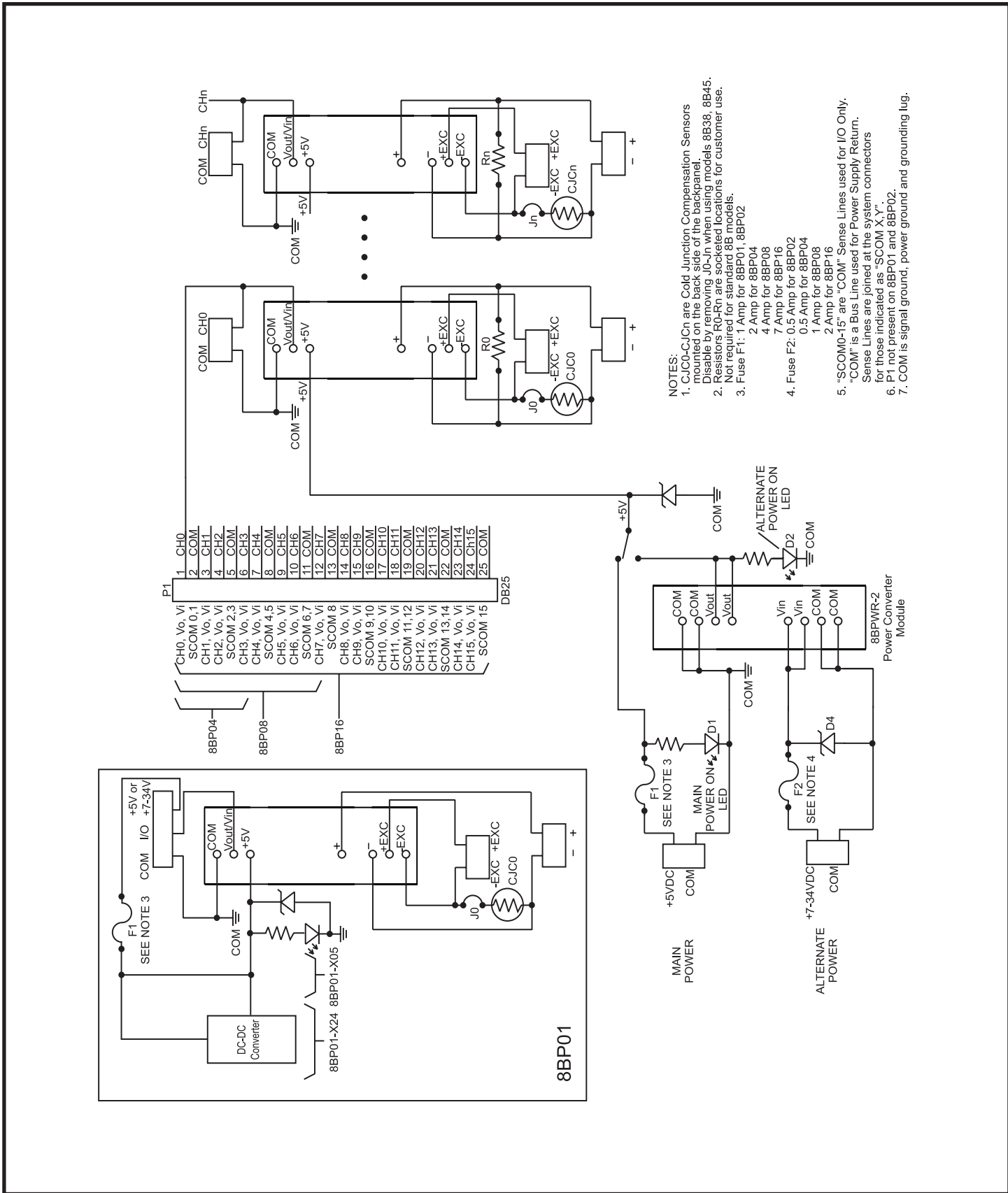


Figure 6: 8BP01/8BP02/8BP04/8BP08/8BP16 Schematic