High Voltage Concepts LLC

Remote Analog Customer Interface (Standard Pin-Out)

25 Pin Sub-D Connector

The Power Supply will have the FEMALE SUB-D connector on the back panel.
The MALE SUB-D connector with solder cups is provided with the unit.

1. **Voltage Reference:** 0-5 Volts Input = 0 to Full Output Voltage. This Reference must be connected to 5 Volts when using this supply in Current only mode, otherwise the auto-crossover control will believe you are requesting near zero voltage and no out will result. This only operates in remote mode.
2. **Current Reference:** 0-5 Volts Input =0 to Full Output Current. This Reference must be connected to 5 Volts when using this supply in Voltage only mode, otherwise the auto-crossover control will believe you are requesting near zero current and no out will result. This only operates in remote mode.
3. **Remote off/ Reset:** This pin must be pulled LOW in order to turn HV Off and Reset any Fault that has terminated normal operation. This pin operates as a momentary LOW and must be returned HIGH for next cycle normal operation. ***DO NOT*** *rely on this for Personal Safety,* ***always shut off circuit breaker and remove power plug*** *when working on your load or system in which this power supply is connected.* This pin will operate in local and remote mode, as well as the front panel HV off/ reset.
4. **Remote HV On:** Pull this pin Momentary LOW to apply HV On. This Pin must be returned HIGH before pulling LOW to activate HV On. If held LOW the power supply will not be able to apply the HV On condition. This pin will not activate HV On with an existing Fault condition on the display. This pin does NOT operate in local mode.
5. **Leave Disconnected.**
6. **Remote kV Monitor:** 0-5.0 Volts = 0 to Full Output Voltage. Output Impedance of this device is 1k Ohms. This Function is available in any mode.
7. **Remote Over Voltage Reference:** 0 to 5.0 Volts = 0 to Full Output Voltage over rides the internal Over Voltage setting which is fixed at 105% of the full output voltage. This function is available in any mode.
8. **Remote Over Current Reference:** 0 to 5.0 Volts = 0 to Full Output Current over rides the internal Over Current setting which is fixed at 105% of the full output current. This function is available at all times.
9. **+5 volts.**
10. **Leave Disconnected.**
11. **+15 Volts** 20mA Max
12. **-15 Volts** 20mA Max
13. **Common.**
14. **Common.**
15. **Common.**
16. **Local/ Remote Command:** Pulling this pin LOW and holding will remove control from the front panel. The Front Panel Potentiometer References will be over ridden as well as the HV On Command. Meters will function normally and the Preset button will read the remote program reference inputs instead of the Front Panel Potentiometers. All LED function remain.
17. **Temperature:** This pin reads the temperature of the IGBT in the power driver. The measurement is in Kelvin/100. Room temperature will read 2.93V or 293^{o} Kelvin. This function is available in any mode.
18. **Leave Disconnected.**
19. **Remote Current Monitor:** 0-5Volts = 0 to Full Output Current. Output Impedance of this device is 1k Ohms. This function is available in any mode.
20. **Common.**
21. **Common.**
22. **+5 volts.** 100mA Max.
23. **Leave Disconnected.**
24. **Reference Voltage +10 Volts:** 5mA Max Current Draw.
25. **External Interlock:** This pin must be held LOW in order to operate power supply. A HIGH or an OPEN on this pin will trip the unit off via an Interlock FAULT and block the application of HV On. This pin must be held LOW before the OFF/ RESET command can be used to clear the fault. This function is always available.