

Remote Analog Customer Interface (X-Ray Pin-Out) 37 Pin Sub-D Connector

Remote FEMALE SUB-D connector is on the back panel a Male Sub-D mate is provided.

1. **Voltage Reference:** Voltage Control for E-Beam remains with front panel control at all times.
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 output will result. This only operates in remote mode.
3. **N.C.** This pin has no connection.
4. **Remote HV On-Off/Reset:** Apply and maintain voltage in range (+8.5 volts minimum to +24 volts maximum) to turn on HV. This sequence will occur after application of stated voltage; Filament will energize in standby mode 7 seconds later HV will turn on. Upon removal of the stated voltage HV will turn off then 7 seconds later the filament will turn off.
5. **NC.** This pin has no connection.
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 Fault Set-point 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 Fault Set-point 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 in any mode.
9. **+5 volts.**
10. **Filament Monitor.** 0-5 volts = 0- Full Current Amps this signal is present in all modes.
11. **+15 Volts** 20mA Max
12. **-15 Volts** 20mA Max
13. **Common.**
14. **HV On Signal.** When HV On is commanded this pin goes Low. Its output impedance is 2k ohm, and the High position is +5 Volts. This signal is always present in Local and Remote control.
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 remains.
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° Kelvin. This function is available in any mode.
18. **NC.** This pin has no connection
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. **Fault Signal.** When Fault is triggered this pin goes Low. Its output impedance is 2k ohm, and the High position is +5 Volts. This signal is always present in Local and Remote control. To clear fault cycle HV Off/Reset see pin 4.
21. **Common.**
22. **+5 volts.** 100mA Max.
23. **Remote Filament Reference Input.** 0 to 5 volts = 0 to Full Current. This signal must be 500 ohm or lower output impedance to override the front panel, a 1k ohm potentiometer will work. This function can't be used with rear panel filament adjustment pots.
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.
26. **Remote High Voltage lamp On.** {+} Provides +24 volts source for a lamp when high voltage is enabled.
27. **Remote High Voltage lamp Return.** {-}Return for +24 volts lamp.
28. **Pump Voltage Return.** {-}Return for +24 volts for coolant pump relay.
29. **Pump Voltage +24 volts:** {+} Provides +24 volts source for tube coolant pump relay. Other voltages are available.
30. **Filament On Remote:** Controlled by HV On- Off/Reset see pin 4.
31. **Filament Off Remote:** Controlled by HV On- Off/Reset see pin 4.
32. **Filament On Signal:** This pin is normally high (+5 Volts) with Filament OFF and Goes Low when Filament is ON.
33. **Common:**
34. **Common:**
35. **Common:**
36. & 37. **Spare:**