Testing of the SoLID Constant Current Source Board

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Single Channel Circuit

Constant Current Source Channel

[Diagram of the circuit with labels and connections]

- Power Input Connector (PL101)
- Fuse (F1)
- Control Input (from external source)
- Remote/Local Selector
- N.O. Relay
- Current Output
- Temperature Sensor
- Voltage divider output
- Input/Local power
- Remote power
- Compensation circuit
- Return path

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Relay Test

- All channels of controls input connector J2 are bussed and all relays are energized at the same time

- LEDs indicate power on all channels of current output connector J1
Constant Current Test

• Configured in local mode (by shorting pins 2 and 3 on JP101)
• Input voltage is increased from 1.4 V to 30 V, verified with DMM1
• Current stays constant at \(~100\ \mu\text{A}\) after input voltage reaches 11 V
Conclusion

• Eight boards were assembled and tested
  – All test results were as expected