Power Entry Module

The power entry module is used to fuse the AC line voltage input, select the line voltage, and block high frequency noise from entering or exiting the instrument. Refer to the first page of this manual for instructions on selecting the correct line voltage and fuse.

IEEE-488 Connector

The 24 pin IEEE-488 connector allows a computer to control the SR830 via the IEEE-488 (GPIB) instrument bus. The address of the instrument is set with the [Setup] key.

RS232 Connector

The RS232 interface connector is configured as a DCE (transmit on pin 3, receive on pin 2). The baud rate and parity are programmed with the [Setup] key. To connect the SR830 to a PC serial adapter, which is usually a DTE, use a straight thru serial cable.

AUX IN 1-4 (A/D Inputs)

These are auxiliary analog inputs which can be digitized by the SR830. The range is -10.5V to +10.5V and the resolution is 16 bits (1/3 mV). The input impedance is 1 MΩ.

These inputs may be displayed on the CH1 and CH2 displays. These inputs allow signals other than the lock-in outputs to be acquired (and stored). Furthermore, ratio quantities such as X/Aux1 may be displayed (and stored).

AUX OUT 1-4 (D/A Outputs)

These are auxiliary analog outputs. The range is -10.5V to +10.5V and the resolution is 1 mV. The output impedance is <1Ω and the output current is limited to 10 mA.

These outputs may be programmed from the front panel ([Aux Out])or via the computer interfaces.

X and Y

The X and Y lock-in outputs are always available at these connectors. The bandwidth of these outputs is 100 kHz. A full scale input signal will generate ±10V at these outputs. The output impedance is <1Ω and the output current is limited to 10 mA.