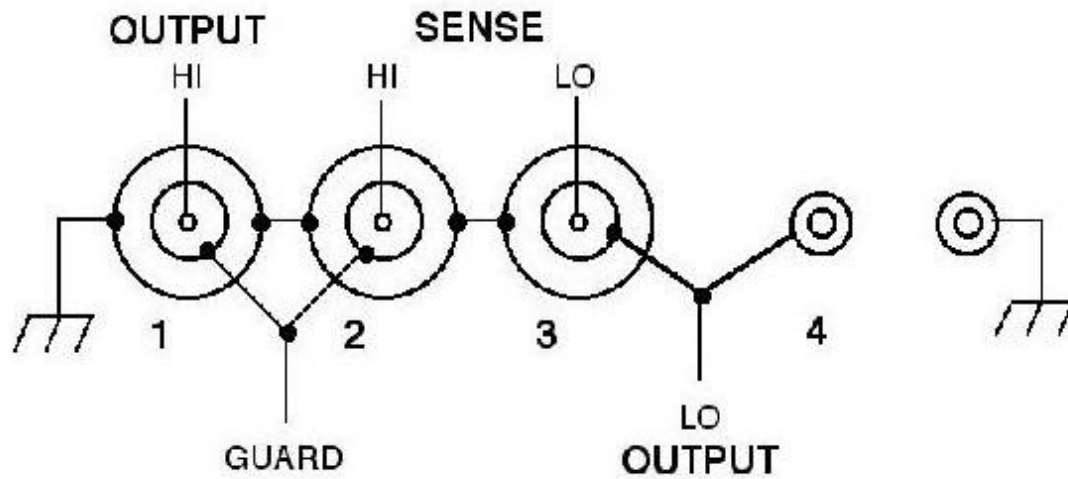


236, 237 and 238 TERMINALS



The terminal numbers are from figure 1-12 of the instruction manual

If LOCAL sense is used, then only terminals 1 and 3 (or 4) need to be used. If LO is connected to earth ground at 4, then only terminal 1 is needed – the center terminal is the output and the outer terminal is grounded shield.

If REMOTE sense is used, then terminals 1, 2 and 3 must be used. Terminal 4 can also be used for LO output.

The main purpose of Terminal 4 is to enable easy grounding of the output LO.

Measuring low resistance with the Source Measure Unit (SMU):

Using the remote sense and four-wire connection, it should be possible to source a current, measure the voltage drop and then calculate a fairly low resistance. With 100 mA and an unknown of 10 milliohms, the voltage will be only 1 millivolt. Since the voltage offset can be greater than 750 μ volts, the reading will not be very accurate.

If the current were reversed in polarity, the offset should cancel. However, with the SMU this does not work. Instead, use the following procedure:

Connect all four wires to the unknown resistor. Set the SMU for remote sense with maximum voltage sensitivity, to source 1 nA (or zero nA). Then with the output enabled, press the Suppress button. Then change the source to 100 mA and read the voltage drop. The 10 mOhm will be measured within one percent.