

Overvolutaging the instruNet 100 Voltage Inputs

Application Note #23, 8/13/2002

The iNet-100xx Voltage inputs are designed to handle voltages between -15V and +15V without damage; whereas higher voltages will blow the 2K ohm series resistors behind the Vin screw terminals. These resistors act as fuses, and open when overvolutaged. When this occurs, one must replace the blown 2K resistor, or place another 2K resistor on top of the original.

We tested instruNet with 120VAC applied to voltage inputs and found that no semiconductors or pcb traces were damaged (as designed). The 2K ohm resistors are 1206 surface mount 1% 1/8watt resistors that are easily replaced, or one can simply place a new one on top of the blown original, as illustrated below. The stacking operation requires a regular pencil-like soldering iron. To add the second resistor, one must place a bead of solder on one side of the original resistor, place the 2nd resistor on top of the 1st, hold the 2nd down with a little stick, melt the bead of solder at one end with the iron to bond the 2 resistors together, let that bead cool, and then bond the other sides together with additional solder.

