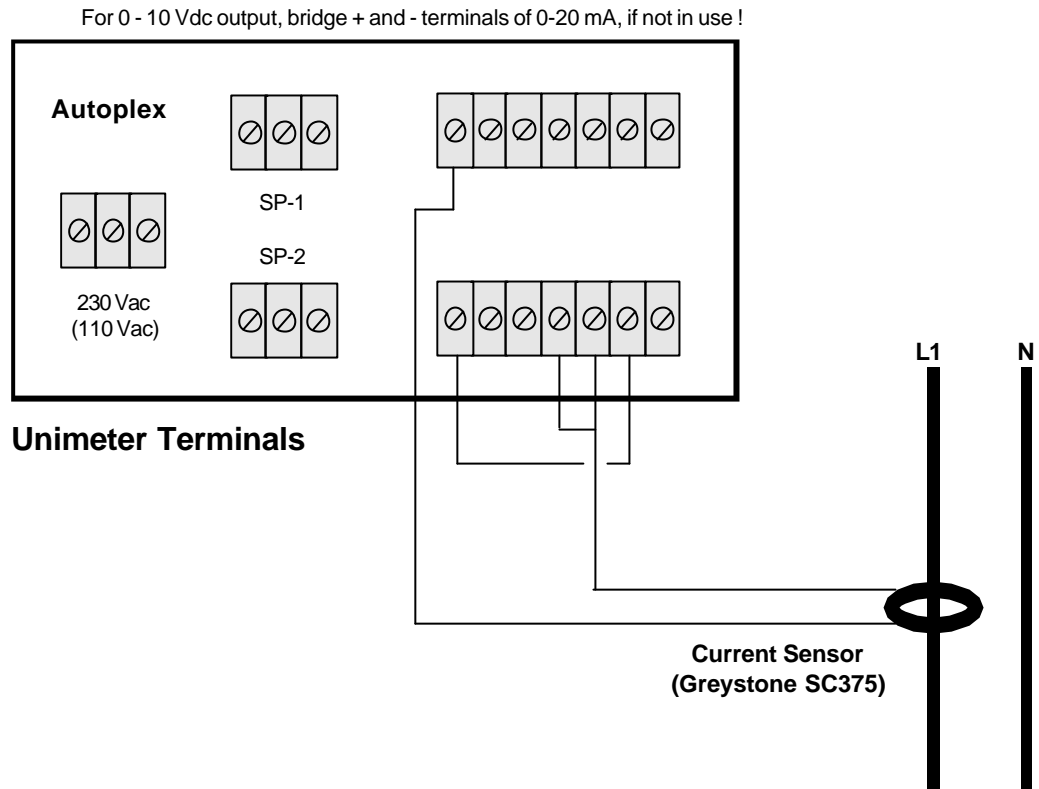


Unimeter - Current Monitor

This paper details an application of Current Monitoring (0 to 200Amps AC) with the Unimeter XQL.



To date, many applications of power monitoring have been achieved with function 210. Here is another method of mains power monitoring for those applications where only the current is required and used function 81.

A Greystone SC375 current sensor is used to measure the current through a bus-bar or wire. Note that no electrical connection exists between the mains current and Unimeter. The SC375 is jumper selectable to three ranges: 0-10A, 0-50A and 0-200A

Power from the Unimeter user power supply is fed into the current sensor. The flow of current through the sensor is regulated inductively by the flow of mains power through L1. This 4-20mA sensor current flow is measured by the Unimeter and is proportional to the mains current.

This method of measurement is safer than that of a current transformer, as rises and spikes in the mains current will be limited to the Unimeter through the user power supply output of 50mA.