Manual for Galvanometer

The Student Galvanometer is a rugged yet sensitive instrument, designed specifically for student experiments. It has a center-zero meter and three current ranges. When performing a null-current experiment, such as measuring resistance using a Wheatstone bridge, it is easy to balance the current using the 5 mA range, then step down through the lower current ranges to very accurately determine the point of zero current.

Operation is simple. Connect the circuit between the negative terminal of the galvanometer and the red input connector with a current rating greater than the expected current. As a general rule, it's a good idea to begin with the 5 mA range, then step down to the lower ranges if you need them. The meter is protected while you make the connections, because the current doesn't pass through the meter. Instead, it passes through a parallel shunt resistor that has the same resistance as the meter.

When the connections are made, and you are ready to measure the currenct, press the PUSH TO READ button below the meter, and hold it down while you read the current.

The current ranges displayed beside the input connectors refer to the current value that will give a full scale meter delection. For example, a meter reading of +40 in the 5 mA range indicates a current of 4 mA is flowing through the galvanometer. A reading of -40 indicates that 4 mA of current is flowing in the opposite direction.

Technical data:

Measuring range:	Internal resistance:	Max. current	Accuracy:
± 5 mA	ca. 8 Ω	100 mA	±5%
± 500 µA	ca. 80 Ω	100 mA	±5%
± 50 µA	ca. 800 Ω	1 A	±5%