

Electronics Digital Multimeters

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Digital Multimeter (DMM)

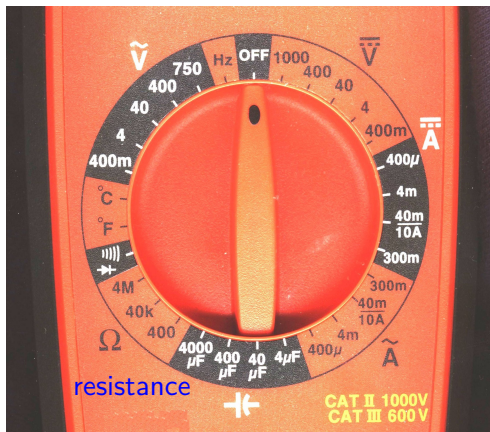
- allows measurement of multiple things
voltage, current, resistance
- allows measurement of both DC (ie. static) and AC (i.e. time-varying) quantities



Sample multimeter - Amprobe 33XR



Display section - Amprobe 33XR

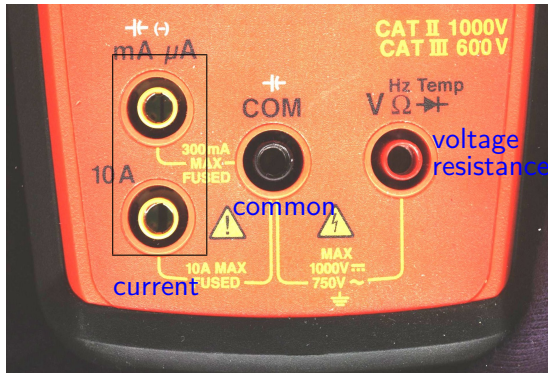


DC voltage

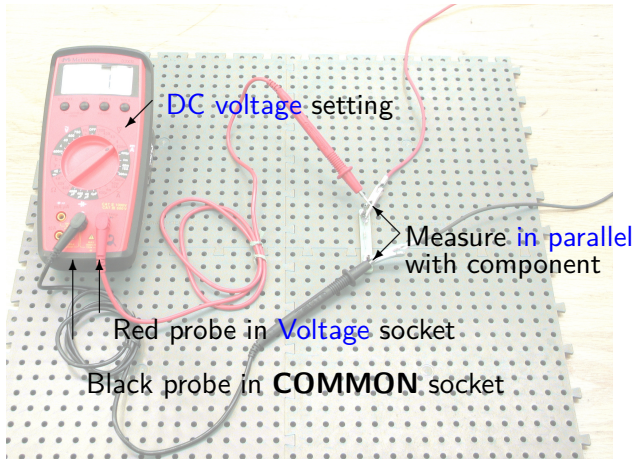
DC current

resistance

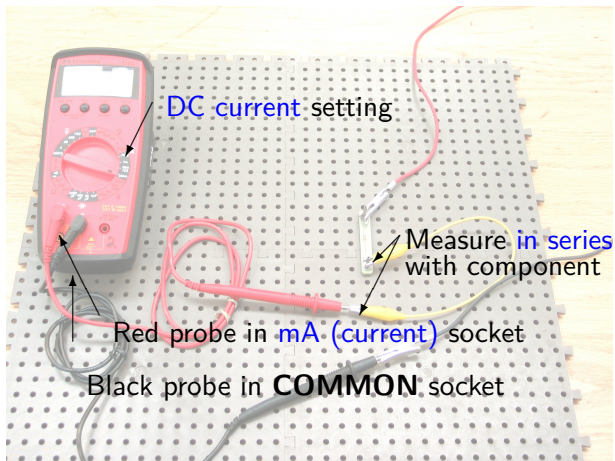
Control section - Amprobe 33XR



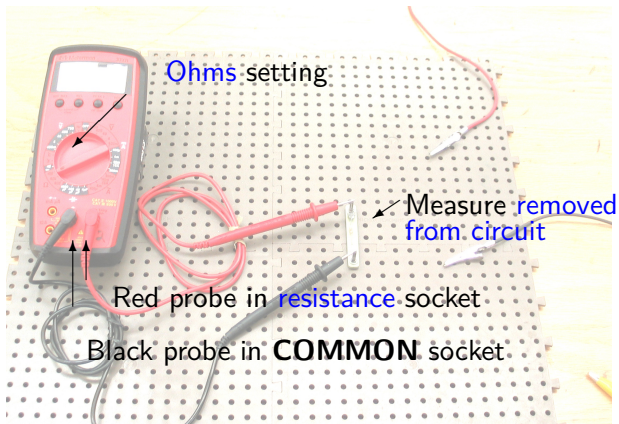
Connection section - Amprobe 33XR



Voltage measurement



Current measurement



Resistance measurement

Recap:

- ① Voltage is always measured by a meter **in parallel** with the device being measured with the leads in the *common* and *voltage* terminals.
- ② Current is always measured by a meter **in series** with the device being measured with the leads in the *common* and *current* terminals.
- ③ Resistance is always measured with the power off, or preferably by removing the resistor from the circuit with the leads in the *common* and *resistance* terminals.