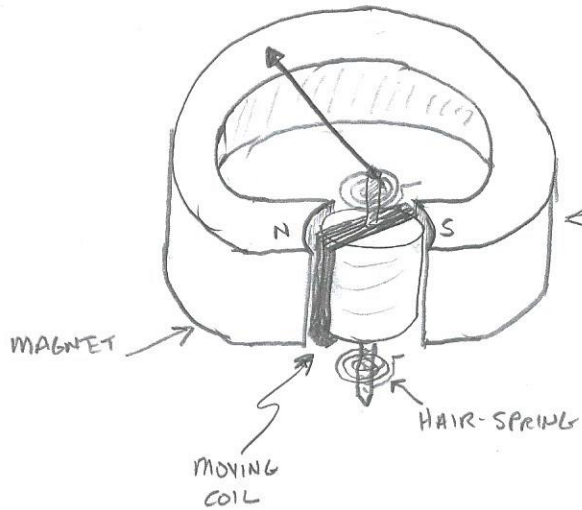


BASICS OF ANALOG PANEL METERS

WZAEW

MOST ARE:

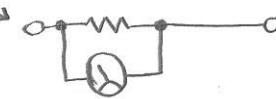
- LOW CURRENT AMMETERS (REGARDLESS OF SCALE)
- SOME HAVE BUILT-IN SERIES OR SHUNT ELEMENTS TO CHANGE SCALE / FUNCTION



- VOLTMETERS

- HIGH CURRENT AMMETERS

- RF AMMETERS, WATTMETERS, ETC.



- D'ARSONVAL METER MOVEMENT

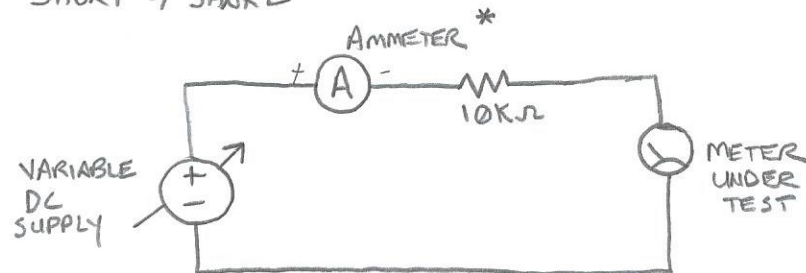
- COMMON FULL SCALE CURRENT VALUES + COIL RESISTANCES

50 μ A	100 μ A	200 μ A	1 mA
FEW K Ω	←————→		FEW HUNDRED Ω

SIMPLE WAY TO TEST UNMARKED / UNKNOWN METERS

- GO / NO-GO TEST : "SHORT & SHAKE"

- FULL SCALE CHECK:



* IF YOU DON'T HAVE AMMETER THAT CAN MEASURE 50 μ A, THEN SIMPLY MEASURE VOLTAGE ACROSS 10K Ω AND CALCULATE I AT FULL SCALE