

# TYPES OF AMMETERS & VOLTMETERS

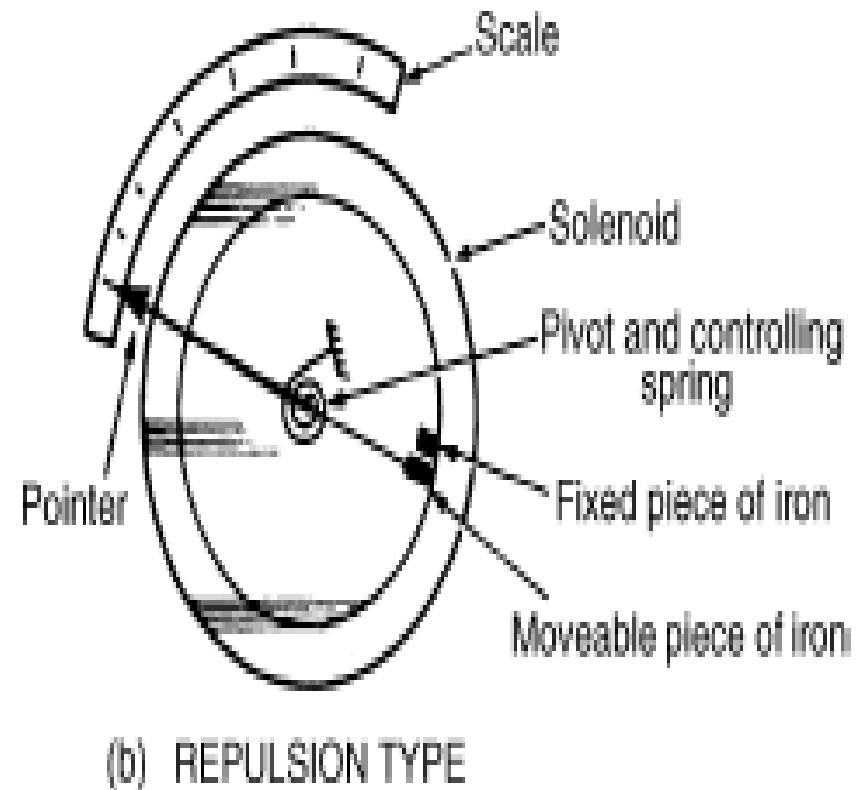
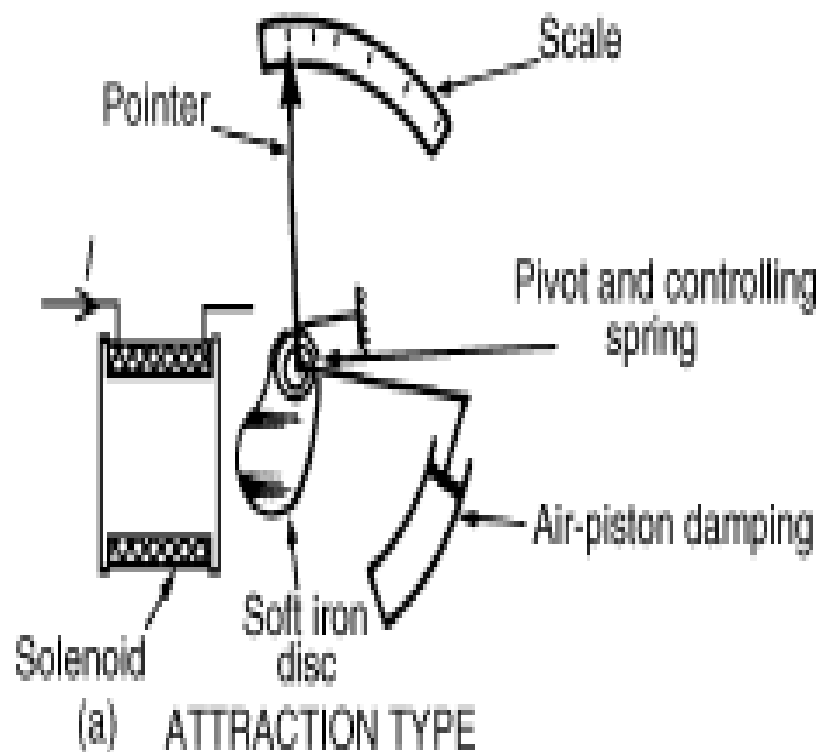
- 1) **Moving Iron Type Meters (AC & DC);**
  - a) **Attraction type,**
  - b) **Repulsion type.**
  
- 2) **Moving Coil Type Meters (AC & DC);**
  - a) **Permanent Magnet type,**
  - b) **Electrodynamics or Dynamometer.**
  
- 3) **Hot Wire Type (AC & DC);**
  
- 4) **Induction Type (AC & DC);**
  - a) **Split phase,**
  - b) **Shaded Pole type.**

- 5) **Electrostatic Type for Voltmeters Only;**

# Moving-iron instrument

- \* An attraction type of moving-iron instrument is shown diagrammatically in Figure. When current flows in the solenoid, a pivoted soft-iron disc is attracted towards the solenoid and the movement causes a pointer to move across a scale.
- \* In the repulsion type moving-iron instrument shown diagrammatically in Figure, two pieces of iron are placed inside the solenoid, one being fixed, and the other attached to the spindle carrying the pointer.

# Moving-iron instrument



# Moving-Coil instrument

- \* There are two types of moving coil instruments namely, permanent magnet moving coil type which can only be used for direct current, voltage measurements.
- \* The dynamometer type which can be used on either direct or alternating current, voltage measurements.

# PERMANENT MAGNET MOVING COIL

“The principle operation of PMMC is based upon the principle of current carrying conductor is placed in a magnetic field it is acted upon by force which tends to move it.”

