Induction Sensors

BYM 501E – FUNDAMENTALS OF BIOMEDICAL ENGINEERING

Romane Dubin – 30/09/19

Induction Sensors

- **Displacement Measurement** with **Magnetic Field**
- **Inductance L :**

$$L = n^2.G.\mu$$

N : Number of turn

G : Geometric configuration

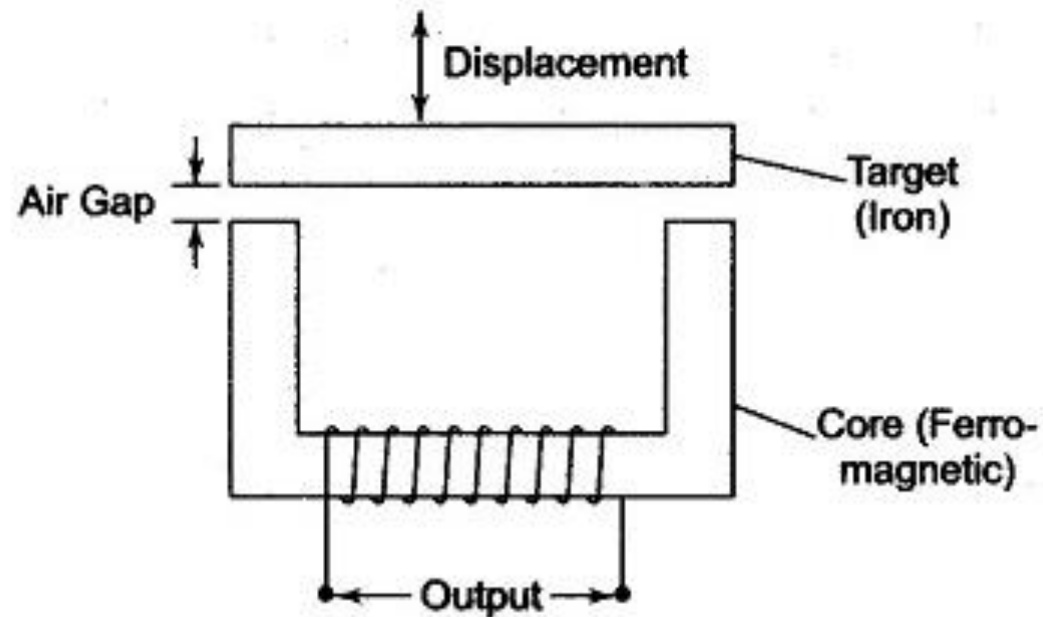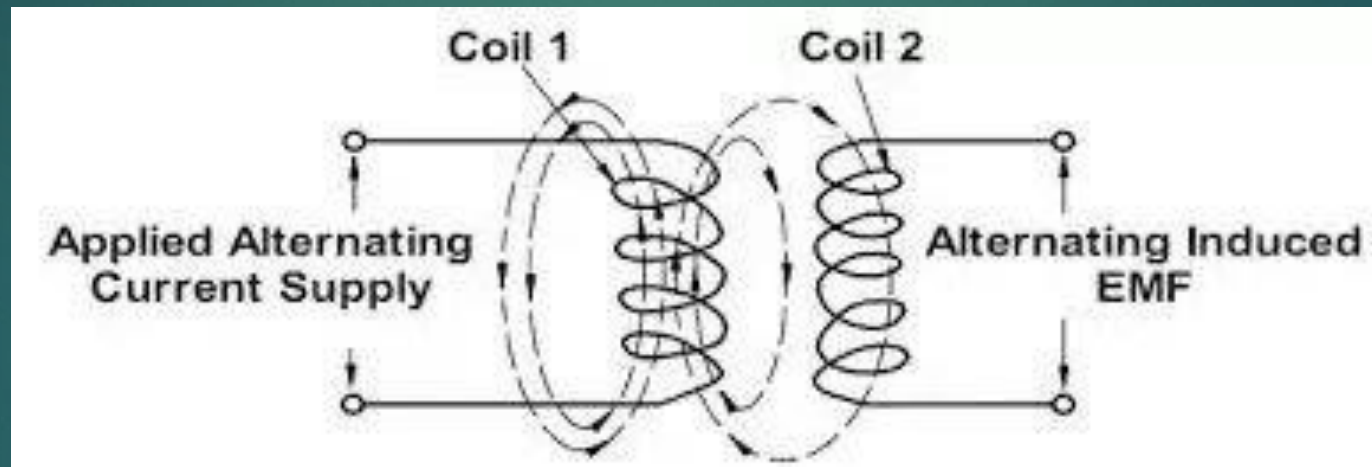*µ : Material Permeability*

Self Inductance – Variable Inductance

Fig. 13.16(a)   Variable Reluctance Transducer

Mutual Inductance

LVDT
Linear **V**ariable **D**ifferential **T**ransformer