

EIPC
NEE-403
Unit-3
Telemetry

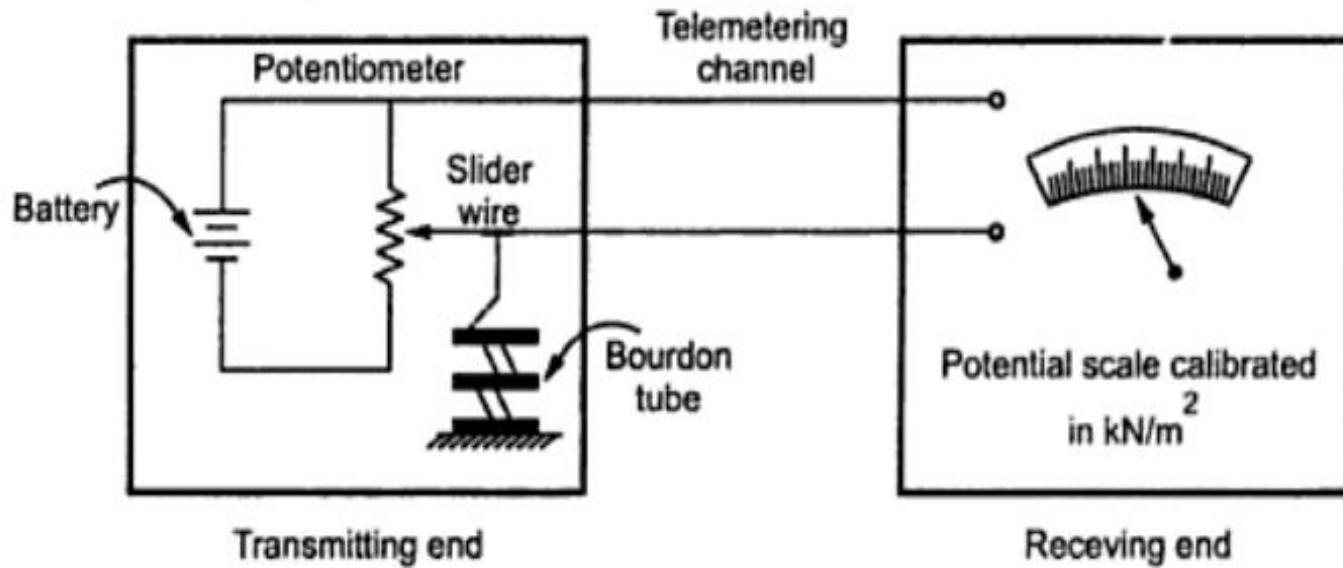
LANDLINE TELEMETRY SYSTEM

Voltage telemetry system

- Measured Variable is transmitted in form of voltage
- At transmitting end, Slide wire is connected in series with battery.
- Slide wire is further connected to Bourdon tube for pressure measurement.
- When pressure changes, slider actuates the slider of potentiometer. Thus , change in Voltage is transmitted to rvr.
- It is transmitted at the receiver end.

Circuit of Voltage Telemetry System

Voltage telemetry system



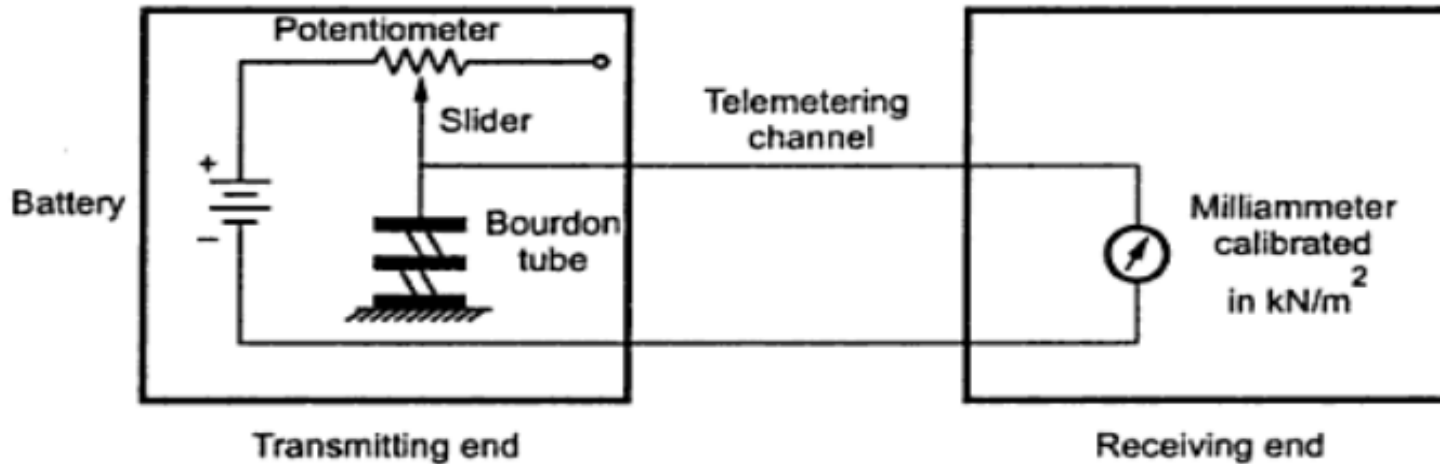
Circuit of Voltage Telemetry System

Current telemetry system

- Working is almost same as of Voltage telemetry system
- When pressure changes Borden tube moves sliding contact thereby value of current changes
- This current passes through pair of wires and measured by milliammeter.

Circuit of Current Telemetry System

Current telemetry system



Circuit of Current Telemetry System

Demerits and merits

Merits:

- Effective for short distance measurement
- V and I can be easily transmitted
- Circuitry required is simple
- Wide variety of primary sensing elements are available to measure reqd. Variable.

Demerits and merits

Demerits:

- Demands high S/N ratio that is difficult to calibrate.
- Need to be protected from EMI, noises and distortions in the channel.
- Multiplexing is difficult
- Limited frequency response

Thank You