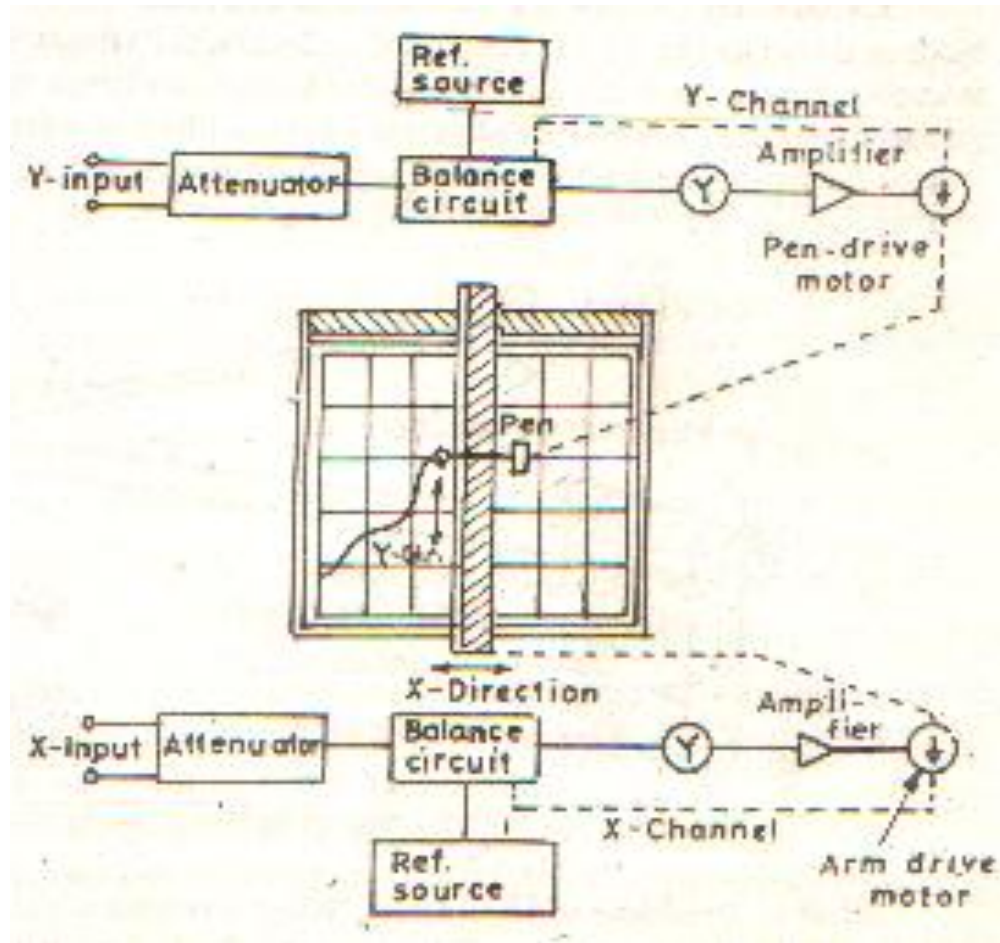


X-Y RECORDERS



A strip chart recorder records the variations of a quantity with respect to time while X-Y recorder is an instrument which gives a graphic record of the relationship between two variables.

In strip chart recorders, usually self-balancing potentiometers are used. These self-balancing potentiometers plot the emf as a function of time. The X-Y recorder, an emf is plotted as a function of another emf.

This is done by having self-balancing potentiometer control the position of the rolls while another self-balancing potentiometer controls then position of the recording pen.

In some XY recorder, one self-balancing potentiometer circuit moves a recording pen in the X direction while another self-balancing potentiometer circuit moves the recording pen in the Y direction at right angles to the X directions, while the paper remains stationary.

They are many variations of XY recorders. The emf, for operation of XY recorders, may not necessarily measure only voltages. The measured emf may be the output of a transducer that may measure displacement force, pressure, strain, light intensity or any other physical quantity. Thus with the help of XY recorders and appropriate transducers, a physical quantity may be plotted against another physical quantity.

Hence an XY recorder consists of a pai of serve system, driving a recording pen in two axes through a proper sliding pen and moving arm arrangement, with reference to a stationary paper chart.

An signal enters each of the two channels. The signal are attenuated to the inherent full scale range of the recorder, the signal then passes to a balance circuit where it is compared with an internal reference voltage.

Source: <http://mediatoget.blogspot.in/2012/04/x-y-recorders.html>