

D5623 Automatic Reference Selection Option.

The D5623 Automatic Reference selection option can automatically select the most positive of a group of up to 4 references to either display or to use as a control input to a rectifier. The reference selection cards can be ganged to select from a larger number of references. The D5623 uses a high input impedance amplifier and will not load reference circuits.

The D5623 reference selection system is intended to automatically select the most positive reference from a group of half cell references which have a common structure return. The most positive reference can then be used to control an impressed current rectifier in auto potential mode, or to display on a meter which does not have high input impedance, or to drive an alarm relay.

The D5623 reference selector uses a set of high input impedance instrumentation amplifiers which buffer the reference signal. The buffered signal is passed to a discrimination amplifier. The discrimination amplifier selects which reference is the most positive with respect to the common structure and this signal then becomes the output.

The reference selection system has almost no time delay and operates instantaneously to select the most positive reference. The discrimination circuits in the reference selector system can detect a voltage difference of millivolts between the most positive reference and the next most positive reference.

A link selection facility on the D5623 board allows the board to be set to monitor 2, 3 or 4 references. Larger numbers of references can be simply monitored with the D5623 system by directing the output of one group of reference cells into one of the input channels of another D5623 system.

In this manner 2 x D5623 monitor cards can measure the output from up to 7 references from 2 structures.

CATHODIC PROTECTION SYSTEMS , ACCESSORIES

The D5623 control board requires an input of $\pm 10 - 15V$ dc at 10mA load to operate. The board is provided in a plastic IP 55 enclosure of dimensions 70mm x 95mm x 25mm with a standard octal relay base.

