

ABSTRACT

Title: **Residual Current Device**

A two pole residual current device (**RCD**) comprises a Detector to detect imbalance between live and neutral currents. A Thyristor (**SCR1**) is triggered to allow conduction, allowing a current to flow through the coil of a Solenoid to trip a switching mechanism (**M**) which opens the contacts, disconnecting the faulty circuit. To allow protection of the circuit in the event of a disconnection in the neutral supply, diodes **D1**, **D2** are provided to allow current to flow through the Solenoid selectively to the neutral or earth line. To reduce tendency for current to flow to the earth line, particularly on test, a circuit element **E** is provided which may be connected in parallel or in series with the Thyristor **SCR1** comprising a first circuit member **ZD2** which resists flow of current up to a first threshold value, and a second circuit member **SCR2** which permits flow of current at low impedance, the second circuit element being triggered by a flow of current from the first circuit element when the voltage applied thereto exceeds said threshold value.

This Sheet Has Been Replaced

