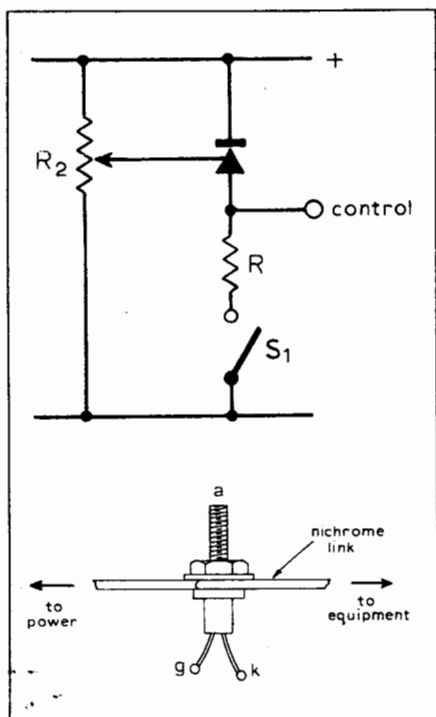


## Thermal overload cut-out

Thyristors provide a simple and economic answer to the older mechanical overload cut-out. Four-layer devices have a trigger threshold that is temperature dependent. By arranging that the gate current is just below the threshold, any increase in temperature will cause triggering. Potentiometer  $R_2$  sets the bias current to the "just untriggered" level. Once triggered the thyristor latches and can only be reset by opening  $S_1$ . Circuit control can be via relays and/or transistors.



The heating element can be isolated from the thyristor case, or it can be a short resistive link, in the positive line or bolted to a heat sink, and connected to the thyristor anode as shown. In d.c. circuits a  $1/25\Omega$  will monitor a 25A circuit with ease. Thyristor packaging and mounting govern the thermal inertia of the system.

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