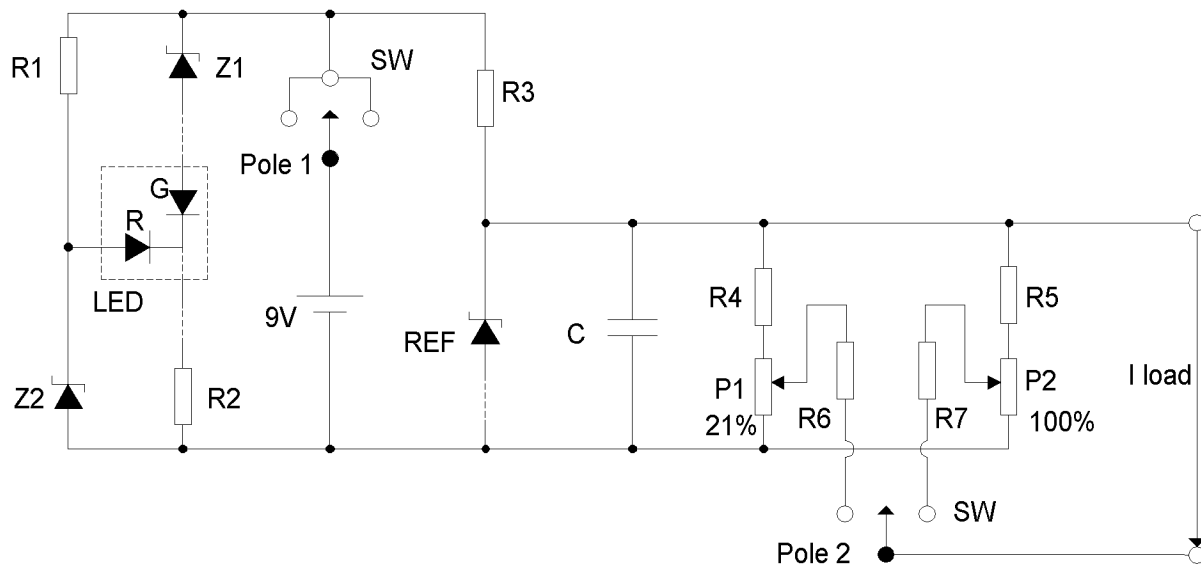


Oxycal Redesign : SW : 29-6-01.

For T7 fuel cell : Constant current source $0.4\mu\text{A} \pm 50\%$.



Components.

Z1 : 3.9V zener diode.
Z2 : 2.7V zener diode.
R1 : 220 ohms.
R2 : 220 ohms.
LED : Tricolour 3mm diameter.
R3 : 1k ohms.
R4 : 5k ohms.
R5 : 5k ohms.
R6 : 8.33M ohms.
R7 : 1.74M ohms.

Description.

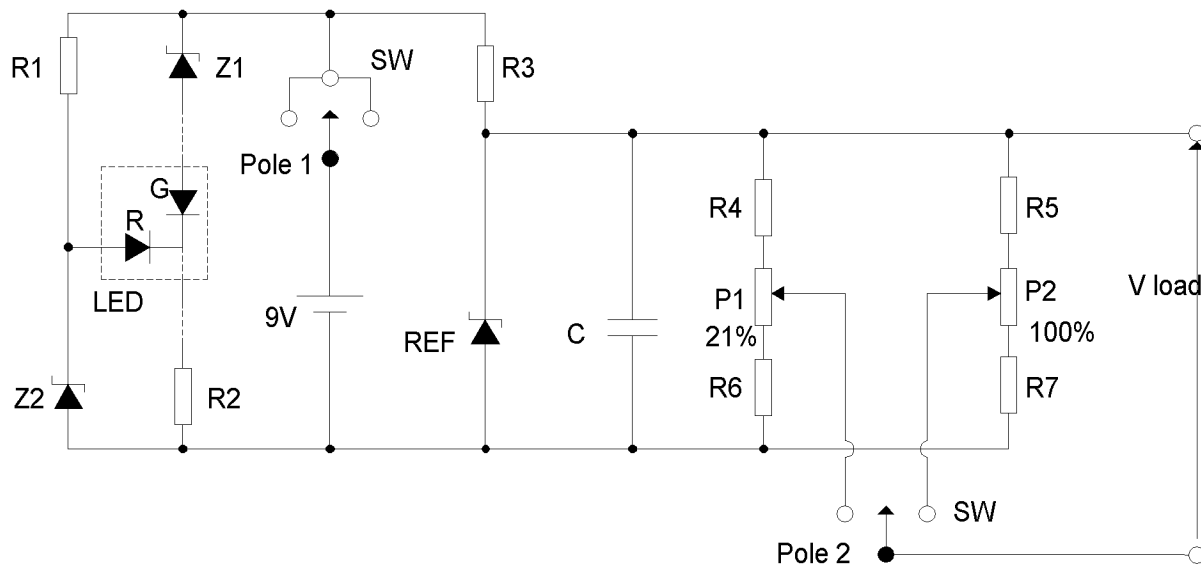
As original design except,

1. R4 & R5 ensure that P1 & P2 cannot be set such that current output is below $0.2\mu\text{A}$ & $0.96\mu\text{A}$ when switched to 21% & 100%.
2. R6 & R7 limit current output to maximum of $0.6\mu\text{A}$ & $2.87\mu\text{A}$ when switched to 21% & 100%.

Calculated values of load impedance that can be accommodated without exceeding the T7 cell output specification is up to 1.74M ohms when both P1 & P2 set to mid travel i.e. $0.4\mu\text{A}$ & $1.91\mu\text{A}$.

Oxycal Redesign : SW : 29-6-01.

For R17 fuel cell : Constant voltage source $10\text{mV} \pm 3\text{mV}$.



Components.

Z1 : 3.9V zener diode.
Z2 : 2.7V zener diode.
R1 : 220 ohms.
R2 : 220 ohms.
LED : Tricolour 3mm diameter.
R3 : 1k ohms.
R4 : 11.66k ohms.
R5 : 12k ohms.
R6 : 8.31M ohms.
R7 : 1.76M ohms.

Description.

As original design except,

1. R4 & R5 ensure that P1 & P2 cannot be set such that the voltage output is below 7mV & 33.5mV when switched to 21% & 100%.
2. R6 & R7 limit voltage output to maximum of 13mV & 62.2mV when switched to 21% & 100%.

Calculated values of load impedance that can be accommodated without dragging the output voltage down below the R17 output specification is 40k ohms and above when both P1 & P2 set to mid travel i.e. 10mV & 47.85mV.