

HV supply feedback networks for a 1.25V feedback voltage 20/10/11

Both result in nearly identical adjustment ranges of 40V - 404V, but the buffered version allows a much lower-value variable resistor to be used, making it possible to use a multiturn potentiometer, since these are commonly available in values such as 5k, 10k, 20k etc.

The slightly odd connection of the variable resistor ensures that, if the wiper ever loses connection with the track, the net result is to force the HV output voltage to a low value for safety. If the pot was simply used as a variable resistor, and feedback taken from the top of the grounded 31k or 330R resistor, then the HV output voltage would be forced high, which is not good.

The neon lamp lights whenever the HV output is >90V, providing some warning. The dotted line denotes a standard neon indicator lamp, complete with 100k resistor.

