

The amplitude of the output pulse signal is independent of the primary ionization, type and energy of the particles. The multiplication of ions by this process continues until there is a complete discharge along the whole length of the electrode, which gives rise to a sudden pulse of current in the external circuit. This current creates a potential difference across a large resistor R , which in turn reduces the potential of the central wire, thereby extinguishing the discharge and getting the tube ready for the next event. Operating of the counter in this region eliminates the need for a highly regulated (stabilized) power supply, which is the biggest advantage of the Geiger counter.