

Photocells

In the following I want to test the function of a photocell. As an example a 90CV is used.



The tube has no heater but only anode and cathode. Operating voltage is 50 V. The maximum current is 10 μ A.

For testing a new tube type "Photozelle" was created. It was defined that the G2-voltage is used as the anode voltage. The reason for this is that the G2-voltage source has a higher measuring resolution for the current than the anode voltage source. This way the minimal currents can be displayed at all.

The testing was done using manual mode at reduced room lighting. In darkness no current flows through the tube. When lighting the photocell with a torch a small amount of current flows. The current rating depends on the light intensity. At full intensity my tube has a current of 0.065 mA that is 65 μ A. In fact the current exceeds the limit of 10 μ A but at such a short test the tube will hardly be damaged.

