

## PHOTOELECTRIC – phototube on base

Cat: AP2330-001 Photo-tube

### DESCRIPTION:

Before the invention of Photo Diodes and Photo Transistors the only way that light could be measured was by using a “Photo cell” or a “Photo-tube”. These devices are sealed glass tubes with connection pins at one end to allow for insertion into a socket. Sometimes they were filled with an inert gas and sometimes they were evacuated. Inside the glass tube was usually a curved metallic cathode and a straight pin anode standing up in front of it.

The cathode was coated with a special Caesium and Silver alloy coating that made it easy for the Photons of light to knock electrons from the surface of the cathode. The flow of electrons from the cathode to the anode pin increases as the light increases. It is called the ‘Photo Current’ and this current was used to measure the amount of light falling on the cathode of the tube. The same devices were used as Photo Switches to operate alarms if a beam of light were broken and so on.

**AP2330-001 90CG Photo-tube on base**



**Physical size: 115x82x70mm LxWxH**

**Weight: 0.1 kg**

The 90CG gas filled tube runs normally at 90V.DC. applied to the anode / cathode circuit.

The dark current is less than 1uA. Bright current is usually above 200uA.

Wavelength is towards the red end of the spectrum and is good for incandescent lighting.

**Designed & manufactured in Australia**