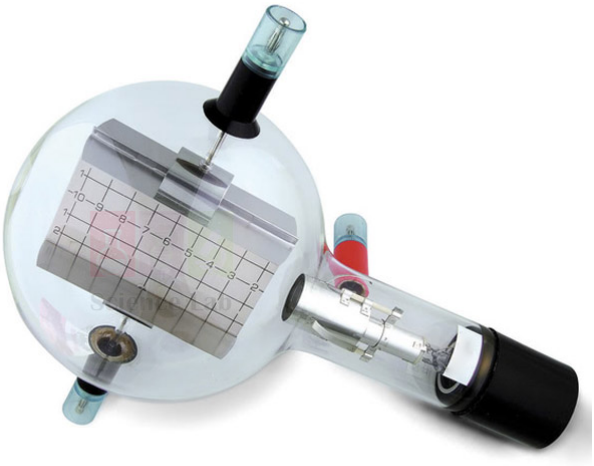
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Product Name :

Teltron Electron Deflection Tube D

Product Code :

SLE/PHY/44



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Description :

Teltron Electron Deflection Tube D (Product Code: SLE/PHY/44) is a highly evacuated electron tube used to show how electric and magnetic fields deflect an electron beam and to determinethe specific charge e/m in physics laboratories. Its fluorescent screen, approx. 90 x 60 mm, isinclined to the beam axis so the whole beam path is visible, and a built-in plate capacitor providesthe electric deflection. It is supplied by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**,Ambala, India.

Specifications

Parameter	Detail
Tube type	Highly evacuated, with focusing electron gun and inclined fluorescent screen
Filament voltage	6.3 V AC
Max. anode voltage	5000 V
Anode current	Approx. 0.1 mA at 4000 V
Max. capacitor voltage	5000 V
Fluorescent screen	Approx. 90 x 60 mm
Glass bulb	Approx. 130 mm diameter
Total length	Approx. 260 mm
Deflection	Electric: built-in plate capacitor; magnetic: Helmholtz coil pair D
Documentation	Instructions included
Product code	SLE/PHY/44
Supplied by	Jain Scientific Equipments Pvt Ltd (ScienceLab), Ambala, India

What Is the Electron Deflection Tube Used For?

With the Teltron Electron Deflection Tube D, students watch the electron beam trace a visible path across the inclined screen, then bend it with the electric field between the capacitor plates and with the magnetic field of the Helmholtz coil pair D. Adjusting the electric field until it exactly cancels the magnetic deflection straightens the beam again, and from the two field values the electron velocity and e/m can be calculated. This field-cancellation method makes it a core specific charge electron experiment for undergraduate physics.

Plan the power arrangement with the tube: it needs a 6.3 V AC filament supply and a high-voltage source for the anode and capacitor, each rated up to 5000 V. Mount the tube securely, use shrouded leads for every high-voltage connection, and let the filament warm up before raising the anode voltage.

Wha

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