

**AUXILIARY COIL**

The auxiliary coil can be used to apply crossed B-fields vertically with respect to the tube axis, if the coil is mounted on the universal holder between the Helmholtz coils. Such fields can be used to demonstrate the horizontal deflection of cathode rays in the Perrin tube (**P67-0550**) and, thus, the basic principles of a cathode-ray oscillograph.

Number of coil turns: 1000  
 Load rating: 2 A  
 DC resistance:  $R = \text{approx. } 7.2 \Omega$   
 Connection: via 4 mm jacks

**P67-0200** Auxiliary Coil**DEMOUNTABLE DISCHARGE TUBE**

For observing the phenomena occurring during electrical discharges in a gas in accordance with its pressure and type, cathode glow, positive column and canal rays. Either end of the discharge tube is equipped with a fluorescent screen.

Demountable design, installation in tube holder (**P67-0100**).  
 Includes a needle ventilation valve and vacuum hoses.

Length: 280 mm  
 Polarization voltage: = 5 kV  
 Discharge current: typically 1.2 mA  
 Connections: via 4 mm contact pins

**P67-0300** Demountable Discharge Tube**Required accessories:**

**P67-0100** Tube Holder  
**P67-1000** Lead Set  
**P58-6500** High-Voltage Power Supply, 5kV  
**C54-6120** Rotary-Vane Pump

**PLANAR DIODE**

For investigating the Edison effect (thermionic effect) representing emission currents as a function of the filament power of the hot cathode. Recording the characteristics of diodes and demonstrating their application as rectifiers is possible. Also intended for determining specific charge  $e/m$  by means of the magnetron method (with Helmholtz coils **P67-0150**).

Cathode filament voltage:  $U_f = 7.5 \text{ V}$ ,  $I_f = \text{approx. } 3 \text{ A}$   
 Anode voltage:  $U_a = 300 \text{ V}$   
 Anode current: typically  $I_a = 6.0 \text{ mA}$  at  $U_f = 7.5 \text{ V}$ ,  $U_a = 300 \text{ V}$

**P67-0350** Planar Diode**Required accessories:**

**P67-0100** Tube Holder  
**P67-1000** Lead Set  
**P58-6000** Power Supply, 360 V, multi output



P67-0300



P67-0350 &amp; P67-0400