

## U207001-230 - Millikan's Apparatus (230 V, 50/60 Hz) Order code: 5401.1018884



Cena bez DPH

2.980,00 Eur

Price with VAT

3.605,80 Eur

Parameters

Compact apparatus for demonstrating the discrete nature (quantisation) of electric charge and for determining the elementary charge of an electron. Comprising an experiment chamber kit for assembly with plate capacitor and connected oil atomiser, lighting unit with two green LEDs, measuring microscope, voltage adjustment knob and switch to set the capacitor voltage, switch for starting and stopping rise and fall time measurements and a display unit with touch screen. Measurements can be made using the floating method or the rising and falling method. Measured rise and fall times for a charged droplet of oil are displayed on the touch screen along with the configured voltage. Parameters relevant to the evaluation of the results, temperature, viscosity and pressure are also displayed. Includes plug-in power supply, 12 VAC, 1 A.

**Dimensions** (including measuring microscope). 370 x 430 x 235 mm<sup>3</sup>

**Weight**(including plug-in power supply): 4.3 kg approx.

#### **Contents:**

- 1 Basic apparatus with experiment chamber and display unit
- 1 Measuring microscope
- 1 Oil atomiser
- 50 ml of oil for Millikan's apparatus
- 1 Plug-in power supply, 12 VAC, 1 A

#### **Experiment Topics:**

- Millikan's experiment
- Discrete nature (quantisation) of electric charge
- Elementary electric charge
- Charged oil droplets in an electric field
- Stokes viscous drag, weight, buoyancy
- Equilibrium voltage
- Velocity of fall and velocity of rise

#### **Advantages:**

- Compact instrument with built-in measurement and display unit
- Touch-sensitive screen for simple and ergonomic operation
- Maintenance-free lighting unit for uniform lighting via two green LEDs
- Built-in pressure and temperature sensor for automatically determining the relevant parameters, temperature, viscosity and pressure