COULOMB'S LAW

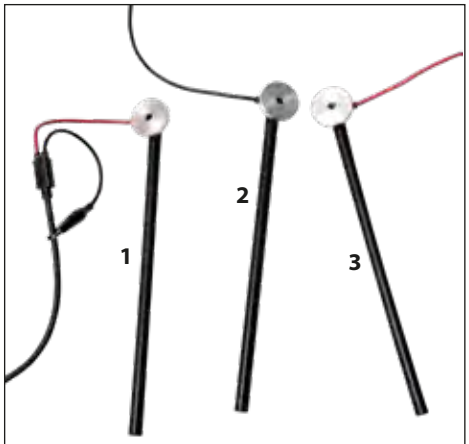
REEE14-V

Description

In this experiment you will measure the charge (Q) on a metal sphere as a function of the high voltage (V) and investigate the electrostatic force (F) between two charged spheres as a function of the distance (d) between them. Using the measured force and charge, you can determine the electric permittivity of free space experimentally and compare it to the expected value.

ST-0208-00 Charge Spheres

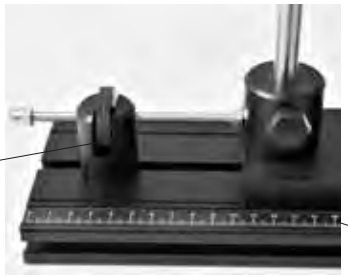
- *Diameter: 76 cm*
- *Material Type: Stainless Steel*



1) **EE-0154-00 Charge Measuring Probe**
2) **EE-0022-00 Discharging Probe**
3) **EE-0021-00 Charging Probe**

ST-0111-00 Sphere Holder Apparatus

The Vernier Force Sensor attached to sphere measures the Coulomb Force.



ME-0039-00 Distance Adjusting Mechanism

Distance between the two spheres can be adjusted to submillimeter accuracy.

Distance (d) between the two spheres is measured by stripped ruler on bench and manually entered into LabQuest® 2

Order Information

Item Code	Item Name
ST-0208-00	Charge Spheres (2 Pcs)
ST-0175-00	Bench (60 cm)
ST-0206-00	Sphere holders with bench slider (2 Pcs)
ST-0111-00	Sphere Holder Apparatus
EE-0021-00	Charging Probe
EE-0022-00	Discharging Probe
EE-0154-00	Charge Measuring Probe
ME-0039-00	Distance Adjusting Mechanism
EE-0120-02	Connection Cable (20 cm)
CRG-BTA	Charge Sensor-Vernier (required, not included)
ZMSC136X	Vernier Electrostatic Voltage Source (required, not included)
DFS-BTA	Vernier Dual-Range Force Sensor (assembled to set)
LABQ2	LabQuest® 2 (required, not included)

Required Units

Charge Sensor
CRG-BTA

Dual-Range Force Sensor
DFS-BTA

Electrostatic Voltage Source

LabQuest® 2
LABQ2

Productos disponibles en Cienytec.com