KIT FOR GENERAL ELECTRICITY
DL 2160

The kit is composed of a set of components and devices that allow a practical demonstration of the most important laws of electricity and electromagnetism.
All the components are mounted on metal or plastic bases complete with terminals for an easy connection of the test circuits through multiple jack cables.

The kit is supplied with a manual that outlines the different subjects of the practical exercises in a simple and progressive way. It is to be underlined the importance of the suggested method, which is based on the direct observation and quantification of the phenomena to highlight the fundamental scientific laws. Due to the simplicity of its components and to the guided testing procedures contained in the manual, this kit is suitable for courses both in electrophysics and electrical engineering. The tests can be carried out by students under full safety conditions.

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ELECTRONICS

Example of performable exercises

- Compass
- Magnetic field
- Magnetic flux and induction
- Electromagnetism
- Magnetic circuits
- Hysteresis cycle
- Electric motor
- Electrodynamic actions
- Electromagnetic induction
- Faraday's law
- Lenz's law
- Emf of self induction
- Emf of mutual induction
- Electric current
- Direct current
- First law of Kirchhoff
- Electric current intensity
- Electromotive force (emf) of a generator
- Difference of potential or electric voltage
- Ohm's law
- Electric resistance
- Electric resistivity
- No-ohmic resistor
- Voltage drop
- Internal resistance of a generator
- Series and parallel generators
- Series and parallel resistance
- Electric power and energy
- Potentiometer
- Current shunt
- Second law of Kirchhoff
- Analysis of an electric network through Kirchhoff's laws
- Mesh currents
- Effect superposition
- Thevenin's theorem
- Electric efficiency
- Norton's theorem
- The relay
- Joule effect
- Thermoelectric effect
- Thermocouple
- Eddy currents
- Electric field
- Capacitors, capacitance
- Single phase alternate current
- Pure resistance
- Pure inductance
- Pure capacitance
- Phase shift between two signals
- Series RL and RC circuits
- Active, reactive and apparent power
- Series resonance
- Inductive reactance depending on frequency
- Capacitive reactance depending on frequency
- Parallel RL and RC circuits
- Series and parallel capacitors
- Parallel resonance
- Miniature transformer
- Electrolytic dissociation and conduction in solutions

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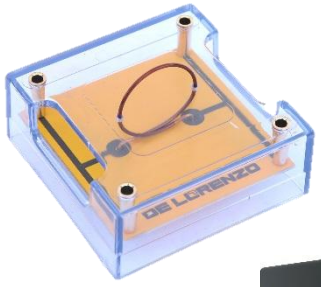
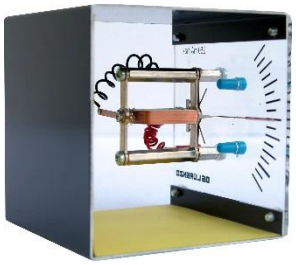
ELECTRONICS

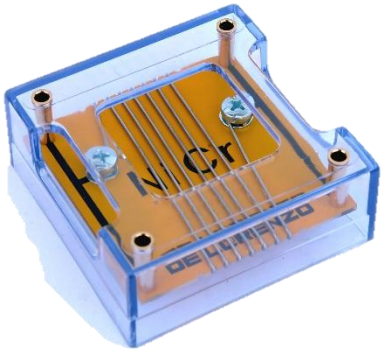
List of components

- Resistance, 12Ω, 5W
- Resistance, 120Ω, 5W
- Resistance, 220Ω, 5W
- Resistance, 330Ω, 5W (2 off)
- Resistance, 1kΩ, 2W
- Resistance, 2.7kΩ, 2W
- Battery, 1.5 V with battery-holder (2 off)
- Lamp, 24V, 21W with lamp-holder
- Lamp, 24V, 10W with lamp-holder
- Lamp, 24V, 5W with lamp-holder
- Magnets (pair)
- Compass
- Rectilinear conductor
- Iron filing
- Turn
- Movable turn
- Solenoid
- Coil, 500+500 turns
- Inductance
- Transformer, 20/10V, 2VA
- Moving iron instrument





- Power supply
- Iron core
- Aluminum core
- Iron cylinder
- Capacitor, 1µF
- Capacitor, 2.2µF
- Capacitor, 3.3µF
- Parallel wires
- Moving coil instrument
- Hot wire instrument
- Thermocouple
- Braking pendulum
- Switch
- Resistance NiCu (constantan)
- Resistance NiCr (nickel-chrome)
- Potentiometer 1k
- Relay
- Glass with mixer
- Stainless steel electrode
- Brass electrode
- Copper sulphate
- Set of leads
- Multimeters



The kit includes power supply unit

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