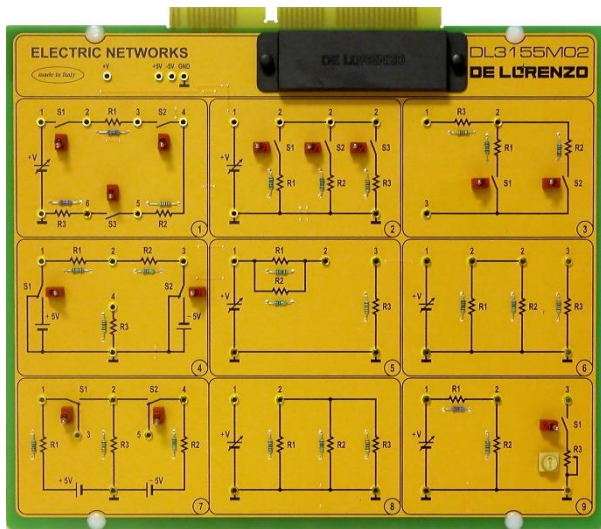# ELECTRIC NETWORKS



## DL 3155M02

The design and construction of electronic circuits to solve practical problems is an essential technique in the fields of electronic engineering and computer engineering.

With this board, the students can study the laws of Kirchhoff's current and voltage, the superposition of the effects, voltage dividers and verify the most common basic theorems in electronics such as Thevenin, Norton and Millman.

## THEORETICAL TOPICS

- Elements of an electrical network: node, arm, mesh
- First Kirchoff principle
- Second Kirchoff principle
- Series resistances
- Parallel resistances
- Series - parallel connection
- Voltage dividers
- Theorem of the effect superposition
- Thevenin theorem
- Norton theorem
- Millman theorem
- Fault simulation

## CIRCUIT BLOCKS

- Series resistors and Kirchoff voltage law verification
- Parallel resistors and Kirchoff current law verification
- Series - parallel resistors
- Effect superposition
- Thevenin theorem
- Norton theorem
- Millman theorem
- Voltage divider

Complete with theoretical and practical manual.
Dimensions of the board: 297x260mm

**CAI SOFTWARE:**
Each board of the TIME system can be supplied complete with a Student Navigator software that allows students to perform their learning activities through a Personal Computer, without the need for any other documentation.
**Ordering code**: please add SW after the code of the board (i.e. DL 3155M02SW)

**Required:**
**POWER SUPPLY NOT INCLUDED**
Base frame with power supply (completed with connecting cables):
➤ **DL 3155AL3** - Base frame with power supply and interface to pc and virtual instrumentation
➤ **DL 3155AL2** - Base frame with power supply and interface to pc

Basic power supply (connecting cables not included):
➤ **DL 2555ALF -** DC power supply ±5 ±15 0±15 Vdc, 1A
➤ **TL 3155AL2 -** Connecting cables
Choosing this power supply, for the execution of the experiments, it is normally required the use of an oscilloscope and two multimeters.