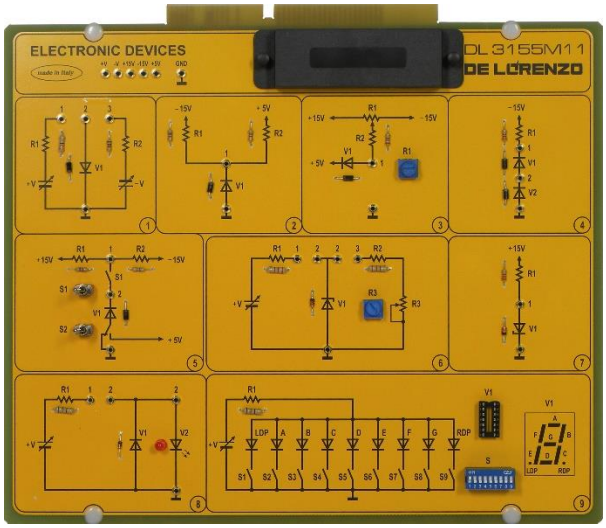
TIME ELECTRONIC BOARDS

ELECTRONIC DEVICES



DL 3155M11

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 properties of the pure and doped semiconductor material, the properties and the electric behaviour of a joint P-N and how a joint P-N is realized to be able to describe with the right terminology the joint P-I behaviour.

THEORETICAL TOPICS

- Physics of the semiconductors and joint P-N
- Semi conductive material
- Formation of a joint P-N
- Polarization of a joint P-N
- The ideal diode and the real diode
- Diode in dc circuits
- Check of the integrity of a diode through an ohmmeter
- Direct polarization
- Inverse polarization
- The Zener diode
- The diode as stabilizer
- The LED diode

CIRCUIT BLOCKS

- Direct and inverse polarization of a diode
- Voltage at the diode ends
- Minimum and maximum voltages
- Minimum and maximum voltages with series connected diodes
- Characteristics of the Zener diode
- Zener diode as a voltage stabilizer
- Voltage value on a Zener diode
- Characteristics of a LED diode
- Seven segment digital display

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 3155M11SW)

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.