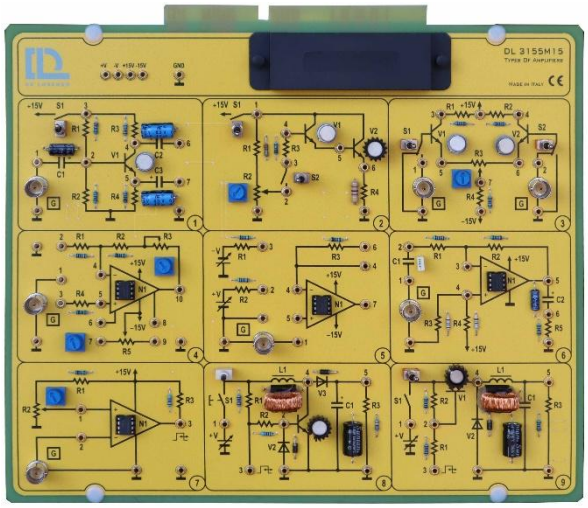
TYPES OF AMPLIFIERS



DL 3155M15

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 different configurations of an amplifier using the most common electronic devices as the transistor BJT Phase separator, Darlington, Differential, Step-up and Step-down Convertors) and the operational amplifier(Voltage follower, V/I and I/V Invertors and PWM modulator).

THEORETICAL TOPICS

- Phase inverter or buffer circuit
- Darlington configuration amplifier
- Differential amplifiers
- Operational amplifiers
- Inverting configuration
- Non-inverting configuration
- Voltage follower
- Offset voltage
- Slew-rate
- I/V and V/I converters
- Single supply operational amplifiers
- Switching amplifiers
- Power amplifiers
- Switching operation
- PWM modulator
- Converter or electronic switch
- DC-DC converter
- Fault simulation

CIRCUIT BLOCKS

- Phase separator
- Darlington connection amplifier
- Differential amplifier
- Operational amplifier: reduction of the offset voltage, inverting and non-inverting configuration, and slew-rate
- Voltage follower
- Voltage-current converter
- Current-voltage converter
- Single supply operational amplifier
- PWM modulator
- Step-up DC-DC converter
- Step-down DC-DC converter

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

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ELECTRONICS

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 3155M15SW)

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.

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