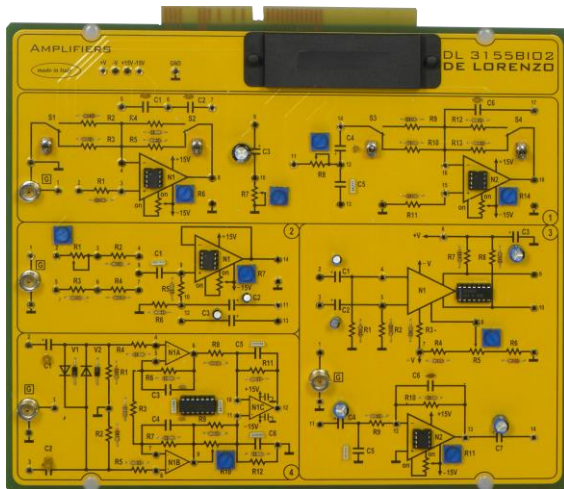




AMPLIFIERS



DL 3155BIO2

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

The electrical signal, generated by sensors, is usually at a low level of amplitude and power, so that it is necessary to amplify it before its transfer, further analogue or digital processing and visualization. In this course we will study the characteristics of the pre-amplifiers and amplifiers for the processing of biomedical signals.

THEORETICAL TOPICS

- Inverting and non inverting configuration of an OP. AMP. at low and high voltage gain
- Differential Amplifier: differential gain and frequency function
- Study of the input and output impedances
- Pre-amplifiers
- Differential amplifier for the instrumentation

CIRCUIT BLOCKS

- Amplification of biomedical signals
- The ideal operational amplifiers
- The real operational amplifiers
- Preamplifier and main amplifier
- Evaluation of the CMRR

Complete with theoretical and practical manual.

Dimensions of the board: 297x260mm

This board does not substitute the medical device under study. The results of the experiments have no medical value. They are just for demonstration purposes.

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 3155BIO2SW)

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 $\pm 5 \pm 15$ Vdc 0 ± 15 Vcc, 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.

