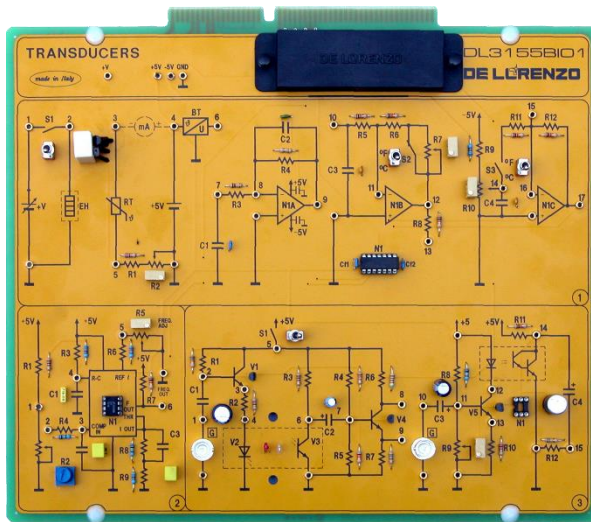




TRANSDUCERS



DL 3155BIO1

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

This block deals with biomedical sensors and transducers. The classification criterion that has been used in this course for the sensors and the transducers is based on their physical operation principle.

Resistive, optical or photoelectrical sensors and transducers, used in the temperature data and optical signals acquisition, are studied in this board.

THEORETICAL TOPICS

- The bio-engineering and the biomedical instrumentation
- Biomedical signals
- Measurement systems of biomedical signals
- Characteristics of the transducers
- The temperature sensors
- The optical and opto-electronic sensors

CIRCUIT BLOCKS

- Temperature sensors
- °C/°F converter
- U/f transducer
- Photodiode
- Phototransistor
- Optocoupler

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 3155BIO1SW)

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.

