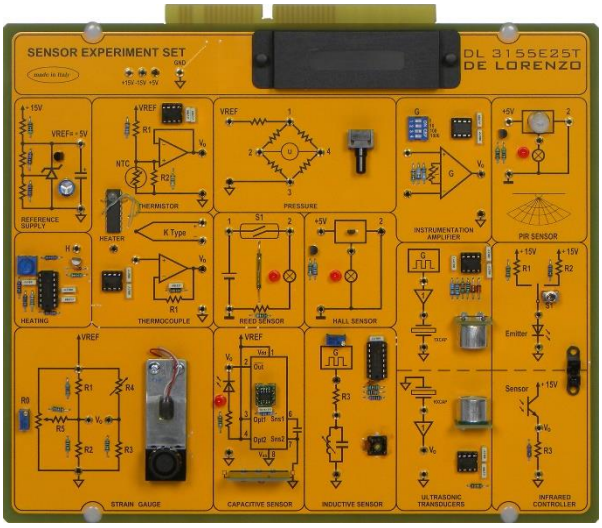
# TIME ELECTRONIC BOARDS

## SENSOR EXPERIMENT SET




**DL 3155E25T**

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 learn to use a wide range of sensors such as those of temperature, of pressure, P.I.R., magnetic, Hall sensor, strain gauge, capacitive, inductive, ultrasonic and infrared sensors.

### THEORETICAL TOPICS

- Measurement of the temperature through a thermistor
- Measurement of the temperature through a thermocouple
- Applications of the Wheatstone
- Types of fluid pressure measurements
- Absolute pressure sensor
- Gauge pressure sensor
- Differential pressure sensor
- Pressure transducers
- Passive Infrared Sensors (PIRS)
- Hall's effect and Hall's potential difference
- Measurement of the deformation through a strain gauge
- Capacitive sensors
- Inductive proximity sensors
- Ultrasonic transducers
- Reception of ultrasonic signals
- Infrared transmission and controller

### CIRCUIT BLOCKS

- Measurement of T through a thermistor
- Measurement of T through a thermocouple
- Pressure Sensor
- P.I.R. Sensor
- Magnetic switch
- Hall sensor
- Measurement of the deformation through a strain gauge
- Use of the capacitor sensor
- Inductive sensor
- Transmission and reception of ultrasonic signals
- Infrared transmission and reception

Complete with theoretical and practical manual.

Dimensions of the board: 297x260mm

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**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 3155E25TSW)

**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 2555ALG -** DC power supply ±5 ±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.