

TESTING MODULE FOR PHOTOPLETHYSMOMETER AND MEASUREMENT OF RESPIRATION FREQUENCY

Mod. EB-B7/EV

INTRODUCTION

EB-B7/EV is one of the modules that constitute the Interactive Practical Electronics System – I.P.E.S for the study of Biomedical Equipment.

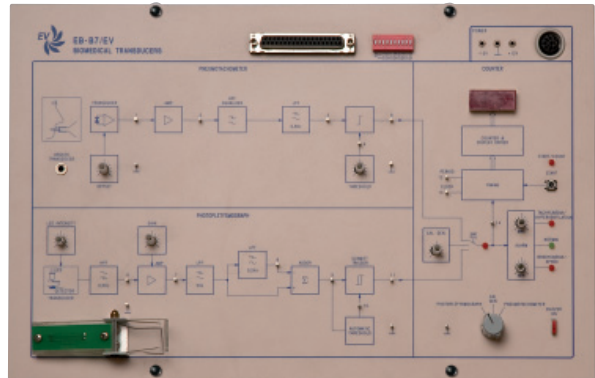
It consists of a set of components and circuits used in biomedical equipment.

For the lessons development, the module operates in computerized mode, by means of the interactive software version of the handbook SWBB-B7/EV and the Unit mod. GAU/EV. The software inserts circuit variations and faults automatically, enabling the development of the lessons, even without the teacher's assistance.

EB-B7/EV

The module enables to acquire the cardiac rhythm by using a pair of optical transceiver transducers.

As the patient introduces a finger in the optical path, the cardiac rhythm is automatically recorded and displayed on a two-digit screen. It is also possible to record the respiratory rhythm in a non-invasive way by using a temperature transducer placed before the patient's mouth. The minimum and maximum values can be set as parameters in the acquisition section to detect alarm situations (MIN-MAX interval).



TRAINING PROGRAM:

- The circulatory system
- The respiratory system
- Transducers and actuators
- Immunity to radiative noises
- Event counter with time delays
- Filters and amplification
- Comparing the frequency of measured events (heartbeat and respiratory acts)
- Thresholds, intervals and min./max. limits
- Thresholds and alarms
- Display

TECHNICAL SPECIFICATIONS:

- Transmission LED / phototransistor for photoplethysmometer reception
- Diode sensor of air flow
- 3-digit / 7-segment display of heart rate
- Calibration of photoplethysmometer / respiratory rate
- 2-mm interconnection and test points
- Jumpers for quick circuit modifications
- Fault simulation
- 37-pin connector for Interface Unit GAU/EV
- 8-way connector for Power Supply Unit
- Printed circuit board with protective treatment and silk-screen printed mimic diagram

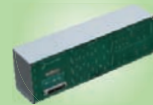
Dimensions: 386 x 248 x 40 mm

REQUIRED



POWER SUPPLY UNIT
PS1-PSU/EV
- NOT INCLUDED -

POWER SUPPLY
±12 Vcc – 0,5A



BIOMEDICAL SIGNAL GENERATOR/ACQUISITION AND FAULT INSERTION UNIT - MOD. GAU/EV
SOFTWARE SWBB-B7/EV
- NOT INCLUDED -



PERSONAL COMPUTER
- NOT INCLUDED -

INSTRUMENTS - NOT INCLUDED -
- MULTIMETER
- OSCILLOSCOPE

SUPPLIED WITH

STUDENT HANDBOOK: THEORY AND EXERCISES
TEACHER HANDBOOK: WIRING DIAGRAMS AND SOLUTIONS OF EXERCISES



OPTIONAL

MODULE HOLDER - BOX/EV

