

TESTING MODULE FOR OPTICAL FIBERS AND OPTOELECTRONIC COMPONENTS

Mod. EB-B6/EV

EB-B6/EV

The applications of optoelectronic devices in medicine are very wide. A lot of instruments of analysis laboratory operate on the basis of the different light absorption capacity of an analyzed substance or solution, according to the various constituent substances. It is possible to determine their concentration by induced or automatic procedures. The instruments applying these principles are photometers, colorimeters and spectrophotometers.

Moreover, optical fibers are used in endoscopes, in devices for lighting internal organs and tissues, and in other applications where fibers are used to transfer signals (ECG, EEG, ...) with complete electronic decoupling.

The module enables to study and apply the basics of optical fibers and optoelectronic components used in biomedical equipment.

TRAINING PROGRAM:

- Light radiation and measurement of its intensity
- Optoelectronic devices: LED (Light Emitting Diodes), liquid crystals and laser
- Optoelectronic photodetectors
- Opto-coupling systems
- Light and measurement transducers
- Optical fibers
- Light transmission on optical fibers

TECHNICAL SPECIFICATIONS:

- Red, green and yellow LEDs
- Photodiodes
- Phototransistors
- Transistor optocouplers
- Optical fiber connectors, snap-in type =660 nm
- Optical fiber \varnothing 1000 μ m – 3 m
- 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

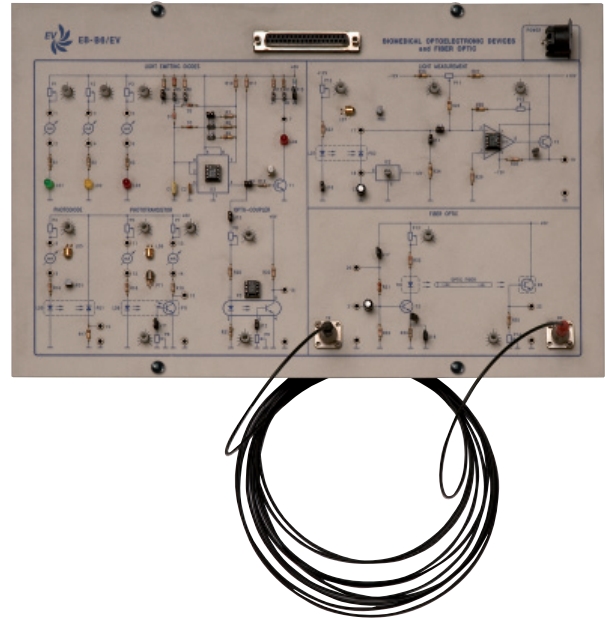
Dimensions: 386 x 248 x 40 mm

INTRODUCTION

EB-B6/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-B6/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.

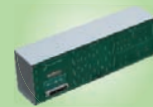


REQUIRED



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

POWER SUPPLY
 ± 12 Vcc – 0,5A
 $+5$ Vcc – 2A



**BIOMEDICAL SIGNAL GENERATOR/ACQUISITION
AND FAULT INSERTION UNIT - MOD. GAU/EV**
SOFTWARE SWBB-B6/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

