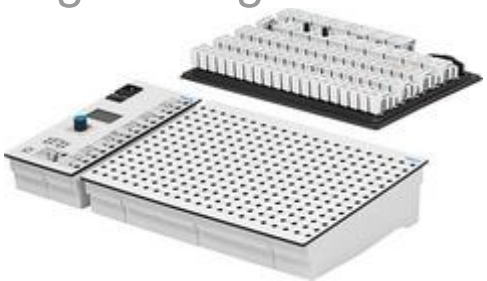
Equipment set TP 1011: Fundamentals of electrical engineering/electronics



The basis of everything – Electrical engineering and electronics

The universal patch panel of this training package uses the proven 19 mm grid. The universal patch panel and basic power supply unit, which provides a function generator among other things, form the basis on which the digital and control technology component sets can be used.

With the component set, all basic tests of DC, AC and semiconductor technology can be performed and basic electronic circuits can be examined. The storage panel, with its clearly labelled slots, provides order and structure.

The equipment set variant TP 1011 M additionally contains a measuring module integrated in the power supply unit and the necessary measuring leads, adapters, and the PSURemote software.

On the safe side!
The system is completely equipped with safety plugs and sockets based on state-of-the-art technology.

This applies to all electrical connections – whether on the components or devices. The equipment set is therefore ideal for use in any laboratory, even if there are high voltages present. Safety first!

Easy to connect!
Safety plugs at the bottom, safety sockets at the top – each component has double the connections.

As a result, measurements can be taken at any time without having to modify the circuit, and parallel connections are easy to establish.

Training content

- **Direct current**
  Voltage, current, resistance, conductance, Ohm's law, using measuring devices, energy and capacity, series and parallel connections, voltage dividers, non-linear resistors, bridge circuit, voltage source
- **Alternating current**
  Electric field, induction, capacitor and coil in DC and AC circuit, series and parallel circuits, active resistance, reactance and impedance, phase shift of current and voltage
- **Semiconductors**
  Semiconductor diode, Zener diode, LED, bipolar transistors, unipolar transistors, diac, triac, thyristor
- **Basic electronics circuits**
  Transistors and basic circuits, multi-level amplifiers, power amplification, differential and direct current amplifier, impulse and saw tooth generators, sine wave generators, power supply unit circuits

Also order:

Workbooks

The exercises contain concrete, realistic projects with problem descriptions, parameters and project tasks.

In addition to the basic principles of electrical engineering, the workbooks also thoroughly explain the function of the components, their characteristic values and the basic circuits typical for the components.

The workbooks contain:

- Sample solutions
- Educational instructions
- Multimedia CD-ROM with graphics
- Worksheets for learners

The worksheets support the learner in the information and planning phase as well as with execution, monitoring and documentation.