



Specifications

Control power source	Voltage: 0 V to +10 V (50 mA max.), 0 V to -10 V (0.1 mA max.) Current: 0.01 to 10 mA (3 steps)
Power supply	AC 100/117/220 V, 50/60 Hz, 5 W (typical)
Size and weight	340 (W) X 240 (H) X 80 (L) mm, 3 kg
Operating temperature	0° to 50°C, 90% RH

ITF-05

Semiconductor Training Kit

The ITF-05 kit is used to master two-terminal and three-terminal semiconductors, by focusing on the operation and characteristics of various semiconductor devices.

Characteristics:

- This is a general-use training kit that allows various two-terminal and three-terminal semiconductor devices to be measured.
- A variable source (current and voltage) controlling the control electrodes (transistor gate, FET gate, SCR gate, etc.) of three-terminal semiconductors is integrated, reducing the need for external sources when performing the same kind of training in a single session.
- The self-contained voltage source allows mastery of two-terminal power semiconductors.
- AC measurement of the h parameter is possible in transistor training.
- Protection from short-circuits, miswiring, etc. is built into the unit.

Learning items:

- Characteristic (voltage and current) measurement of two-terminal devices (measurements: diode, zener diode, selenium rectifier, varistor, thyristor, etc.)
- Characteristic (voltage, current and various parameters) measurement of three-terminal devices.
- Transistors (static characteristic and h parameter (AC overlapping))
- FET (static characteristic, amplitude and impedance)
- SCR (static characteristic)



Specifications

Frequency measurement	1 MHz max.
Counting time	1 ms, 10 ms, 0.1 s, 1 s
Period measurement	1 ms to 10 s
Time base	1 ms, 10 ms
Number of periods	1, 10, 100
Time interval measurement	1 ms to 1000 s
Time base	1 ms, 10 ms, 0.1 s, 1 s
Frequency ratio measurement	f1: 1 MHz max., f2: 1 MHz max., Magnification: 1X, 10X, 100X Capacity: 999, Resolution: 1 μ s
Totalizing	
Input sensitivity	0.1 Vrms
Display of digits	3 digits
Power supply	AC 100/110/117/200/220/234 V, 50/60 Hz, 20 W
Size and weight	450 (W) X 330 (H) X 80 (L) mm, 5.5 kg
Operating temperature	0° to 50°C, 90% RH

ITF-06

Counter Circuit Training Kit

By studying circuits on the ITF-06 kit's panel and then combining them, the basic operation of an electronic counter can be understood.

Characteristics:

- Each circuit element is indicated graphically on the panel for easy understanding.
- Each circuit element has input/output terminals, allowing for easy circuit configuration for each function.
- Training for 5 functions can be performed (frequency measurement, period measurement, time interval measurement, frequency ratio measurement, totalizing measurement)

Learning items:

- Frequency measurements
- Period measurements
- Time interval measurements
- Frequency ratio measurements
- Totalizing measurements