



Trig-Tek™ 45EMD Portable Calibrator

The Trig-Tek™ 45EMD Portable Calibrator is designed to provide precision signals for field calibration of measurement instrumentation.

Key Features

- Laboratory accuracy
- 10 to 9999 Hz (XTAL)
- Set mV or pC level from 0.1 to 999.9 with a 0.1 resolution or from 1 to 9999 with 1 resolution
- Differential pC output
- Square wave output
- Adjustable DC offset

Product Information

The Trig-Tek™ 45EMD Portable Calibrator is a convenient signal generator and is especially useful for field testing of monitoring systems.

It has the required outputs to simulate a variety of pickups, temperature pressure, vibration (acceleration, velocity or displacement), or it can be used in a laboratory as a precision signal source.

The 45EMD hand-held unit generates the required outputs to simulate a variety of transducers, including temperature, pressure, and vibration with laboratory accuracy. It is powered by a rechargeable NICAD battery and will operate for up to eight continuous hours on a single charge.

The 45EMD's output frequency is crystal controlled and accurate to 0.05%.

Frequency is selectable from 10 to 999.9 Hz with 0.1 Hz resolution or 100 to 9999 Hz with 1.0 Hz resolution.

A four-digit thumb switch and a "X1-X10" switch allow "pC" or "mV" level to be set from 0.1 to 999.9 with a 0.1 resolution or from 1 to 9999 with 1 resolution.

Selectable output units include "DC," "PK," "Pk-Pk," or "RMS." The "mV" output signal is on a BNC; the "pC" output is on a Microdot connector; and the differential (DIFF) pC output is on a three-pin connector.

A DC offset voltage with selectable polarity can be superimposed on the AC outputs. Additionally, a constant 1 V synchronous Square wave output is provided.

A DC offset voltage can also be superimposed on the AC output signals. This is accomplished by an "X1-OFF-X10" switch to allow settings from 0 to 1.2 and 0 to 12 V with a single turn control. The polarity of the "Offset" can be selected by the "+" or "-" switch.

A battery charger is included, and a carrying case is optional.

Specifications

Note: The Astronics Test Systems policy is one of continuous development and improvement. Consequently, the equipment may vary in detail from the description and specifications in this publication.

Frequency

Range

- 10 to 9999 in two ranges (usable to 1 Hz)

Accuracy

- $\pm 0.05\%$

Resolution

- 0.1 Hz X1 range 10.0 to 999.9 Hz
- 1 Hz X10 range 100 to 9999 Hz

Amplitude

The mV output is converted to pC at the pC output; the frequency is the same; the pC level is the same as the mV $\pm 0.3\%$.

Impedance

- mV <50 Ω pC 1000 pF capacitor

AC Accuracy

- 10 to 9999 Hz
 $\pm 0.5\%$ of reading $\pm 0.3\%$ FS (for set outputs)
- Square wave: 5 V_{pk-pk} ± 0.5 V

Distortion

- <1% (30 to 9999 Hz)

DC Accuracy

- $\pm 0.5\%$ of setting $\pm 0.2\%$ FS

Interface

Power

- 120 or 230 VAC battery charger
- 9 VDC at 200 mA output

Mechanical

Dimensions

- 4.75" W x 6.5" H x 2" D (12.1 cm x 16.5 cm x 5.1 cm)

Ordering Information

408313-001 : Trig-Tek 45EMD

Portable Calibrator with battery charger

