Specifications

(Reference temperature: 23°C ± 1°C)

Operating Modes:

Sine - Square - Triangle - DC
Free running, internal sweep, or external frequency modulation, with or without DC Offset

Frequency Range:

Total Range: 0.05Hz to 5MHz (8 Decade Steps)
Variable Frequency Adjustment: x0.09 to x1.1 (12:1)
Frequency Stability: <0.5%/h or 0.8%/day at constant ambient temperature (medium frequency control position)

Waveform Characteristics:

Sine Wave Distortion
0.05 Hz to 100kHz: max. 0.5%
0.1 MHz to 0.5MHz: max. 1.5%
0.5 MHz to 5MHz: max. 3%
Square Wave Rise Time: typ. 15ns
Overshoot: <5% (when output is terminated with 50Ω)
Triangle Non linearity: <1% (up to 100 kHz)

Display:

Frequency: 4 digit LED display; 8x5mm each
Accuracy: up to 5 Hz; ±(1% + 3 digit)
5Hz to 5MHz: $\pm(5x10^{-5}$ + 1 digit)
LED: Indicator for mHz, Hz and kHz

Outputs:

Signal Output(short circuit proof)**:**
Impedance: 50 Ω; protected against ±45Vdc max.
Output Voltage: $10V_{pp}$ into 50Ω; $20V_{pp}$ open circuit
Attenuation: max. 60dB
2 steps: 20dB ± 0.2dB each
variable: 0 to 20dB
Amplitude Flatness(sine/triangle)**:**
0.5Hz to 0.5MHz: max. 0.2dB
0.5MHz to 5MHz: max. 0.5dB
DC-Offset: variable (switchable)
Offset range: max. ± 2.5V into 50Ω
max. ± 5V open circuit
Trigger Output: +5V / TTL compatible
square wave synchronous to signal outputs.

FM Input (VCF, requires HO801):

Frequency Change: approx. 1:100
Input Impedance: 6kΩ II25pF
Protection Voltage: ± 30V max.
Internal Sweep:
Sweep Speed: 20ms to 15s
Sweep Range: approx. 1:100

General Information:

Operating Conditions: +10°C to +40°C
max. relative humidity: 80% (no condensation)
Supply (from HM8001-2)**:** +5V/200mA
+16V/300mA; –16V/250mA (P = 9,8W)
Dimensions (without 22 pin flat connector):
W 135, **H** 68, **D** 228mm
Weight: approx. 800g

Values without tolerances are meant to be guidelines and represent characteristics of the average instrument.

Function Generator HM8030-5

- **Frequency Range 0.05Hz to 5MHz**
- **Digital Frequency Readout (4 digit)**
- **Waveforms: Sine, Square and Triangle**
- **DC Offset Adjustment, Trigger Output**
- **Internal Sweep and External FM Modulation Input**
- **Fast Square Wave Rise Time (typical 15ns)**
- **Distortion Factor <0.5% (up to 100kHz)**

The **HM8030-5** Function Generator is a versatile signal source useful for many stimulus and test applications. The key features are the high **signal purity** and **constant amplitude flatness** throughout the entire frequency range. This instrument is ideal for a broad range of test bench use including precision audio measurements.

The generator produces 3 basic waveforms: **sine**, **square** and **triangle**. The square wave output has a very fast, rise time **<15ns**, exceptional for function generators with 5MHz. The output frequency can be **swept internally** and **externally**. This is ideal for examining transmission curves of a circuit under test using an oscilloscope as a measurement indicator. All outputs are **electrically protected** against **short circuits** and accidentally applied voltages of up to **±45V**. This is a very useful instrument feature, particularly in educational applications.

Frequencies are indicated on a **4 digit LED display**, making **accurate and precise** frequency setting possible with a maximum **resolution 1mHz** in the **5Hz** range. The measurement time is a constant quarter second over the entire frequency range. The **HM8030-5** Function Generator offers precision and multifunctional qualities. This makes the instrument ideally suited for laboratory and educational use.

Accessories supplied

Operators Manual

Optional accessories

BNC test cable HZ33, HZ34
50Ω through termination HZ22

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