Specifications

(Reference Temperature: 23°C ± 1°C)

Operating Modes

Sine-Square-Triangle-DC
free running, int. ext. frequency modulated, with or without DC offset

Frequency Range

0.3 Hz to 3 MHz in 7 decade steps
variable control: x0.09 to x1.1 (12:1)
Frequency Stability: <0.5%/h or 0.8%/24h at constant ambient temperature (medium position of frequency control)

Waveform Characteristics

Sine Wave Distortion:
0.3 Hz to 100 kHz: max. 0.5%
0.1 MHz to 0.5 MHz: max. 1.5%
0.5 MHz to 3 MHz: max. 3%
Square Wave Risetime: typ. 20 ns (10 to 90%)
Overshoot: <5%
(when output is terminated with 50 Ω)
Triangle Non-Linearity: <1% (up to 100 kHz)

Display

Frequency: 4 digit 7 Segm. LED, 8x5 mm each
Accuracy up to 3 Hz: ±(1% + 3 digit)
3 Hz to 3 MHz: $\pm(5 \times 10^{-5} + 1$ digit)
LED-indicator for Hz and kHz

Outputs (short-circuit proof)

Signal output:
Impedance: 50 Ω
Output voltage: max. 20 V_{pp} open circuit
10 V_{pp} into 50 Ω
Attenuation: approx. 60 dB
2 steps: 20 dB ± 0.2 dB each
Variable attenuation: 0 to 20 dB
Amplitude Flatness: (sine/triangle)
0.3 Hz up to 0.3 MHz: max. 0.2 dB
0.3 MHz up to 3 MHz: max. 0.5 dB
DC Offset: continuously variable (disconnectable)
Offset range: max. ± 2.5 V into 50 Ω
max. ± 5 V open circuit
Trigger Output: square wave synchronous to signal output; approx. +5V (TTL).

FM Input (VCF; rear panel))

Frequency change: approx. 1:100
Input impedance: 50 kΩ II 25 pF
Input voltage: ±30 V max.

Internal sweep

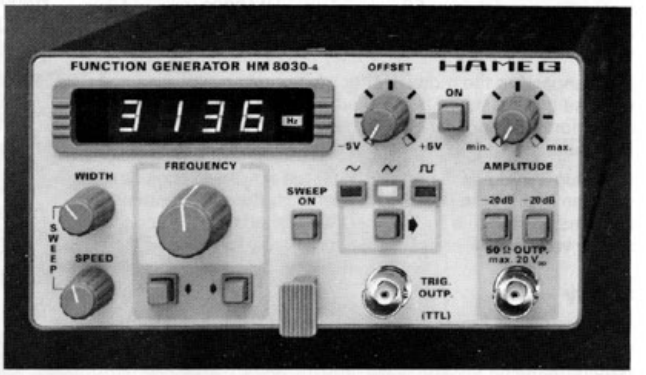
Sweep speed: 20 ms to 4 s
Sweep range: approx. 1 : 100

General Information

Operating conditions: +10°C to +40°C
max. relative humidity: 80%
Supply (from HM8001): +5V/130 mA
+16V/310 mA, −16V/250 mA (∑9.6W).
Dimensions (mm): (without multipoint conn.)
W 135, **H** 68, **D** 228 mm
Weight: approx. 0.80 kg

Values without tolerances are intended as guide lines and represent characteristics of the average instrument.

Subject to change without notice



Function Generator HM8030-4

- **Frequency Range 0.3 Hz to 3 MHz**
- **Operating Modes: Sine, Square, Triangle, DC**
- **Digital Frequency Readout**
- **DC-Offset Adjustment**
- **Internal sweep facilities; Trigger Output**
- **Square Wave Risetime typ. 20 ns**

The **various signals** available from the **HM8030-4** function generator module make it a versatile signal source useful for most measurement and test applications. Its **low frequency ranges** are particularly well suited for simulating mechanical and servo techniques.
Frequencies are read out on a **4 digit LED display** with a maximum resolution of 1 mHz. A variable frequency control with a gear ratio of 4.6:1 facilitates accurate frequency adjustments. Additional quality features include the relatively **low distortion factor** of the generated signals and **constant amplitude flatness** throughout the entire frequency range of the instrument.
All outputs are **short-circuit-proof** and protected against external DC-voltages up to ±45 V.
Due to an internal or external signal source, the **HM8030-4** can also be used in the **sweep mode**.

Optional Accessories

HZ33, HZ34: 50 Ω test cable BNC-BNC.
HZ22: 50 Ω through-termination.