

## Specifications

(Reference Temperature: 23°C ± 1°C)

### Frequency Range

**Frequency Range:** 20Hz to 20kHz  
**Range Steps:** 3 Decade Steps  
**Variable Frequency Control:** 10:1 (overlapping ranges)

### Distortion Measurement Range

**Measurement Range:** 0.01% - 50%  
 divided in 2 ranges  
**Full Range:** 10% and 100%  
**Resolution:**  
**100% Range:** 0.1%  
**10% Range:** 0.01%

### Accuracy

**100% Range:** ±5% ±1 digit for  $k \leq 10\%$   
**10% Range:** ±5% ±1 digit for  $k \leq 1\%$

### Residual Distortion and Noise

≤ 0.5 Digit

### Fundamental Rejection

30dB greater than measured distortion factor  
 or ≥70dB in the 100% range  
 or ≥90dB in the 10% range

### Input Voltage

**min. for 100% Calibration:** 300mV  
**max. for 100% Calibration:** 50V

### Input Impedance

100kΩ

### Monitor Output

**Output Voltage:** 1mV/digit  
 (short circuit proof)  
**Output Impedance:** 10kΩ

### Attenuators

(1 pushbutton switch) -20dB  
 (1 pushbutton switch) -10dB  
 (1 continuous variable attenuator) -15dB

### General Information

1 switch selectable high-pass filter 1kHz,  
 12dB/Octave

### Supply Voltages (from HM8001-2):

+12V/60mA  
 -12V/60mA  
 +5V/100mA  
 (P = 1.94W)

### Operating conditions:

+10°C to +40°C

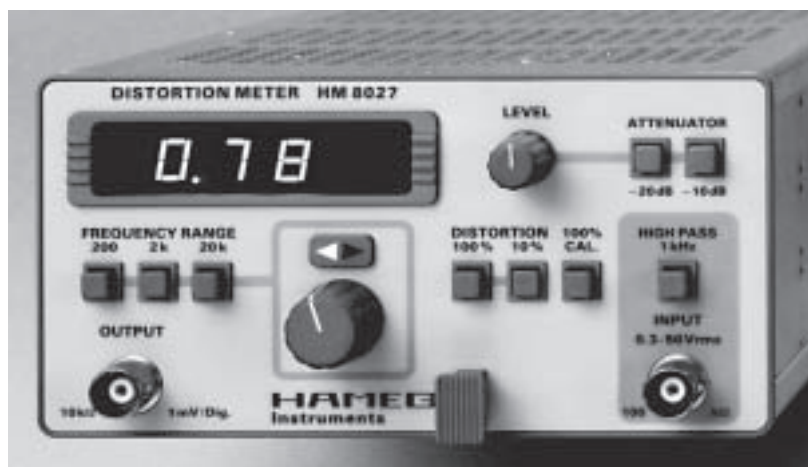
**Max. Relative Humidity:** 80%

### Dimensions (without 22 pin flat connector):

**W** 135 x **H** 68 x **D** 228 mm

**Weight:** approx. 650g

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



## Distortion Meter HM8027

- **Frequency Range:** 20Hz to 20kHz
- **Resolution:** 0.01%, maximum
- **Display:** 3 Digit LED
- **Automatic Frequency Fine-Tuning (Capture 15%)**
- **Monitor Output for Distortion Analysis with HM8037**

The **HM8027** Distortion Meter was developed for the measurement of harmonic distortion in the audio frequency range. Due to its **low inherent distortion of 0.005%** (1kHz), it is ideally suited for tests and measurements of high grade audio systems.

The digital display allows distortion readout with a maximum resolution of **0.01%**. In addition, the **HM8027** has the option to visually **check the residual distortion** of the measured signal on an oscilloscope connected to its socket output. This feature enables a qualitative evaluation of the reading for signals with noise or crossover distortion beyond the indicated distortion value.

Test frequency adjustments are performed via a rotary dial and push-button frequency range selectors. The **automatic frequency fine tuning** with a 15% capture range ensures fast and easy operation of the **HM8027**.

The Distortion Meter **HM8027**, combined with the Sine Wave Generator **HM8037**, provides a complete test system to be used primarily in the audio frequency range. The clearly arranged front panel assures problem free operation.

**Accessories supplied**  
 Operators Manual

**Optional accessories**  
 BNC test cable HZ33, HZ34  
 Adaptor BNC-Banana HZ20