



Digital Multimeter

High Performance, Full Featured with CD Software for Remote Communication

HHM9007R



- ✓ Excellent Value
- ✓ 60,000 Count LCD
- ✓ 0.08% Basic Accuracy
- ✓ Includes Windows® 7 & 8 Compatible Software CD, USB Cable for Remote Communication
- ✓ True RMS AC + DC
- ✓ Auto Power-Off
- ✓ Temperature, Capacitance, Frequency Measurement
- ✓ All Current Ranges are Fuse Protected
- ✓ IEC61010 1: CATIII 1000V, CAT IV 600V

The HHM9007R is a full featured, high performance digital multimeter (DMM) built with a double molded case to support rugged use and improved gripping. The meter comes with CD software and a USB cable for remote communications. This versatile, value priced DMM measures voltage, current, resistance, conductance, capacitance, and frequency as well as additional component and diode test features. The HHM9007R comes complete with an OMEGA Type K beaded wired thermocouple to measure temperature.

Specifications

DC Volts

Range	Resolution	Accuracy	Input Impedance
600 mV	0.01 mV	±(0.08% red+5d)	10MΩ
6V	0.1 mV		11MΩ
60V	1 mV		10MΩ
600V	10 mV		10MΩ
1000V	100 mV		10MΩ

Overload Protection: 1000 Vdc or 750 Vac RMS



Free Thermocouple Included!
 This model includes a free 1 m (40") Type K insulated beaded wire thermocouples with subminiature connector and wire spool caddy (1 per channel).
Order a Spare! Model No. SC-GG-K-30-36

HHM9007R shown larger than actual size, test lead set and Type K thermocouple included.



AC Volts (True RMS)

Range	Resolution	Accuracy (45 to 2 kHz)/HFR2	Input Impedance
600 mV	0.01 mV	±(1.0% red+20d) 45 to 500 Hz	10MΩ
6V	0.1 mV	±(1.5% red+20d) 500 to 1 kHz	11MΩ
60V	1 mV	±(1.0% red+20d) 45 to 500 Hz	10MΩ
600V	10 mV	±(1.5% red+20d) 500 to 1 kHz	
		±(2.0% red+20d) 1k to 2 kHz	
750V	100 mV	±(2.0% red+20d) 45 to 1 kHz	10MΩ

Range	Resolution	Accuracy (45 to 60 Hz)/HFR1	Input Impedance
600V	0.01 mV	±(2.0% red+20d) 40 to 60 Hz	10MΩ
6V	0.1 mV		11MΩ
60V	1 mV		10MΩ
600V	10 mV		10MΩ
750V	100 mV		10MΩ
			10MΩ

AC + DC Volts (True RMS)

Range	Resolution	Accuracy (45 to 2 kHz)	Input Impedance
600 mV	0.01 mV	±(1.5% red+30d) 45 to 500 Hz	10MΩ
6V	0.1 mV	±(2.0% red+30d) 500 to 1 kHz	11MΩ
60V	1 mV	±(1.5% red+30d) 45 to 500 Hz	10MΩ
600V	10 mV	±(2.0% red+30d) 500 to 1 kHz	
		±(2.5% red+30d) 1k to 2k Hz	
750V	100 mV	±(2.5% red+30d) 45 to 1 kHz	10MΩ

Crest Factor: ≤3 at full scale and ≤6 at half scale

AC Coupled True RMS: Specified from 2 to 100% of range

High Frequency Reject:

HFR1: >1 kHz

HFR2: >100 kHz

Peak Hold Accuracy: ±(3.0% rdg + 500 dgts) 45 to 500 Hz on AC 60V to 750V ranges

Overload Protection: 1000 Vdc or 750 Vac RMS

Resistance

Range	Resolution	Accuracy	Input Impedance
600Ω	0.01Ω	±(0.3%)	-3.0 Vdc
6kΩ	0.1Ω	±(0.3% red+10d)	-1.2 Vdc
60kΩ	1Ω		
600kΩ	10Ω		
6MΩ	100Ω		
60MΩ	1kΩ	±(3.0% red+20d)	

Overload Protection: 600 Vdc or 600 Vac RMS

Current

DC Current:

Range	Resolution	Accuracy
600 μA	0.01 μA	±(0.5% red+10d)
6000 μA	0.1 μA	
60 mA	1 μA	
400 mA	10 μA	±(1.0% red+10d)
20 A	1 mA	±(2.0% red+10d)

AC Current (True RMS):

Range	Resolution	Accuracy (45 to 1 kHz)
600 μA	0.01 μA	±(1.5% red+20d)
6000 μA	0.1 μA	
60 mA	1 μA	
400 mA	10 μA	
20 A	1 mA	±(2.5% red+20d)

AC + DC Current (True RMS):

Range	Resolution	Accuracy (45 to 1 kHz)
600 μA	0.01 μA	±(2.0% red+30d)
6000 μA	0.1 μA	
60 mA	1 μA	
400 mA	10 μA	
20 A	1 mA	
		±(3.0% red+30d)

Voltage Burden: 500 mV on 600 μA, 60 mA ranges, 2V on 6000 μA, 400 mA, 20 A ranges

Input Protection: 0.5 A/1000V fast blow ceramic fuse (6.3 x 32 mm) on μA/mA input; 20 A/600V fast blow ceramic fuse (10 x 38 mm) on 20A input

20A Input: 20A for 30 seconds maximum cooling period followed by 10 minutes

Crest Factor: ≤3 at full scale and ≤6 at half scale

AC Coupled True RMS: Specified from 2 to 100% of range

Peak Hold Accuracy: ±(3.5% rdg+500 dgts) 45 to 500 Hz on AC current range

Continuity Test

Range: 600Ω

Audible Threshold: Less than 40Ω

Response Time: Approximately 100 ms

Open Circuit Volts: -3.0 Vdc

Overload Protection: 600 Vdc or 600 Vac RMS

Diode Test

Range: 2V

Resolution: 1 mV

Accuracy: ±(2.0% red+10d)

Test Current: 0.5 mA

Open Circuit Volts: 3.0 Vdc typical

Audible Indication: Less than 0.05V

Overload Protection: 600 Vdc or 600 Vac RMS



Conductance (6000 Counts)

Range: 60 ns

Resolution: 0.01 ns

Accuracy: $\pm(1.0\% \text{ red}+10d)$

Open Circuit Volts: -0.7 Vdc

Equivalent Resistance Range: 16.7M Ω to 100G Ω
 (S = Siemens = 1 / Ω), (0.01ns = 100Gs), (0.1ns = 10G Ω),
 (1ns = 1000M Ω), (10ns = 100M Ω), (60.0ns = 16.7M Ω)

Overload Protection: 600 Vdc or 600 Vac RMS

Capacitance (6000 Counts)

Range	Resolution	Accuracy
6nF	0.001nF	$\pm(3.0\% \text{ red}+30d)$
60nF	0.01nF	$\pm(3.0\% \text{ red}+10d)$
600nF	0.1nF	
6 μ F	0.001 μ F	
60 μ F	0.01 μ F	
600 μ F	0.1 μ F	$\pm(5.0\% \text{ red}+10d)$
6mF	1 μ F	

Overload Protection: 600 Vdc or 600 Vac RMS

Temperature

Range	Resolution	Accuracy	Sensor Type
0 to 400°C	0.1°C	$\pm(1.0\% \text{ red}+1^\circ\text{C})$	Type K thermocouple
-50 to 0°C, 400 to 1300°C		$\pm(2.0\% \text{ red}+3^\circ\text{C})$	
32 to 750°F	0.1°F	$\pm(1.0\% \text{ red}+2^\circ\text{F})$	
-58 to 32°F, 750 to 2372°F		$\pm(2.0\% \text{ red}+6^\circ\text{F})$	

Overload Protection: 30 Vdc or 30 Vac RMS

% Duty Cycle

Range: 5 to 95%

Resolution: 0.1%

Pulse Width: >10 μ s

Accuracy (5V Logic): $\pm(2.0\% \text{ red}+10d)$

Frequency Range: 5 to 95% (40 Hz to 1 kHz), 10 to 90% (1 kHz to 10 kHz), 20 to 80% (10 to 20 kHz)

Overload Protection: 600 Vdc or 600 Vac RMS

Frequency

Range	Resolution	Accuracy	Trigger Level
60 Hz	0.001 Hz	$\pm(0.1\% \text{ red}+10d)$	>1.5V
600 Hz	0.01 Hz		
6 kHz	0.1 Hz		
60 kHz	1 Hz		
600 kHz	10 Hz		
6 MHz	100 Hz		> 2.5V <5.0V
10 MHz	1 kHz		

Minimum Input Range: >6 Hz

Minimum Plus Width: >100 ns

Duty Cycle Limits: >30% and <70%



Software on CD and USB cable included.

Overload Protection: 600 Vdc or 600 Vac RMS

Display: 60,000 counts, 60 segments analog bar-graph

Polarity: Automatic, (-) negative polarity indication

Overrange Indication: (OL) or (-OL) is displayed

Low Battery Indication: When changing a new battery, the LCD will show the battery capacity with full status (■); if the operation lasts for a few hours, the capacity indication may show half battery status (▣); after a long time operation, the battery may be exhausted and low battery status is shown (□); when the "bAtt" is displayed along with a continuous beeping sound and the meter shuts down in 5 seconds, then no further measurement is allowed

Measurement Rate: 2.0/sec, nominal; 20/sec, analog bar-graph

Operating Environment: 0 to 50°C at <70% RH

Storage Environment: -20 to 60°C at <80% RH

Temperature Coefficient: 0.1 x (specified accuracy) per °C (0 to 18°C, 28 or 50°C)

Auto Power Off: Approximately 30 minutes

Altitude: 2000 m (6561.7')

Power: Single 9V battery (included)

Battery Life: 25 hours typical with carbon-zinc, 50 hours typical with alkaline

Size: 198 H x 90 W x 44 mm D (7.8 x 3.6 x 1.7")

Weight: Approximately 400 g (14.1 oz) including battery

To Order	
Model No.	Description
HHM9007R	High performance DMM

Comes complete with one 9V battery, software on CD, USB cable, Type K thermocouple, test lead set and operator's manual.