



High Performance Talking/Seeing! Digital Multimeter - Dual Input Thermometer & **Infrared** Pyrometer

OMEGASAYS®
Model HHM2-IR

\$349 Basic Unit

Includes One English Voice Chip

- ✓ Non-Contact IR Temperature Measurement Pyrometer
- ✓ Built-in Laser Sighting
- ✓ Voice Annunciation of Measured Parameters in a Choice of 5 Languages
- ✓ Dual Type K Thermocouple Inputs With Differential Measurements
- ✓ 0.25 % Basic dc Accuracy
- ✓ True RMS ac Measurement
- ✓ 4 Digit Temperature Display, 3 1/2 Digit DMM Display
- ✓ 0.1° Resolution to 1000°
- ✓ Continuous or Manual Button Control of Voice Annunciation

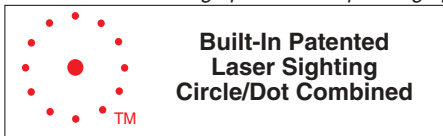
The new OMEGASAYS® digital multimeter/ thermometer/IR Pyrometer is a full function digital multimeter which also features non-contact infrared temperature measurement, dual type K thermocouple inputs and voice annunciation of measured values. This compact, portable meter measures true RMS ac voltage and current, as well as resistance and temperature, and will accept any two type K thermocouples terminated with miniature SMP connectors. The HHM1-IR features a standard voice annunciation used to verbally tell the user the current measurement in a choice of five different languages.

The OMEGASAYS® displays measured values on an easy to read LCD for visual indication, which also includes an indication of the current measurement function, the other available measurement functions, speech function status (continuous, on demand or off), measurement units, thermocouple probe input (T1, T2 or T1-T2), display hold and low battery. All DMM connections plug into the front of the unit. Thermocouples, pyrometer module, earphones and the ac adaptor plug into the rear panel of the unit, which also contains a three-position volume selector switch. On top of the HHM1-IR meter is an on/off switch along with six pushbuttons to select from

Plug-In Voice Chips: English, French, German, Japanese, Spanish

OMEGASAYS® + OMEGASCOPE® = SUPER-DUPER METER™

Covered by several U.S. and foreign patents and pending applications.



Actual Display Size!

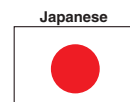
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Includes IR module shown with built-in laser sighting

OMEGACARE™ extended warranty program is available for models shown on this page. Ask your sales representative for full details when placing an order.

among a variety of unique additional functions. These include a "TEMP" function, which selects IR/thermocouple input T1, T2 or the differential. The "Ω ZERO" function compensates for the resistance of the test leads when taking resistance measurements. "DISPLAY HOLD/SPEAK" selects continuous or on-demand speech or freezes the display. The "SPEECH" button turns the speech function on and off. "°F/°C" switches the temperature units. "AC/DC"

similarly switches between ac and dc measurements. Included with each HHM1-IR is a set of test leads for measuring voltage, current and resistance. The red lead handle includes a convenient pushbutton to easily operate the speech function while holding the leads. An optional pistol grip type K thermocouple handle is also available with a similar pushbutton to activate the voice function remotely for temperature measurements.



Meter Specifications

Power Supply: 9 V battery or 110 Vac adaptor (included)
Battery Life: Approx. 150 hrs/no speech/approx., 30 hrs continuous speech; alkaline battery
Ambient Operating Conditions: 32 to 122°F (0 to 50°C); 0 to 80% RH
Storage Temperature: 14 to 140 °F (-10 to 60 °C)
Dimensions: 2.36 H x 3.15 W x 6.69" D (6 x 8 x 14 cm)
Weight: 18 oz (0.5 kg), including battery, fuses, speech module



Current Measurement

Range	Resolution	Accuracy	
		dc	ac
400 mA	0.1 mA	±0.5% ±2 d	±2% ±2 d
4 A	1 mA	±1% ±2 d	±2% ±2 d

Note: ac bandwidth is 50 to 20 kHz; 50 Hz to 5 kHz for signals > 40 mA in 400 mA range, for signals < 0.4 A in 4 A range.

Ranges: The 400 mA and 4 A current ranges have separate, individually fused inputs.

Type-K Temperature Measurement

Range	Resolution	Accuracy	
		HMM2	HMM2A
-200 to -150°C	0.1°C	±12°C	±1.5°C
-328 to -238°F	0.2°F	±24°F	±3.0°F
-150 to -100°C	0.1°C	±6.0°C	±1°C
-238 to -148°F	0.2°F	±12°F	
-100 to -50°C	0.1°C	±3.0°C	
-148 to -58°C	0.2°F	±6.0°F	
-50 to 0°C	0.1°C	±1.5°C	
-58 to 32°F	0.2°F	±3.0°F	
0 to 999°C	0.1°C	±1.0°C	
32 to 999°F	0.2°F	±2.0°F	
1000 to 1372°C	1°C	±1°C	
1000 to 2502°F	1°F	±2°F	

Functions: Dual input, with differential measurement capability (T1, T2, T1-T2)

Input Type: Type K thermocouple

Units: User selectable °F or °C

Input Protection: 24 V rms or 60 Vdc max. input voltage on any combination of input pins

Common Mode Voltage: 0.5 V max., between T1 and T2 during measurement

Voltage Measurement

Range	Resolution	Accuracy	
		dc	ac
400 mV	0.1 mV	±0.25% ±2 digits	±0.25% ±2 digits
4 V	1 mV		
40 V	10 mV		
400 V	100 mV		
1000 Vdc/750 Vac	1 V		

Resistance Measurement

Range	Resolution	Accuracy
400 Ω	0.1 Ω	±0.25% ±2 digits
4 kΩ	1 Ω	
40 kΩ	10 Ω	
400 kΩ	100 Ω	
4 MΩ	1 kΩ	
40 MΩ	10 kΩ	±0.5% ±2 digits

Input Protection: 400 mA/250 V fast acting fuse, 400 mA range; 4 A/250 V fast acting fuse, 4 A range

Input Protection: 250 V rms ac or dc

Autoranging: Unit autoranges over all six ranges

Digital Ohms Zero: Nulls out test lead impedance for low resistance readings in the 4000 Ω range

Non-Contact Infrared Specifications

Temp Range: -18 to 538 °C (0 to 1000 °F)

Accuracy: ±3% of Reading or 2.2 °C (4 °F)

Repeatability: ±1% of Reading

Spectral Response: 8 to 14 microns

Optical Field of View: 6:1 (Distance/Spot Size)

Response Time: 150 msec (0 to 63% of final value)

Emissivity: Adjustable from 0.1 to 1.00

Analog Output: K-type Thermocouple (Compensated)

Output Connection: (Universal Type-K Female) accepts both miniature and standard male Type-K connectors

Power: 3.5V Lithium Battery, (AA), 1900mAh

Low Power Indicator: Flashing LED

Ambient Operating Conditions: 32 to 122°F (0 to 50°C); Less than 95% RH (Non-Condensing)

Dimensions: 2.5 x 5 x 10 cm (1" h x 2" w x 4" d)

Weight: 100 g (0.22 lbs)

Sighting Type: Built-In laser (Circle/Dot Combined)

Laser Wavelength (Color): 630-670 nm (Red)

Max Laser Power: Less than 1 mW

Safety Classification: Class 3A

Beam Diameter: 5 mm

Beam Divergence: Less than 2 mrad

Laser Power Switch: Momentary

Laser Power Indicator: Flashing Red LED

To Order (Specify Model Number)

Model No.	Price	Description
HMM2-IR	\$349	High performance DMM/Pyrometer <i>Includes One English Voice Chip</i>
HMM2A-IR	399	Extra high performance DMM/Pyrometer <i>Includes One English Voice Chip</i>
HMM1-FR	35	Plug-in speech chip - French
HMM1-SP	35	Plug-in speech chip - Spanish
HMM1-GR	35	Plug-in speech chip - German
HMM1-JP	35	Plug-in speech chip - Japanese
HMM1-EG	35	Add'l English speech chip
SDX-HMM1	35	Pistol grip thermocouple handle with speech actuator button and KMQSS-125G-6 thermocouple probe
HMM2-SC	15	Spare soft case
STS-2X	79	Solder iron tip temperature tester
STS-3X	79	Solder iron tip temperature tester module
STS-H	60	Replacement sensor for STS testers
STS-RE	60	Replacement element for STS-H (3 pack)
STS-RT	60	Replacement thin arm element for STS-H (3 pack)

Each unit comes complete with IR Pyrometer Module, fuses, two beaded wire type K thermocouples, TAS standard-to-mini type-K transition adaptor, custom test leads, English speech chip, earphone, soft carrying case, 9V battery, 110 Vac adaptor and manual.

Note: The OMEGASAYS® Meter was designed, engineered and calibrated in the USA. Partial assembly is done in Taiwan. The OMEGASCOPE® IR Pyrometer Module and Patented Laser Sighting is made in the USA.

Ordering Example: HMM1-IR, very high performance DMM/IR Pyrometer with English speech chip, plus SDX-HMM1 thermocouple probe and handle with speech button, \$349 + \$35 = \$384.