# Hands Free!\* High Performance Talking Digital Multimeter/ Thermometer 27130

**OMEGASAYS®** 

Model HHM2

**Basic Unit Includes One English Voice Chip** 

- ✓ True RMS ac Measurement
- ✓ Voice Annunciation of **Measured Parameters in** a Choice of 5 Languages
- ✓ 0.25 % Basic dc Accuracy
- ✓ 20 kHz ac Bandwidth
- Dual Type K Thermocouple Inputs With Differential Measurements
- ✓ 4 Digit Temperature Display, 3<sup>3</sup>/<sub>4</sub> Digit DMM Display
- ✓ 0.1° Resolution to 1000°
- Continuous or Manual **Button Control of Voice** Annunciation
- Companion Hygro/ Thermometer Available (Model RH411)

The OMEGASAYS® digital multimeter/ thermometer is a full function digital multimeter which also features 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 HHM2 features a standard voice annunciation used to verbally tell the user the current measurement in a choice of five different languages.

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



input (T1, T2 or T1-T2), display hold and low battery. All DMM connections plug into the front of the unit. Thermocouples, 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 HHM2 meter is an on/off switch along with six pushbuttons to select from among a variety of unique additional functions. These include a "TEMP" function, which selects thermocouple input T1, T2 or the differential. The " $\Omega$  ZERO" function compensates for the resistance of the test leads when taking resistance measurements. "DISPLAY



for full details when placing an order.

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 HHM2 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.

Japanese



\*When meter is clipped on a belt or used on a bench

#### **Specifications**

speech module

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,

#### **Current Measurement**

		Accuracy	
Range	Resolution	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.

#### **Temperature Measurement**

		Accuracy	
Range	Resolution	HHM2	HHM2A
-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	
-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	±1°C
-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**

		Accuracy	
Range	Resolution	dc	ac
400 mV	0.1 mV		
4 V	1 mV	0.050/	0.050/
40 V	10 mV	±0.25%	±0.25%
400 V	100 mV	±2 digits	±2 digits
1000 Vdc/ 750 Vac	1 V		

#### **Resistance Measurement**

Range	Resolution	Accuracy
400 Ω	0.1 Ω	
4 kΩ	1Ω	
40 kΩ	10 Ω	±0.25% ±2 digits
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  $\Omega$  range



The OMEGASAYS® multimeter comes complete with fuses, two glass braid insulated beaded wire type K thermocouples, TAS standard-to-mini thermocouple transition adaptor, custom test leads, English speech chip, earphone, soft carrying case, 9V battery, 110 Vac adaptor and operator's manual



Meter bracket with sensor head and element for use with the HHM2A multimeter/thermometer shown above.

To Order (Specify Model Number)		
Model No.	Price	Description
HHM2	\$249	High performance Includes One DMM/thermometer English Voice Chip
HHM2A	299	Very high performance DMM/thermometer
HHM1-FR	35	Plug-in speech chip - French
HHM1-SP	35	Plug-in speech chip - Spanish
HHM1-GR	35	Plug-in speech chip - German
HHM1-JP	35	Plug-in speech chip - Japanese
HHM1-EG	35	Add'l English speech chip
SDX-HHM2	35	Pistol grip thermocouple handle with speech actuator button and KMQSS-125G-6 thermocouple probe
HHM2-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 STX testers
STS-RE	60	Replacement element for STS-H (3 pack)
STS-RT	60	Replacement thin arm element for STS-H (3 pack)

Ordering Example: HHM2A, very high performance DMM/thermometer with English speech chip, plus SDX-HHM2 thermocouple probe and handle with speech button, \$299 + \$35 = \$334.

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