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TODAY'S STANDARD FOR POWER AND ENERGY CALIBRATION

ROTEK[®]



ROTEK[®] model MSB100
POWER ENERGY STANDARD

model **MSB100**
POWER ENERGY STANDARD

ANALOG OUTPUT
200V ~ MAX

VOLTAGE INPUT
700V ~ MAX

DIGITAL I/O

CURRENT INPUT
50A ~ MAX

10V
GND

THE ROTEK MODEL MSB100

is a primary watt and watthour standard that performs at a new level of power and energy measurement accuracy. It provides reliable, accurate traceability to N.I.S.T. or other national standards worldwide. Versatile measurement ranges and unparalleled accuracy allow the MSB100 to be the single instrument necessary to calibrate any watt/watthour measurement instrument available today.

The sophisticated power measurement technology used by the Model MSB100 allows measurement accuracies that are unsurpassed by any instrument in its class. This exceptional performance is maintained regardless of phase angle, greatly improving power measurements at near zero power factor.

Five current input ranges are provided from 50mA to 5A. Four voltage input ranges are provided from 120 to 640VAC. Optional current ranges of 10, 50 and 200A greatly extend the functionality of this instrument.

Power measurements are displayed on the large easy-to-read LCD graphic display. For added flexibility, an analog output is also provided on the front panel. This 10VDC signal is directly proportional to the applied power.

The MSB100 is ideally suited for use as a primary watthour reference meter. Energy measurements are indicated on the front panel graphic display. In addition, watthour measurements are available from the digital I/O connector on the front panel as a 5V digital output.

The Model MSB100's digital I/O connector may also be used as a pulse input. Watthour meters equipped with a pulse output may be connected directly to the Model MSB100 and compared automatically using the built in comparator. No additional test equipment, computers or complicated test setups are required.

The Model MSB100 has a single set of voltage input connectors and a single set of current input connectors. Range selection is accomplished using the simple, intuitive front panel controls. Ranging and all other front panel functions may be implemented remotely using the standard IEEE-488 or RS-232 interfaces. These uncomplicated connections combined with a comprehensive remote interface make the MSB100 ideal for systems use and other automated testing applications.

In addition to the measured power or energy the comprehensive front panel display includes information on range status, internal temperature and configuration menus. The MSB100 monitors the signals at voltage and current input terminals displaying the voltage amplitude, current amplitude, phase angle and frequency.

The measurement accuracy of the Model MSB100 is maintained by two internal precision DC voltage references that are available at the front panel. Periodic monitoring of these reference voltages will provide the user with total confidence throughout the calibration cycle.

The Model MSB100 is designed to work seamlessly with the Rotek Model 8000 Power and Energy Calibrator to provide an integrated solution for the support and calibration of a wide range of watt and watthour meters.

The Model MSB100, used in conjunction with an AC voltage standard, is the only test equipment required to calibrate and certify the Rotek Model 8000. Rotek's 8Cal calibration software controls the MSB100 and makes all adjustments to the Model 8000 automatically.



*0.005% Power Accuracy
0.010% Energy Accuracy
Voltage Inputs to 640V
Current Inputs to 200A
Frequencies from 40 – 400Hz
Traceable to N.I.S.T.*

ROTEK®