Fully Integrate into High-Speed, Multi-channel Measurement Systems

**Multi-channel**
Up to 54 channels (MR8740)
The MR8740 uses a two-block internal architecture, essentially giving it the capabilities of two MEMORY HiCORDERs.

Up to 16 channels (MR8741)

**High-speed isolated measurement**
20 MS/s isolated sampling
Simultaneous 20M sampling within the same block

**DVM UNIT MR8990**
Digital Voltage Meter
Measure minute changes in voltage at a high level of precision. Simultaneous measurement of all channels--rather than scanner-type measurement--dramatically reduces cycle times.

**Systems Integration**
Ideal for rack-mounting
Height of 4U (180 mm) or less
MR8740: 177 (H) × 426 (W) mm
MR8741: 160 (H) × 350 (W) mm

Memory HiCORDER MR8740/MR8741
Are you having problems with multi-channel measurement or testing?

“We’re using multiple DMM units with a scanner to switch inputs. Measurement takes too long…”  
**Reduced cycle times**

“We need to perform many different types of measurements on a large number of channels.”  
**Measure across multiple channels at the same time**

“We’re using multiple measuring instruments, and it’s hard to control them all. The wiring is a mess…”  
**Simplified systems**

“We can’t embed our oscilloscope, so we use it on a shelf. Our setup would be a lot sleeker if we could fit it in.”  
**Rack-mountable design**

“We need to perform many different types of measurements on a large number of channels.”

Solve these issues with the MR8740/MR8741 MEMORY HiCORDER.

A single-instrument solution for measuring multiple signal types and channels featuring rack-style measurement units that can be selected freely according to the target application.

Solution: The MR8990 DVM Unit  (→ page 6)

The MR8990 can measure even minute voltages previously measured with a DMM. Thanks to a 0.1 μV resolution and precision of ±0.01% rdg. ±0.0025% f.s., the MR8990 can capture minute voltage fluctuations as waveforms.

By switching from a bench-type DMM to a DVM unit, you can cut down on the amount of space taken up by measuring instruments. With no need to control multiple instruments, you can also simplify your system.

Solution: Extensive selection of measurement units  (→ page 7)

Thanks to a unit-based architecture that can accommodate voltage, current, temperature, frequency, distortion, and control signal (logic) measurement units, the MR8740/MR8741 is a single-instrument solution for measuring multiple parameters. As a bonus, the ability to simultaneously record different signals on multiple channels cuts down on measurement times.

Solution: Rack-mountable design  (→ page 4)

The MR8740/MR8741 can be mounted in a rack system for a clean, uncluttered installation.
Function testing of ECUs and EV inverter motors

The MR8740/MR8741 can be used to perform a range of waveform measurements of inverter output.

The MR8740 simultaneously measures 34 analog voltage waveform channels, 3 current waveform channels, and 16 DC voltage channels. DC voltage is measured at a high level of precision with a DVM unit. (The instrument provides functionality for time-difference and statistical calculations for voltage waveforms.)

Testing of EV batteries

The MR8740/MR8741 supports high-precision voltage measurement with advanced functionality.

The recorders can take voltage measurement of battery cells, a task that requires a high level of precision and advanced functionality, at 24-bit resolution and precision of ±0.01% rdg, ±0.0025% f.s. Since measurement units have a high input resistance, the effect on the measurement target can be reduced.

Testing of power equipment

The MR8740/MR8741 can be embedded in systems used to test equipment.

The MR8740/MR8741 can perform characteristics testing of power equipment (load rejection tests and switch tests), measuring 42 channels of three-phase voltage and current or sensor output and 112 channels of switch on/off input.

Timed, multi-channel measurement with a logic unit

The MR8740/MR8741 ships standard with 16 channels of logic input*. You can add up to three 8973 Logic Units (16 channels each), making the instruments ideal for timed measurement of multiple channels.

*1 The MR8740 ships standard with 8 channels each in blocks I and II.
*2 The MR8740 can accommodate up to three measurement units in each block.

Battery evaluation

(Example measurement of control signal and charge/discharge time)

Load rejection testing

Analyze correlation among factors such as the generator voltage before and after rejection, the rate of frequency variability, the status of governor servo operation, and voltage regulator switching timing.
The MR8740 is a rack-mountable instrument that can measure up to 54 channels. It uses a two-block architecture, essentially giving it the capabilities of two MEMORY HiCORDERs.

- Accommodates up to 27 measurement units.
- Two-block architecture (Block I: 16 units; block II: 11 units)
- Standard support for 16 logic channels

Support for multi-channel measurement of up to 54 channels
Switchable inter-block trigger synchronization

Independent block operation
Support for applications using different functions

Since blocks I (32 channels) and II (22 channels) perform measurements independently, it is possible to set different function and sampling speeds for each block. Operations such as starting measurement are performed separately by each block, and different measurement data files are used by each block.

For example...

A single instrument supports a variety of measurements, expanding the range of applications in which the device can be used.

Ideal for rack-mounting

The MR8740/MR8741 ship standard with EIA standard-compliant rack-mounting hardware.

The instruments also support JIS standard racks. Please contact HIOKI for more information.
The MR8741 is a bench-top instrument that delivers affordable measurement performance. It features area judgment functionality and external control terminals.

### MR8741 16ch model

- Accommodates up to 8 measurement units.
- Standard support for 16 logic channels
- Area judgment function and external control terminals

### Use as a multi-channel WAVE COMPARATOR.

#### High-speed waveform judgment function

The MR8741’s waveform judgment function, which monitors whether a target waveform has diverged from an area with a safe margin, makes it easy to measure signal waveforms for which it can otherwise be difficult to make pass/fail judgments. The instrument can measure waveforms on multiple channels at the high speed of 20 MS/s, providing immediate pass/fail judgments in maintenance and production line applications.

When using a time-axis range slower than 100msec/div, measured waveforms can be compared in near real-time, enabling you to detect failures on the spot. Production can be halted in time to minimize resource waste.

### Setting the waveform evaluation

- **[OUT]** Return NG if any part of the waveform leaves the evaluation area.
- **[ALL OUT]** Return NG if the entire waveform leaves the evaluation area.

### Setting the GO/NG stop mode

- **[GO]** Stop recording on GO result.
- **[NG]** Stop recording on NG result.
- **[GO]** Stop recording on GO or NG result.
**Features**

**High resolution: 24bit, 6.5-digit display**
Thanks to a resolution of 0.1μV, the MR8990 can measure even minute fluctuations in the output voltage of sensors and other equipment.

**High accuracy: ±0.01% rdg. ±0.0025% f.s.**
The MR8990 performs measurements at a high precision of ±0.01% rdg. ±0.0025% f.s. and at speeds of up to 500 samples per second.

**Max. allowable input: DC 500 V**
The MR8990 can accommodate input ranging from minute to high voltages.

**High input resistance**
- 5mV/DIV to 500mV/DIV range: 100 MΩ or greater
- 5V/DIV to 50V/DIV range: 10 MΩ ±5%

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**Input Unit Comparison Chart (Sampling Period and Accuracy)**

<table>
<thead>
<tr>
<th>Accuracy (%)</th>
<th>0.001</th>
<th>0.01</th>
<th>0.1</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measurement range</strong></td>
<td><strong>24 bit</strong></td>
<td>±0.01% rdg. ±0.0025% f.s.</td>
<td><strong>HIGH RESOLUTION UNIT 8988 16 bit</strong></td>
<td>±0.3% f.s.</td>
</tr>
</tbody>
</table>

---

**Input Unit Comparison Chart (Input Voltage and Sampling Speed)**

<table>
<thead>
<tr>
<th><strong>Max. allowable input</strong></th>
<th>DC 500 V</th>
<th>DC 400 V</th>
<th>50µV</th>
<th>3.125 µV</th>
<th>0.1 µV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accuracy</strong></td>
<td>±0.01% rdg. ±0.0025% f.s.</td>
<td>Accuracy: ±0.3% f.s.</td>
<td>Accuracy: ±0.5% f.s.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sampling speed [S/s]</strong></td>
<td>500S/s</td>
<td>1MS/s</td>
<td>20MS/s</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**Specifications**

- **Measurement range**
  - Measurement range
    - 5mV/div (f.s. = 100 mV): ±120 mV to 120 mV
    - 50mV/div (f.s. = 1000 mV): ±1200 mV to 1200 mV
    - 500mV/div (f.s. = 10 V): ±12 V to 12 V
    - 5V/div (f.s. = 100 V): ±120 V to 120 V
    - 50V/div (f.s. = 1000 V): ±500 V to 500 V
  - Measurement resolution
    - 5 mV/div (f.s. = 100 mV): ±0.1 μV
    - 50 mV/div (f.s. = 1000 mV): ±1 μV
    - 500 mV/div (f.s. = 10 V): ±10 μV
    - 5 V/div (f.s. = 100 V): ±100 μV
    - 50 V/div (f.s. = 1000 V): ±1 mV
  - Input resistance
    - More than 100 MΩ
  - Measurement accuracy
    - NPLC: Less than 1
      - ±0.01% rdg. ±0.0025% f.s.
    - NPLC: More than 1
      - ±0.01% rdg. ±0.0025% f.s.
  - Integration time
    - Power supply frequency
      - 50 Hz: 20 ms × NPLC
      - 60 Hz: 16.67 ms × NPLC
  - Temperature characteristics: ±(0.002% rdg. ±0.00025% f.s.) / °C
  - A/D conversion
    - Measurement method: ΔΣ modulation method 24bit
  - Measurement functions: DC V
  - Number of channels: 2ch
  - Maximum sampling rate: 2 ms (500 sampling/sec)
  - Max. allowable input: DC 500 V
  - Max. rated voltage to earth: AC, DC 300 V

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**Digital Voltage Meter**

**DVM UNIT MR8990**

New unit designed exclusively for the MR8740/MR8741

The MR8990 DVM UNIT is a two-channel DC voltage measurement unit designed exclusively for use with the MR8740/MR8741. It can measure minute fluctuations in output from sensors in automobiles and other equipment and voltage fluctuations in devices such as batteries at high levels of precision and resolution.

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**Option for MR8990**

**TEST LEAD L2200**

- One set (Red×1, Black×1), 70cm (2.30ft) length
- Unit jack: Banana terminal
- The tip can be replaced with a pin lead or alligator clip.

Max. allowable input: CAT IV 600V, CAT III 1000V

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**Unit-based architecture accommodates a variety of measurement applications.**
Analyze data on a computer

Easy recording of measurement data

Compatible to USB memory sticks
Measurement data can be saved on any generic USB memory device. Measurement data can be easily recorded, and a USB flash drive can be used to easily copy data to a computer.

LAN communications capability

HTTP/FTP server function
A 100BASE-TX LAN port is built in as standard equipment.
<HTTP server capability>
Access the unit via a web browser running on a computer, for waveform observation and remote operation. Waveform data of the MR8740/MR8741 series can also be downloaded and pasted onto Excel.
<FTP server capability>
Copy the memory contents of the MR8740/MR8741 (USB memory, internal RAM) to a computer.

Waveform observation/CSV conversion software bundled as standard

Standard application disc (Wv Wave Viewer)
- Binary data collected with the MEMORY HiCORDER can be observed as waveforms on a computer.
- Data can be converted to CSV format for importing into Excel. The software is supplied free of charge with the product, and the latest version can also be downloaded from the HIOKI web site.

Wave Viewer (Wv) Software Specifications (Bundled with the MR8740/MR8741 in the CD-R)

<table>
<thead>
<tr>
<th>Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Simple display of waveform file</td>
</tr>
<tr>
<td>• Text conversion: convert binary data file to text format, with selectable space or tab separators in addition to CSV, and specifiable section, thinning available</td>
</tr>
<tr>
<td>• Display format settings: scroll functions, enlarge/reduce display, display channel settings</td>
</tr>
<tr>
<td>• Others: voltage value trace function, jump to cursor/trigger position function</td>
</tr>
</tbody>
</table>

Operating environment
Windows 7 (32bit/64bit)/Vista (32bit)/XP/2000
Convenient functions

**Display and mouse connectivity**

Measure without using a PC.

By connecting a display and mouse to the MR8740/ MR8741, you can display waveforms and operate the instrument with a mouse.

The monitor display screen uses the same layout as the MR8847 Memory HiCorder series display. A mouse can be used to operate and configure the instrument, providing a user experience that approximates use of a keyboard. (Display and mouse not included.)

**X-Y wave comparator**

MR8741 only

The MR8741 includes functionality for judging X-Y waveforms. Waveforms measured using the memory function and created with X-Y compositing are subject to area judgment.
The X-Y waveforms captured from these and many other applications can be tested against reference waveforms automatically:
• Alteration and pressure at press machines
• Pump pressure and flow

**Value monitor (DMM display)**

Input values can be monitored numerically in the manner of a digital multimeter (DMM).

**Numerical calculation function**

Calculate parameter values from measured waveform

20 different built-in calculation types including effective (rms) value, peak value, and maximum value.
Multiple channels can be measured and judged at once, minimizing cycle times. Inter-channel calculations can also be performed at high speed by means of internal processing, and the results can be transferred to a computer.
FFT function

Frequency area data analysis (FFT function)

Electrical distortion analysis/mechanical vibration analysis

FFT analysis function

This function comprises single-signal FFT for tasks such as frequency component analysis, dual-signal FFT for transfer function analysis, and octave analysis for acoustic measurements. The signal source for analysis are selectable from 1,000 to 10,000 data points.

FFT analysis from captured time domain data
(used with Memory function)

To use measurement data captured with the Memory function, the mouse serves to specify analysis points, and processing results can now be displayed at the same time. There is no need to go back and forth between the Memory and FFT Functions to set the calculation start point. It is also possible to view raw data measured with the Memory function and processing results obtained from stored waveforms side by side. You can then check the effects of window functions while viewing spectrum waveforms, resulting in a dramatic improvement in operation convenience during use of the analysis functions.

Running spectrum display (MR8741 only)

Waveform comparison can be conducted even for FFT-analyzed waveforms.

Recalculate by changing the number of calculation points after measurement

Even for measurement data currently based on a lower number of calculation points, it is possible to increase the number later and perform analysis again. For example, data measured at a setting of 1,000 points can be converted and reanalyzed with a 10,000 point setting. This will result in a tenfold increase in frequency analysis resolution. Of course, the opposite is also possible, going for example from 10,000 points to 1,000 points.

Recallulation with a different number of calculation points is not possible if frequency averaging is set to ON.

Running spectrum display

Display ever-changing time-based spectrums in 3D and use the mouse to load previously captured waveform. Data can be saved as text for further graphical processing on Excel or other spreadsheet applications.
Specifications

**Basic specifications (product guaranteed for one year)**

**Measurement functions**

- **MEMORY (high-speed recording)**: MR8740: 27units × 16 logic channels (standard)  
  MR8741: 8units × 16 logic channels (standard)  
  * For analog units, channels are isolated from each other and from frame GND. For logic units and standard logic (logic terminal, all channels have common GND).

- **Maximum sampling rate**: 20 Ms/s (50 mV per unit, all channels simultaneously)
  - External sampling (10 Ms/s, 180 mV)

- **Internal memory**: MR8740: Block I: Total 512 M-words (16MW/ch)  
  Block II: Total 352 M-words (16MW/ch)  
  MR8741: Total 256 M-words (10MW/ch)

- **Data storage media**: USB memory stick (USB 2.0)

- **Backup functions (At 25°C/77°F)**: Clock and parameter setting backup at least 12 years

- **External control connectors (MR8741 only)**: Terminal block: External trigger input, Trigger output, External sampling input, Two external outputs (GO/NOP output), Three external inputs (start, stop, trigger)

- **External interfaces**: LAN: 10BASE-TX (B87.4, DNS supported, HTTP server)  
  USB: USB2.0 compliant, series A receptacle x2

- **Environmental conditions (No condensation)**: Operation: 0°C (32°F) to 40°C (104°F), 20% to 80% rh
  Storage: -10°C (14°F) to 50°C (122°F), 90% rh or less

- **Compliance standard**: Safety: EN61010

- **Power supply**: 100 to 240 V AC, 50/60 Hz

- **Power consumption**: MR8740: 250 VA, MR8741: 120 VA

- **Dimensions and mass (main unit only)**: MR8740: Approx. 426 mm (16.77 in) × W 177 mm (6.97 in) × H 505 mm (19.88 in), 30.8 kg (68.1 lbs)  
  MR8741: Approx. 350 mm (13.78 in) × W 160 mm (6.30 in) × H 320 mm (12.60 in) D, 5.4 kg (19.05 lbs)

- **Supplied accessories**: Instruction Manual × 1, Application Disk (Wave Viewer Wv, Communication Commands table) × 1, Power cord × 1, rack-mounting hardware (EIA standard) × 1 (MR8740 only)

**MEMORY (high-speed recording)**

- **Time axis**: ±5 μs to ±5 ms/div (100 samples/div) 26 ranges, External sampling (MR8740 only), Time axis zooms: ±2 to ±10 in 3 stages, compression: 1/2 to 1/20,000 in 13 stages

- **Sampling period**: 25 to 100,000 div, or arbitrary setting in 1-div steps (max. 160,000 div)

- **Pre-trigger**: Record data from before the trigger point at 0 to 100% or -95% of the recording length in 15 stages, or in 1 div step settings

**Numerical calculation**

- **Simultaneous calculation for up to 16 selected channels**
  - Average value, effective (rms) value, peak to peak value, maximum value, time to maximum value, minimum value, time to minimum value, period, frequency, rise time, full time, average deviation, area value, X/Y area value, specified level time, specified time level, pulse width, duty ratio, pulse count, four arithmetic operations, Time difference, phase difference, stress, high level and low level
  - Calculation result evaluation output: GO/NG
  - Automatic storing of calculation result

**Waveform processing**

- For up to 16 freely selectable channels, the following functions can be performed (results are automatically stored): Four arithmetic operations, absolute value, exponential, common logarithm, square root, moving average, differentiation (primary, secondary), accumulation (primary, secondary), parallel displacement along time axis, trigonometric functions, reverse trigonometric functions

**Memory segmentation**

- Max. 1024 blocks

**Other functions**

- No logging
- XY waveform synthesis (1-screen, 4-screens)
- Overlay (always overlay when started/overlay only required waveforms)

**RECORDER (real-time recording)**

- **Time axis**: 10 ms to 1 hour/div, 19 ranges, time axis resolution 100 points/div
  - Note: Out of data acquired in selected sampling rate, only maximum and minimum value data determined using 100 points/div are stored. Time axis compression selectable in 13 steps, from 1/2 to 1/2,000

- **Sampling rate**: 710,000 to 1/1000 ms/div (selectable from 1/100 or less of time axis)

- **Recording length**: Built-in memory (25 - 50,000 div, or "Continuous" or Recording length)

- **Waveform memory**: Store data for most recent 80,000 div in memory

- **Auto save**: Data is automatically saved in USB memory stick after measurement stops

**Maximum Recording Time for the internal memory (AT MEMORY FUNCTION)**

<table>
<thead>
<tr>
<th>Time axis</th>
<th>50μs/div</th>
<th>100μs/div</th>
<th>200μs/div</th>
<th>500μs/div</th>
<th>1ms/div</th>
<th>2ms/div</th>
<th>5ms/div</th>
<th>10ms/div</th>
<th>20ms/div</th>
<th>50ms/div</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sampling period</td>
<td>50ms</td>
<td>100ms</td>
<td>200ms</td>
<td>500ms</td>
<td>1ms</td>
<td>2ms</td>
<td>5ms</td>
<td>10ms</td>
<td>20ms</td>
<td>50ms</td>
</tr>
<tr>
<td>Recording Time</td>
<td>0.6s</td>
<td>1.6s</td>
<td>3.2s</td>
<td>6s</td>
<td>16s</td>
<td>32s</td>
<td>1min20s</td>
<td>2min</td>
<td>4min</td>
<td>8min</td>
</tr>
</tbody>
</table>

**Trigger functions**

- **Trigger mode**: MEMORY (high-speed recording), FFT: Single, Repeat, Auto RECORD (real-time recording): Single, Repeat

- **Trigger sources**: CH1 to CH10 (analog), Standard Logic 16ch + Logic Unit (Max. 3 units 48 channels), External, Timer, Manual (either ON or OFF for each source), Logical AND/OR of sources

- **Trigger types**:  
  - Level: Triggering occurs when preset voltage level is crossed (upwards or downwards)  
  - Voltage drop: Triggering occurs when voltage drops below peak voltage setting (for 5,500 Hz AC power lines only)  
  - Window: Triggering occurs when window defined by upper and lower limit is entered or exited  
  - Period: Rising edge or falling edge cycle of preset voltage value is monitored and triggering occurs when defined cycle range is exceeded  
  - glitch: Triggering occurs when pulse width from rising or falling edge of preset voltage value is under run  
  - Event setting: Event count is performed for each source, and triggering occurs when a preset count is exceeded  
  - Logic: 1, 0, or x, Pattern setting

- **Level setting resolution**: 0.1% of full scale (full scale = 20 div/ans)

- **Trigger filter**: Selectable 0 to 1000 ms/div, or OFF (at MEMORY function)  
  ON (10ms fixed) or OFF (at RECORDER function)*

- **Trigger output (MR8741 only)**: Open collector (5 voltage output, active Low)
  - At Level setting: pulse width (Sampling period) x data number after trigger  
  - At Pulse setting: pulse width (2ms)

- **Other functions**: Trigger priority (OFF/ON), Pre-trigger function for capturing data before / after trigger event (at MEMORY function), Level display during trigger standby, Start and stop trigger (at RECORDER function)*, Trigger search function

**FFT**

- **Analysis mode**: Storage waveform, Linear spectrum, RMS spectrum, Power spectrum, Density of power spectrum, Cross power spectrum, Auto-correlation function, Histogram, Transfer function, Cross-correlation function, Impulse response, Coherence function, 1/3 Octave analysis, 1/3 Octave analysis, LPC analysis, Phase spectrum

- **Analysis channels**: Selectable from all analog input channels  
  - Frequency range: 133 mHz to 8 MHz, External, (resolution 1/400, 1/800, 1/2000, 1/4000)
  - Number of sampling points: 1000, 2000, 3000, 10000 points

- **Window functions**: Rectangular, Hanning, Hamming, Blackman, Blackman-Harris, Flattop, Exponential

- **Display format**: Single, Dual, Nyquist, Running spectrum

- **Averaging function**: Time axis / frequency axis simple averaging, Exponential averaging, Peak hold (frequency axis), Averaging times: 2 times to 10,000 times

**Other functions**

- **Waveform judgment function (in MEMORY or FFT function)**:  
  - Area comparison with reference waveform area for time domain waveform, X-Y waveform, FFT waveform analysis
  - Maximum loadable file size: Maximum file size that can be saved by a given device (file size may be limited depending on the computer configuration)
  - Output: GO/NG decision, Open-collector 5V
  - Note: Auto triggers in wave real-time at sampling speeds of 100ms/div (lines sampling or above)

**WAVE PROCESSOR 9335 (option)**

- **Supported units**: Model MR8741/8740 (9335 Ver12.4 or later) or other

- **Operating environment**: Computer running under Windows 8/7 (32/64-bit), Vista (32-bit), XP, 2000

- **Display functions**: Waveform display, X-Y display, Digital value display, Cursor function, Scroll function, Maximum number of channels (32-channels analog, 3 channels logic), Gauge display time, voltage axis, Graphical display

- **File loading**: Realizable data formats (MEM, REC, RMS, POW), Maximum loadable file size: Maximum file size that can be saved by a given device (file size may be limited depending on the computer configuration)

- **Data conversion**: Conversion to CSV format, Tab-delimited, Space delimited, Data culling (simple), Convert for specified channel, Batch conversion of multiple files

- **Print functions**: Printing image file output expanded MEGA type (*.MEF*), Supported printer: usable on any printer supported by operating system

- **Other**: Parameter calculation, Search, Clipboard copy, Labeling of other applications

<table>
<thead>
<tr>
<th>Time axis</th>
<th>06min 40s</th>
<th>13min 20s</th>
<th>20min 00s</th>
<th>33d 16h</th>
<th>55d 13h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sampling period</td>
<td>06min 40s</td>
<td>13min 20s</td>
<td>20min 00s</td>
<td>33d 16h</td>
<td>55d 13h</td>
</tr>
<tr>
<td>Recording Time</td>
<td>06min 40s</td>
<td>13min 20s</td>
<td>20min 00s</td>
<td>33d 16h</td>
<td>55d 13h</td>
</tr>
</tbody>
</table>
Configuration of options

Input modules

Input cables are not supplied. Please purchase the appropriate cable for the intended application.

Install by inserting into the main unit. Can be replaced by user.

- ANALOG UNIT
- TEMP UNIT
- HIGH RESOLUTION UNIT
- STRAIN UNIT
- DC/RMS UNIT
- LOGIC UNIT
- DVM UNIT

For individual units’ specifications, see pages 6 and 7.

MR8740

MR8741

Voltage measurement

*Input voltages are limited to the voltage specifications of the input unit to which the cord, clip, or probe is attached.

High-voltage measurement - requires separate power supply shown below

Voltage measurement for MR8990

Current measurement

Universal clamp-on sensor is used for current measurements up to 20kA rms. 1mV AC output, 200 to 500kHz response.

Current measurement directly to the analog input module.

Logic signal measurement

PC Software

WAVE PROCESSOR 9335

Conversion adapter 9199

Other options

- Portable recorder is designed for maximum mobility.
- Record data to a CF card and the built-in hard disk.
- XY recorder functionality.
- Available in three models with different memory capacities. Cannot be used with the MR8990 DVM Unit.

Also available: MR8847 MEMORY HiCORDER series

Same specifications as the MR8741!

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