

# Specifications (Accuracy guaranteed for 1 year)

Basic specifications	
Measurement functions	High-speed function (high speed recording) Real-time function (actual time recording)
Number of channels	4 analog + 8 logic Isolated analog channels, isolated input and outputs, logic has common GND.
Maximum sampling rate	1M samples/s (1 $\mu$ s cycle, all channels simultaneously)
Memory capacity	14bit $\times$ 1 M words/ch (1 word = 2 bytes, not expandible)
External memory	CF card slot $\times$ 1 (Up to 2 GB, supports FAT16 and FAT32 formats) USB memory $\times$ 1 (USB 2.0 -A receptacle)
Time accuracy (at 23°C)	Sampling time accuracy: $\pm$ 0.0005 %, Clock precision: $\pm$ 3s/day
Backup function (reference value at 23°C)	Clock and settings: 10 years or more (at 25°C / 77°F) Waveform backup function: Approx. 40 minutes • When instrument is powered off at least 3 minutes after being turned on
External control	External trigger input, Trigger output, external start input, external stop input, status output, ground pin
Interface	USB: 1 port USB 2.0 High Speed mini-B receptacle Functions: Configure settings/performance measurement using communications commands: transfer file stored in CF/USB memory to computer (USB drive mode)
Environmental conditions for use (no condensation)	Temperature range: -10°C (14°F) to 50°C (122°F) Humidity range: -10°C (14°F) to 40°C (104°F), 80% rh or less 40°C (104°F) to 45°C (113°F), 60% rh or less 45°C (113°F) to 50°C (122°F), 50% rh or less When powered by BATTERY PACK Z1000: 0°C (32°F) to 40°C (104°F), 80% rh or less When recharging the Z1000: 10°C (50°F) to 40°C (104°F), 80% rh or less
Environmental conditions for storage (no condensation)	Temperature range: -20°C (-4°F) to 60°C (140°F) Humidity range: 80% rh or less (-20°C (-4°F) to 40°C (104°F)), 60% rh or less (40°C (104°F) to 45°C (113°F)), 50% rh or less (45°C (113°F) to 60°C (140°F)) BATTERY PACK Z1000: -20°C (-4°F) to 40°C (104°F), 80% rh or less
Compliance standard	Safety: EN61010 EMC: EN61326, EN61000-3-2, EN61000-3-3 Vibration resistance: JIS D 1601, Type 1: passenger vehicle, Conditions: equivalent to Type A
Power requirements	1) AC ADAPTER Z1002: 100 to 240V AC (50/60 Hz) 2) BATTERY PACK Z1000: 7.2V DC Note: LR6/AA alkaline batteries are not sufficient to power the unit when it is connected with the Printer Unit MR9000. Use of other power supplies is required. (Continuous operating time is given as a reference value at 23°C.)
Charging functions (reference value at 23°C)	Charging time is about 3 hours (can be charged by connecting the AC adapter while the Z1000 battery pack is attached)
Max. rated power	1) When instrument is powered with the Z1002 AC adapter or an external DC power supply: 11 VA <sup>*1</sup> , 10 VA <sup>*2</sup> , 40 VA <sup>*3</sup> 2) When instrument is powered with the Z1000 battery pack; 9 VA <sup>*1</sup> , 8 VA <sup>*2</sup> , 22 VA <sup>*3</sup> <sup>*1</sup> Real-time data storage, backlight on <sup>*2</sup> Real-time data storage, backlight off <sup>*3</sup> Real-time data storage, backlight on, with printer used
Dimensions, mass (including battery pack)	205 mm (8.07 in)W $\times$ 199 mm (7.83 in)H $\times$ 67 mm (2.64 in)D, 1.66 kg (58.6 oz) (printer detached) 303 mm (11.93 in)W $\times$ 199 mm (7.83 in)H $\times$ 67 mm (2.64 in)D, 2.16 kg (76.2 oz) (printer attached)
Accessories	Instruction manual $\times$ 1, AC adapter Z1002 $\times$ 1, Alkaline battery box $\times$ 1, Strap $\times$ 1, USB cable $\times$ 1, Application disk (Wave viewer Wv, Communication commands table) $\times$ 1
Function	
Presets	Select from basic measurement guide, example measurement guide, and commands for loading internally stored settings.
Scaling function	Select decimal or scientific notation for each channel. 1) Scaling ratio: Select scaling ratio, offset value, and units. 2) Two-point configuration: Set input values, post-scaling values, and units. 3) HIOKI sensor: Set HIOKI clamp-on probe and range value. 4) Output rate setting: Select scaled value per 1 V from a list.
Data protection	Open files are closed before the instrument turns itself off when a power outage occurs while saving data to recording media. When powering the instrument with a battery, open files are closed and access to the media is stopped when remaining battery power falls below a certain level. *Valid when at least 3 minutes has elapsed since the instrument was turned on.
Reservation function	Up to 10 measurement start and measurement stop conditions can be set.
Other	Settings can be automatically loaded from internal memory or media when the instrument is turned on. Up to 10 settings can be saved in the instrument's internal memory.
Printer (Printer Unit MR9000 docks onto the main device)	
Features	Printer paper one-touch loading, high-speed thermal printing
Printer paper	112 mm (4.4 in) $\times$ 18 m (59.06 ft), thermal paper roll (using 9234) Recording width: 100 mm, 10 div f.s., 1 div=10 mm (80 dot/div)
Recording speed	Max. 10 mm/s (0.39 inch/s) (Printing is not supported when using alkaline batteries.)

High-speed function (high speed recording)	
Time axis	100 $\mu$ s to 100ms/div, 10 range, resolution: 100 points/div
Sampling period	1/100 of time axis ranges (minimum sampling period 1 $\mu$ s, all channels simultaneously)
Recording length	5 to 10000 divisions fixed (5division steps)
Automatic save function	Binary data, text data, calculation results, binary + calculation results, text + calculation results, or NONE
Other save functions	Save and delete function: ON/OFF
Screen settings	Split screen (1, 2, or 4 segments), X-Y waveform compositing (1 screen)
Pre-trigger	Can record data from before the trigger point, 0 to 100 % of recording length; 13 settings, or user-configured
Waveform scrolling	Backwards scrolling through past waveform data both during and after measurement
Calculation functions	Up to four arithmetic operations simultaneously Average value, effective (RMS) value, peak to peak value, maximum value, time to maximum value, minimum value, time to minimum value, period, and frequency, area, X-Y area.

Real-time function (actual time recording)	
Recording interval	100 $\mu$ s to 500 $\mu$ s, 1ms to 500ms, 1s to 1min, 19 settings Display time axis: 10ms to 1day/div, 22 ranges
Real-time printing (with optional MR9000)	ON/OFF *Simultaneous printing: Supported when using a time axis slower than 1 s/div.
Recording Time	Continuous save to CF card or USB memory can be set ON/OFF
Envelope mode	ON/OFF
Waveform recording	The last 1 M words (before measurement was stopped) are saved in the instrument's internal memory (when envelope mode is on, 500 kwords).
Real-time save function	Binary data, text data, calculation results, binary + calculation results, text + calculation results, or NONE
Other save functions	Split save: ON/OFF/fixed time Save and delete: ON/OFF Eject media: Media can be ejected while saving data in real time.
Event marks	1) Event marks can be input during measurement (up to 100 marks). 2) Can move to waveform before or after an event mark based on specified event number input.

Trigger function	
Repeat recording	Single/Repeat
Trigger timing	High-speed function: Start Real-time function: Start, Stop, Start & Stop
Trigger conditions	AND/OR supported for all trigger sources Trigger sources can be selected for each channel. Instrument enters free-run mode when all trigger sources are off.
Trigger source	1) Analog input CH1 - CH4 2) Logic input LA1 - LA4, LB1 - LB4 (4ch $\times$ 2 probes) 3) External trigger 4) Interval trigger: Fixed-time recording for specified measurement interval (month/day/hours/minutes/seconds)
Trigger types	1) Level 2) In 3) Out 4) Voltage drop (High-speed function) : For AC 50/60 Hz power lines 5) Waveform judgment (High-speed function): For AC 50/60 Hz power lines 6) Logic 7) External: Rising edge/falling edge
Level setting resolution	0.1 % f.s. (f.s.=10 div)
Trigger filter	High-speed function: 7 settings from 10 to 1000 samples or OFF Real-time function: ON/OFF
Trigger output	Open collector (5 V output, active Low)

Analog input (Accuracy defined at 23 $\pm$ 5°C, 80% rh or less, for measurements taken following zero adjustment 30 minutes after instrument is turned on)	
Measurement functions	4-channel voltage measurement; switchable between instantaneous value (waveform) and RMS value
Input connectors	Isolated BNC connector (input impedance 1 M $\Omega$ , input capacitance 7 pF)
Max. rated voltage to earth	600 V AC, DC CAT III / 300 V AC, DC CAT IV (with input isolated from the unit, the maximum voltage that can be applied between input channel and chassis and between input channels without damage)
Measurement range	10 mV to 100 V/div, 13 ranges, full scale: 10 div, AC voltage that can be measured and displayed using high-speed function: 600 Vrms Low-pass filter: 5 Hz/50 Hz/500 Hz/5 kHz/50 kHz
Measurement resolution	1/640 of measurement range (using 14-bit A/D conversion, at $\times$ 1)
Highest sampling rate	1 MS/s (simultaneous sampling in 4 channels)
Instantaneous value measurement accuracy	$\pm$ 0.5% f.s. (after zero-adjust)
RMS measurement	RMS accuracy: $\pm$ 1.5% f.s. (30Hz to 1kHz) $\pm$ 3% f.s. (1kHz to 10kHz) Response time: 300ms (rising edge 0 to 90% of full scale with filter off) Crest factor: 2
Frequency characteristics	DC to 100 kHz $\pm$ 3dB
Input coupling	DC/GND
Max. rated voltage between terminals	600 V AC, DC (maximum voltage which when applied to between input terminals does not damage them)

Screen display	
Display	5.7-inch VGA-TFT color LCD (640 × 480dot)
Waveform display scale	Time axis: × 10 to × 2 (zoom view supported for high-speed recording only), × 1, × 1/2 to × 1/2,000 Voltage axis: × 20 to × 2, × 1, × 1/2 to × 1/10
Comment input	Titles and comments input for individual channels
Logic waveform display	Select 2 recording widths; display positions can be set separately
Display items	Waveform display; simultaneous display of waveform and gage; simultaneous display of waveform, gage, and settings; simultaneous display of waveform and calculation results; simultaneous display of waveform and cursor values (A/B cursor values) The following display items are supported when using real-time functionality:
Monitor function	Value (instantaneous value or RMS value) and measured waveform (monitor screen display with refresh rate of 0.5 sec) Display digits: 5
Instantaneous value display	Time: Display of time elapsed since start of measurement or trigger point Date: Display of date and time at which data was captured Number of data points: Display of number of data points captured since start of measurement
Other display functions	<ul style="list-style-type: none"> <li>• Cursor measurement (two cursors [A/B], support for all channels)</li> <li>• Upper and lower limits can be set (to align waveform amplitude with upper and lower limits).</li> <li>• The zero position of the analog waveform can be moved in 1% steps.</li> <li>• The waveform display can be set to any of 24 colors.</li> <li>• Zero adjustment can be performed for all channels and ranges at once.</li> </ul>

## PC Software Specifications Bundled with the MR8880 in the CD-R

Wave Viewer (Wv) Software	
Functions	<ul style="list-style-type: none"> <li>• Simple display of waveform file</li> <li>• Text conversion: convert binary data file to text format, with selectable space or tab separators in addition to CSV, and specifiable section, thinning available</li> <li>• Display format settings: scroll functions, enlarge/reduce display, display channel settings</li> <li>• Others: voltage value trace function, jump to cursor/trigger position function</li> </ul>
Operating environment	Windows 10/8/7 (32/64-bit)

## Specifications of Options (sold separately)

Cable length and mass: Main unit cable 1.5 m (4.92 ft), input section cable 30 cm (0.98 ft), approx. 150 g (5.3 oz)  
Note: The unit-side plug of the 9320-01 is different from the 9320.



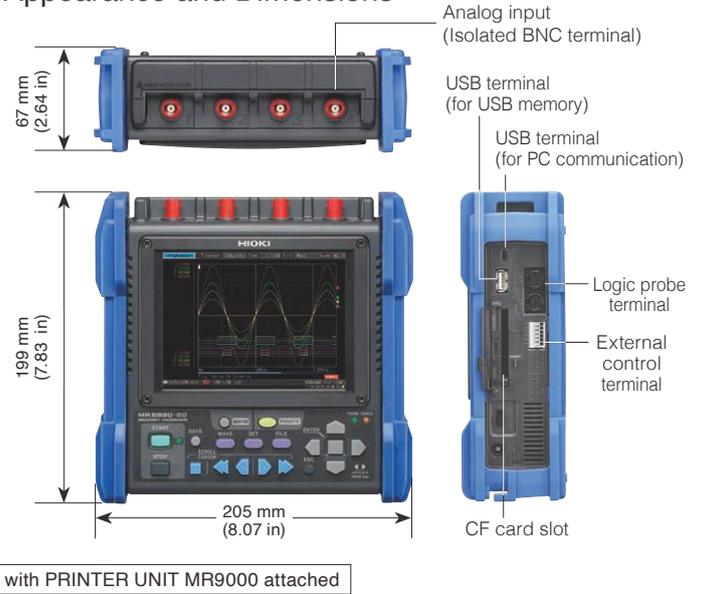
LOGIC PROBE 9320-01	
Function	Detection of voltage signal or relay contact signal for High/Low state recording
Input	4 channels (common ground between unit and channels), digital/contact input, switchable (contact input can detect open-collector signals) Input resistance: 1 MΩ (with digital input, 0 to +5 V) 500 kΩ or more (with digital input, +5 to +50V) Pull-up resistance: 2 kΩ (contact input: internally pulled up to +5 V)
Digital input threshold	1.4V/ 2.5V/ 4.0V
Contact input detection resistance	1.4 V: 1.5 kΩ or higher (open) and 500 Ω or lower (short) 2.5 V: 3.5 kΩ or higher (open) and 1.5 kΩ or lower (short) 4.0 V: 25 kΩ or higher (open) and 8 kΩ or lower (short)
Detectable pulse width	500 ns or longer
Max. allowable input	0 to +50V DC (the maximum voltage that can be applied across input pins without damage)

Cable length and mass: 70 cm (2.30 ft), Output side: 1.5 m (4.92 ft), 170g (6.0 oz)



DIFFERENTIAL PROBE P9000 (Accuracy guaranteed for 1 year)	
Measurement modes	P9000-01: For waveform monitor output, Frequency properties: DC to 100 kHz -3 dB P9000-02: Switches between waveform monitor output/AC effective value output Wave mode frequency properties: DC to 100 kHz -3 dB, RMS mode frequency properties: 30 Hz to 10 kHz, Response time: Rise 300 ms, Fall 600 ms
Division ratio	Switches between 1000:1, 100:1
DC output accuracy	±0.5 % f.s. (f.s. = 1.0 V, division ratio 1000:1), (f.s. = 3.5 V, division ratio 100:1)
Effective value measurement accuracy	±1 % f.s. (30 Hz to less than 1 kHz, sine wave), ±3 % f.s. (1 kHz to 10 kHz, sine wave)
Input resistance/capacity	H-L: 10.5 MΩ, 5 pF or less (at 100 kHz)
Maximum input voltage	1000 V AC, DC
Maximum rated voltage to ground	1000 V AC, DC (CAT III)
Operating temperature range	-40°C to 80°C (-40°F to 176°F)
Power supply	(1) AC adapter Z1008 (100 to 240 V AC, 50/60 Hz), 6 VA (including AC adapter), 0.9 VA (main unit only) (2) USB bus power (5 V DC, USB-microB terminal), 0.8 VA (3) External power source 2.7 V to 15 V DC, 1 VA
Accessories	Instruction manual ×1, Alligator clip ×2, Carrying case ×1

## Appearance and Dimensions



with PRINTER UNIT MR9000 attached

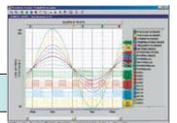


Cable length and mass: Main unit cable 1.5 m (4.92 ft), input section cable 1 m (3.28 ft), approx. 320 g (11.3 oz)  
Note: The unit-side plug of the MR9321-01 is different from the MR9321.



LOGIC PROBE MR9321-01	
Function	Detection of AC or DC relay drive signal for High/Low state recording Can also be used for power line interruption detection
Input	4 channels (isolated between unit and channels), HIGH/LOW range switching Input resistance: 100 kΩ or higher (HIGH range), 30 kΩ or higher (LOW range)
Output (H) detection	170 to 250 V AC, ±DC 70 to 250 V (HIGH range) 60 to 150 V AC, ±DC 20 to 150 V (LOW range)
Output (L) detection	0 to 30 V AC, ±DC 0 to 43 V (HIGH range) 0 to 10 V AC, ±DC 0 to 15 V (LOW range)
Response time	Rising edge 1 ms max., falling edge 3 ms max. (with HIGH range at 200 V DC, LOW range at 100 V DC)
Max. allowable input	250 Vrms (HIGH range), 150 Vrms (LOW range) (the maximum voltage that can be applied across input pins without damage)

WAVE PROCESSOR 9335	
Distribution media	One CD-R
Operating environment	Computer running under Windows 10/8/7 (32/64-bit)
Display functions	Waveform display, X-Y display, Digital value display, Cursor function, Scroll function, Maximum number of channels (32 channels analog, 32 channels logic), Gauge display (time, voltage axes), Graphical display
File loading	Readable 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	<b>Conversion to CSV format</b> , Tab delimited, Space delimited, Data culling (simple), Convert for specified channel, Batch conversion of multiple files
Print functions	Printing image file output (expanded META type, "EMF"), Supported printer: usable on any printer supported by operating system Print formatting: (1 up, 2-to-16 up, 2-to-16 rows, X-Y 1-to-4 up, preview, hard copy)
Other	Parameter calculation, Search, Clipboard copy, Launching of other applications



## MR8880 Options in Detail

**\*Voltage is limited to the specifications of the input section**

**Recommended**

**Input cable (A)**

**ALLIGATOR CLIP L9790-01**  
Red/black set attaches to the ends of the cables L9790

**CONTACT PIN 9790-03**  
Red/black set attaches to the ends of the cables L9790

**GRABBER CLIP 9790-02**  
Red/black set attaches to the ends of the cables L9790  
\*When this clip is attached to the end of the L9790, input is limited to CAT II 300 V. Red/black set.

**CONNECTION CORD L9790**  
Flexible  $\phi$  4.1 mm (0.16 in) thin dia., cable allowing for up to 600 V input. 1.8 m (5.91 ft) length  
\*The end clip is sold separately.

L9790 L9790-01 9790-03 9790-02

**\*Voltage is limited to the specifications of the input section**

**Input cable (B)**

**CONNECTION CORD L9198**  
 $\phi$  5.0 mm (0.20 in) dia., cable allowing for up to 300 V input. 1.7 m (5.58 ft) length, small alligator clip

**GRABBER CLIP 9243**  
Attaches to the tip of the banana plug cable, CAT III 1000 V, 196 mm (7.72 in) length

**CONNECTION CORD L9197**  
 $\phi$  5.0 mm (0.20 in) dia., cable allowing for up to 600 V input. 1.8 m (5.91 ft) length, a detachable large alligator clips are bundled

**\*Voltage to ground is within this product's specifications. Separate power source is also required.**

**Input cable (C)**

**DIFFERENTIAL PROBE P9000-01**  
Waveform only, up to 1 kV AC/DC, band width up to 100kHz

**DIFFERENTIAL PROBE P9000-02**  
Waveform/RMS value switchable, up to 1 kV AC/DC, band width up to 100kHz

**AC ADAPTER Z1008**  
100 to 240 V AC

**Custom cable**

\*For P9000. Inquire with your Hioki distributor.

- (1) Bus powered USB cable
- (2) USB(A)- Micro B cable
- (3) 3-prong cable

**\*Voltage to ground is within this product's specifications. Separate power source is also required.**

**Input cable (E)**

**DIFFERENTIAL PROBE 9322**  
For up to 1kV AC or 2kV DC, frequency band width up to 10MHz

**AC ADAPTER 9418-15**  
100 to 240 V AC.

**\*Only the small terminal types can be used.**

**Logic signal measurement**

**LOGIC PROBE 9320-01**  
4-channel type, for voltage/contact signal ON/OFF detection (response pulse width 500 ns or more, miniature terminal type)

**LOGIC PROBE MR9321-01**  
4 isolated channels, ON/OFF detection of AC/DC voltage (miniature terminal type)

**Other options**

**CARRYING CASE C1003**  
Includes compartment for options, soft case type

**CONNECTION CORD L9217**  
Cord has insulated BNC connectors at both ends, for signal output, 1.6 m (5.25 ft) length



Model : MEMORY HiCORDER MR8880

Model No. (Order Code) (Note)

MR8880-20 (4ch, printer unit option)

\*Test leads are not included. Purchase the leads appropriate for your application separately

**Printer options**

**PRINTER UNIT MR9000**  
Printing width 100 mm (3.94 in), used together with the MR8880-20 main body, includes 1 roll of recording paper

**RECORDING PAPER 9234**  
112 mm (4.41 in)  $\times$  18 mm (59.06 ft), roll type, 10 rolls/set

**MR8880 + MR9000**

Includes a PC card adapter with the 9728/9729, and the 9830  
Use only CF Cards or USB drive sold by HIOKI. Compatibility and performance are not guaranteed for CF cards/USB memory stick made by other manufacturers. You may be unable to read from or save data to such cards.

**Storage media**

**PC CARD 2G 9830**  
2 GB capacity

**PC CARD 1G 9729**  
1 GB capacity

**PC CARD 512M 9728**  
512 MB capacity

**USB DRIVE Z4006**  
16 GB, Long-life, High-reliability SLC Flash Memory

**\*Z1002 is a bundled accessory**

**Power supply**

**AC ADAPTER Z1002**  
For main unit, 100 to 240 V AC

**BATTERY PACK Z1000**  
NiMH. Charges while installed in the main unit

\*A separate power supply (CT955X) is required in order to use a high-precision current sensor.  
\*Only sensors with ME15W (12-pin) terminals (-05 type) can be connected to the CT955X.  
\*The separately available Conversion Cable CT9900 is required in order to use a sensor with PL23 (10-pin) terminal

**POWER SUPPLY for Current Sensors**

**SENSOR UNIT CT9555 1ch, with Waveform output**

**CONNECTION CORD L9217**  
Cord has insulated BNC connectors at both ends, 1.6 m (5.25 ft) length

**PL23 (10-pin) - ME15W (12-pin) conversion**

**CONVERSION CABLE CT9900**  
Convert PL23 (10-pin) terminal to ME15W (12-pin) terminal

**Up to 1000 A (High precision) \*ME15W (12-pin) terminal type**

High-precision pull-through type, monitor the waveforms of DC to distorted AC current

**AC/DC CURRENT SENSOR CT6875**, 2 MHz band width, 500A

Monitor the waveforms of DC to distorted AC current

**AC/DC CURRENT PROBE CT6844-05**, 200 kHz band width, 500A

**AC/DC CURRENT PROBE CT6845-05**, 100 kHz band width, 500A

**AC/DC CURRENT PROBE CT6846-05**, 20 kHz band width, 1000A

**Precautions when connecting a high-precision current sensor to a Memory HiCORDER**  
Connecting to the MR8880/MR8875/MR8870

- High-precision current sensor (ME15W) + CT9555 + BNC cable  $\rightarrow$  MR8880
- High-precision current sensor (PL23) + CT9900 + CT9555 + BNC cable  $\rightarrow$  MR8880

**Other current sensor types**

The MR8880 can be used with various types of current sensors and probes. For details, see product information on Hioki's website.

The CM7290 (available separately) is required in order to use these current sensors

**100 A to 2000 A (Medium speed)**

**AC/DC CURRENT SENSOR CT7631**, (Auto zero CT7731)  
DC, 1 Hz to 10 kHz (-3dB), 100 A, 1 mV/A output

**AC/DC CURRENT SENSOR CT7636**, (Auto zero CT7736)  
DC, 1 Hz to 10 kHz (-3dB), 600 A, 1 mV/A output

**AC/DC CURRENT SENSOR CT7642**, (Auto zero CT7742)  
DC, 1 Hz to 10 kHz (5 kHz), 2000 A, 1 mV/A output

**DISPLAY UNIT CM7290**  
Provides measurement, display, and output functionality when used with the CT7000s.

**DISPLAY UNIT CM7291**  
with built-in Bluetooth® wireless technology

**OUTPUT CORD L9095**  
Connect to BNC terminal, 1.5 m (4.92 ft) length

**500 A to 5000 A \*For commercial power lines, 50/60 Hz**

**CLAMP ON PROBE 9018-50**  
Good phase characteristics, Frequency characteristics: 40 Hz to 3 kHz, 10 to 500 A AC range, output 0.2 V AC f.s.

**CLAMP ON PROBE 9132-50**  
Frequency characteristics: 40 Hz to 1 kHz, 20 to 1000 A AC range, output 0.2 V AC f.s.

**AC FLEXIBLE CURRENT SENSOR CT9667-01/-02/-03**  
10 Hz to 20 kHz, 5000 A/ 500 A AC, 500 mV/f.s. output,  $\phi$  100 to 254 mm (3.94 to 10.00 in), 3 loop diameters

**Leak Current \*For commercial power lines, 50/60 Hz**

**CLAMP ON LEAK HITESTER 3283**  
10 mA range/10  $\mu$ A resolution to 200 A range, with monitor/analog output 1 V f.s.

**OUTPUT CORD L9095**  
Connect to BNC terminal, 1.5 m (4.92 ft) length

**AC ADAPTER 9445-02**  
100 to 240 V AC

**AC ADAPTER 9445-03**  
For EU 100 to 240 V AC

**Non-contact voltage measurement**

**NON-CONTACT AC VOLTAGE PROBE SP3000-01**  
5 Vrms rated, 10 Hz to 100 kHz band width

**NON-CONTACT AC VOLTAGE PROBE SP3000**  
Sold individually

**AC VOLTAGE PROBE SP9001**  
Sold individually

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