

HIOKI

Field Measuring Instruments

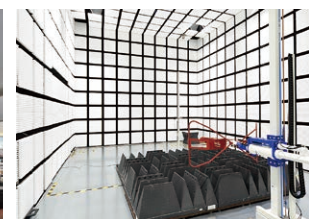
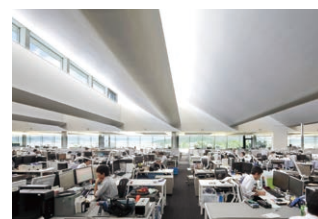


2026

Field-Proven Strength.

Measurement • Protection • Advancement

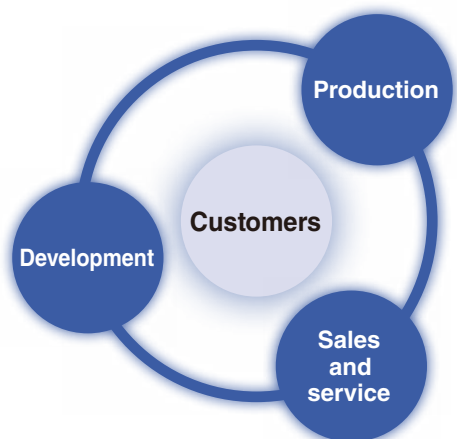
Since 1935



In our mission to provide measurement technologies that protect the safety of society, we seek to contribute to the advancement of a brighter and more prosperous future.

Hioki's measurement technology is widely used in the maintenance, repair and operation of factories, businesses and infrastructures, contributing to the safety and security of our daily lives.

We also support the development of next generation technologies in the automotive and new energy sectors by delivering high quality instruments at a reasonable cost.



Founded in 1935, Hioki has grown to become a world leader in providing consistent delivery of tests and measuring instruments. By integrating both R&D and manufacturing in a central facility, we succeed in implementing a fully sustainable end-to-end product innovation life cycle to deliver instruments characterized by precision, safety, and quality to customers around the world.

HIOKI, an R&D-focused company

Technology advances on a daily basis, making possible safer and more comfortable human lifestyles and helping make dreams come true. The measuring instruments that underpin these advances also continue to evolve. To develop electrical measuring instruments that meet the changing needs of our times, one-third of all HIOKI employees work in research and development, an area where we invest approximately 10% of all revenue.

Pursuing agile production

HIOKI works to implement optimal production structures that are capable of meeting changing market needs with high-quality products. Due to the nature of electrical measuring instruments, which serve as yardsticks for measuring electricity, it is necessary to ensure a high level of quality in their production. Working with the cooperation of suppliers, we continuously strive to ensure our manufacturing operations conform to the world's highest standards of product quality.

Practicing customer-centric sales

Working with distributors, we actively visit customers to resolve their concerns. Information obtained during these visits is also utilized in product development, laying the groundwork for our ability to create products that satisfy our customers.



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About the Catalog

About the Marks
















	Compliant with CE
	Compliant with CSA



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 *For the latest information about countries and regions where wireless operation is currently supported, please visit the Hioki website.

	Safety standard measurement categories*
	Drop proof Robust design capable of withstanding a drop from a height of 1 m onto concrete
	Backlight
	Auto power OFF Automatically turns off after a certain time
	Display hold
	True RMS True RMS measurement for accurate measurement of even distorted current waveforms
	Low-pass filter Cuts high frequency content to provide stable numerical values for measurement
	AUTO AC/DC Automatically detects and measures AC and DC voltage
	Decibel conversion Displays AC voltage measurements converted to decibel values (dbm/dbv)
	MAX/MIN/AVG value* Displays the maximum, minimum, and average of the displayed values
	Peak measurement* Displays the wave maximum and minimum peak values
	Relative display Pressing the REL button displays subsequent measurements as values relative to that displayed when the button was pressed
	Current sensor can be connected
	Flexible current sensor can be connected

*For more detailed information, please refer to p.3.

	AC voltage
	DC voltage
	DCV + ACV
	Frequency
	Resistance
	Capacitance
	Temperature
	ACA current
	DCA current
	DCA + ACA
	DC Power
	Continuity check Buzzer sounds when continuity is detected
	Diode check Displays voltage if in the correct direction, and OVER if in the reverse direction
	Voltage detection Buzzer sounds when AC voltage is detected
	Inrush (rush current) Measures inrush current when power is turned on, etc.

Product Warranties



Hioki products are generally covered by a three-year warranty.

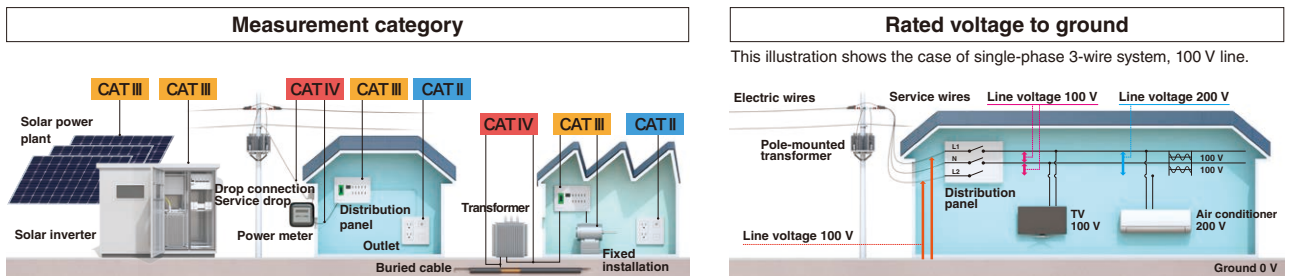
*Exclusions apply.

Product warranty	In the event Hioki is responsible for the failure of a product during the warranty term beginning on the date of purchase (or beginning in the month the product was manufactured if the date of purchase is unclear), we will repair or replace the product free of charge.
Warranty scope	We check products on a standalone basis to verify their specifications, performance, and functionality. Although we verify proper operation of components that are connected to Hioki products in standard configurations, we ask that customers verify proper operation of their Hioki products when connected to other manufacturers' products. The scope of Hioki's warranty is limited to Hioki products. Connected devices and issues caused by connected devices are considered outside the scope of the warranty. In the event of physical damage, any compensation that might be provided by Hioki is limited to the purchase price of the product.

*For more detailed information, please refer to p.56.

Measurement Category and Anticipated Transient Overvoltage

Under safety standards (EN61010 Series, JIS C 1010 Series), measurement is classified into Categories II to IV according to the measurement point's rated voltage to ground, current capacity (size of current that flows in a short-circuit fault), etc., and the transient overvoltage that occurs at the measurement point.



- CAT II** Measurement at a point from the power plug to the equipment's power circuits, where equipment is directly connected to an outlet.
- CAT III** Measurement at a point on the power distribution cabling or power supply circuits, or at a point from the distribution panel to a distribution terminal behind an outlet, where equipment (for example a fixed installation) takes electricity directly from a distribution panel.
- CAT IV** Measurement at a point on a service drop to a building, or on the line from the drop connection to the power meter or distribution panel.

Anticipated Transient Overvoltage

Rated voltage to ground	Transient overvoltage		
	CAT II	CAT III	CAT IV
300 V	2500 V	4000 V	6000 V
600 V	4000 V	6000 V	8000 V
1000 V	6000 V	8000 V	12000 V
1500 V	8000 V	10000 V	15000 V
2000 V	12000 V	15000 V	18000 V

Power lines in factories and similar facilities will at times include transient overvoltage (impulse voltage) that is around 10 times the power source voltage. The transient overvoltage of the measurement points must be predicted in advance, and the instrument will need a safety design that will enable it to withstand such overvoltage.

Marks

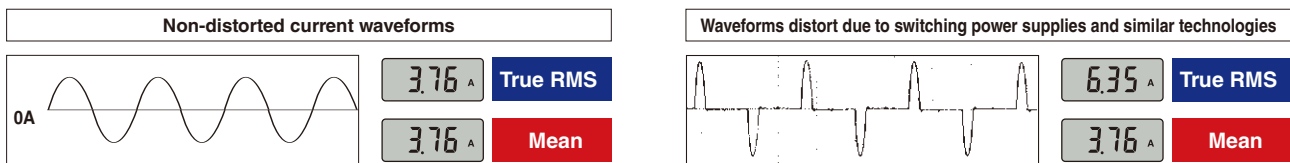
CAT IV **600 V**
 Measurement Category Rated voltage to ground

Assuming 600 V for the measurement point's voltage to ground, a Category IV location could potentially include transient overvoltage of 8000 V. Hence, CAT IV measurement instruments are designed to withstand transient overvoltage of 8000 V. CAT III measurement instruments can only withstand up to 6000 V, so if 8000 V transient overvoltage enters, it will cause insulation breakdown that could result in electric shock.

Never measure a measurement point with a higher category number than the category indicated on the measuring instrument. Doing so could lead to a serious accident such as electric shock.

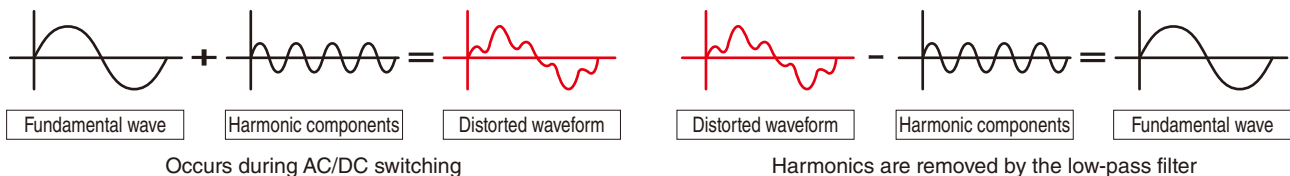
Rectification Methods: True RMS and Mean

A measuring instrument uses one of two rectification methods, "True RMS" or "Mean." Using mean rectification assumes that the signal is based on a sine wave without distortions in order to calculate the value. Distorted waveforms cannot be measured accurately using this method. As the performance of equipment increases, so do distorted waveforms. In order to accurately measure in these situations, using the True RMS method is necessary.

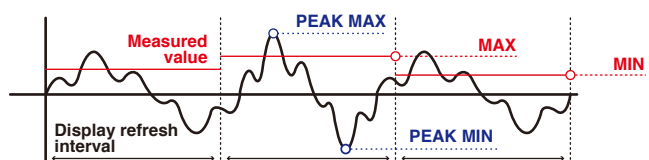


Low-Pass Filter Reduces the Effects of Harmonics and Measures the Fundamental Wave Component Accurately

Switching power supplies and the secondary side of inverters include harmonic components. Waveforms containing harmonics are distorted and difficult to measure with accuracy. By using a low-pass filter to remove harmonic components, accurate measurement values can be obtained.

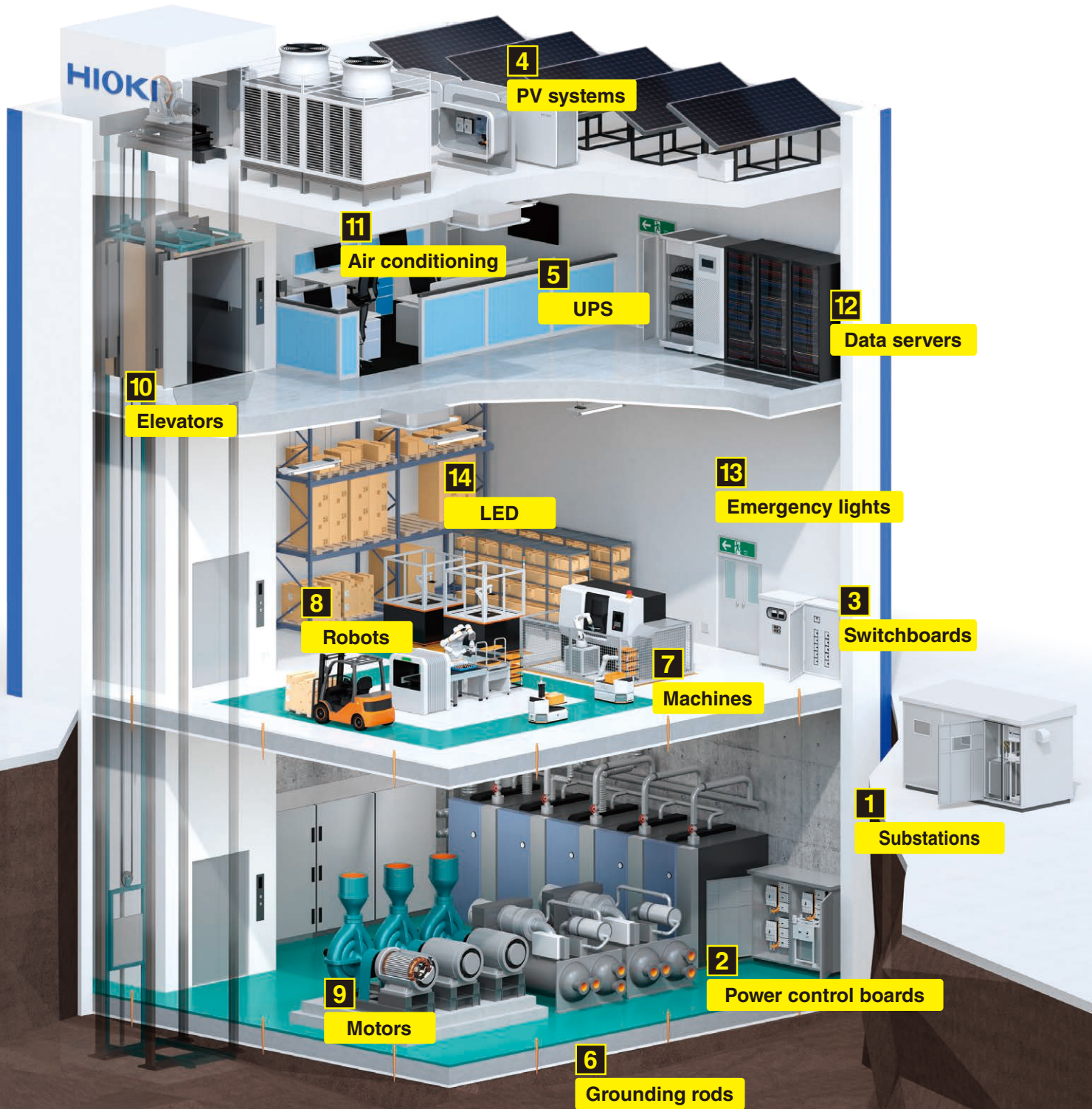


MAX/MIN/AVG/PEAK value











The ability to identify the maximum, minimum, average, and crest maximum and minimum values for equipment like machine tools whose load current fluctuates is useful in preventive maintenance and quality control.

Applications Factory









1 2 3

Power Receiving and Transforming Equipment, Power Control Boards, Switchboards

<p>Verify phase rotation</p>  <p>p.36</p>	<p>Test insulation</p>  <p>p.22</p>	<p>Test supply voltage</p>  <p>p.28</p>	<p>Verify load current</p>  <p>p.12</p>	<p>Detect leakage current</p>  <p>p.12</p>	<p>Detect electrical disturbances, Analyze power quality</p>  <p>p.44</p>	<p>Record and analyze electrical consumption</p>  <p>p.46</p>	<p>Test 5 kV insulation</p>  <p>p.22</p>
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PV Systems

<p>Test PV insulation</p>  <p>p.22</p>	<p>Verify string voltage</p>  <p>p.28</p>	<p>Verify string voltage</p>  <p>p.12</p>	<p>Verify string current</p>  <p>p.12</p>	<p>Test battery resistance and voltage</p>  <p>p.50</p>	<p>Verify grounding</p>  <p>p.38</p>
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5








UPS

6

Earth, Ground

7 8 9

Machines, Robots, Motors







<p>Test supply voltage</p>  <p>p.28</p>	<p>Test load current</p>  <p>p.12</p>	<p>Check temperature</p>  <p>p.54</p>	<p>Verify motor insulation</p>  <p>p.22</p>	<p>Test supply voltage</p>  <p>p.28</p>	<p>Test load current</p>  <p>p.12</p>	<p>Verify phase rotation</p>  <p>p.36</p>
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Elevators

11

Air Conditioning

<p>Check temperature and humidity</p>  <p>p.52</p>	<p>Check temperature</p>  <p>p.54</p>	<p>Test insulation</p>  <p>p.22</p>	<p>Test supply voltage</p>  <p>p.28</p>	<p>Test load current</p>  <p>p.12</p>	<p>Verify LAN wiring</p>  <p>p.53</p>	<p>Measure illuminance</p>  <p>p.54</p>
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12

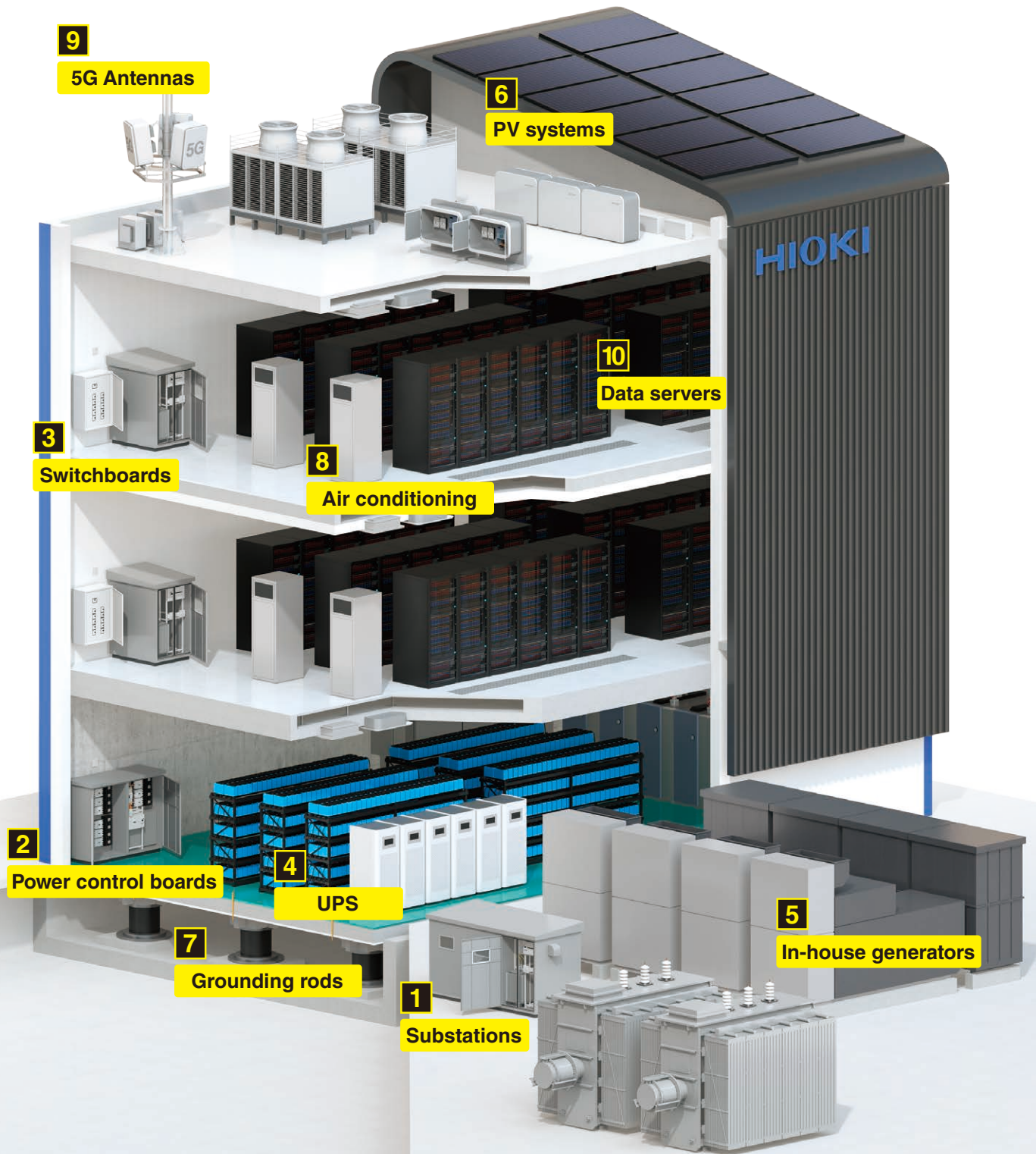
Servers

13 14

Emergency Lights









Applications

Data Centers



1 2 3

Power Receiving and Transforming Equipment, Power Control Boards, Switchboards






<p>Verify phase rotation</p>  <p>p.36</p>	<p>Test insulation</p>  <p>p.22</p>	<p>Test supply voltage</p>  <p>p.28</p>	<p>Verify load current</p>  <p>p.12</p>	<p>Detect leakage current</p>  <p>p.12</p>	<p>Detect electrical disturbances, Analyze power quality</p>  <p>p.44</p>	<p>Record and analyze electrical consumption</p>  <p>p.46</p>	<p>Test 5 kV insulation</p>  <p>p.22</p>
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UPS

5

Power Generators






<p>Test battery resistance and voltage</p>  <p>p.50</p>	<p>Verify motor insulation</p>  <p>p.22</p>	<p>Test supply voltage</p>  <p>p.28</p>	<p>Test load current</p>  <p>p.12</p>	<p>Verify phase rotation</p>  <p>p.36</p>
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PV Systems

7

Earth, Ground







<p>Test PV insulation</p>  <p>p.22</p>	<p>Verify string voltage</p>  <p>p.28</p>	<p>Verify string voltage</p>  <p>p.12</p>	<p>Verify string current</p>  <p>p.12</p>	<p>Verify grounding</p>  <p>p.38</p>
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8 9

Air Conditioning, 5G Antennas

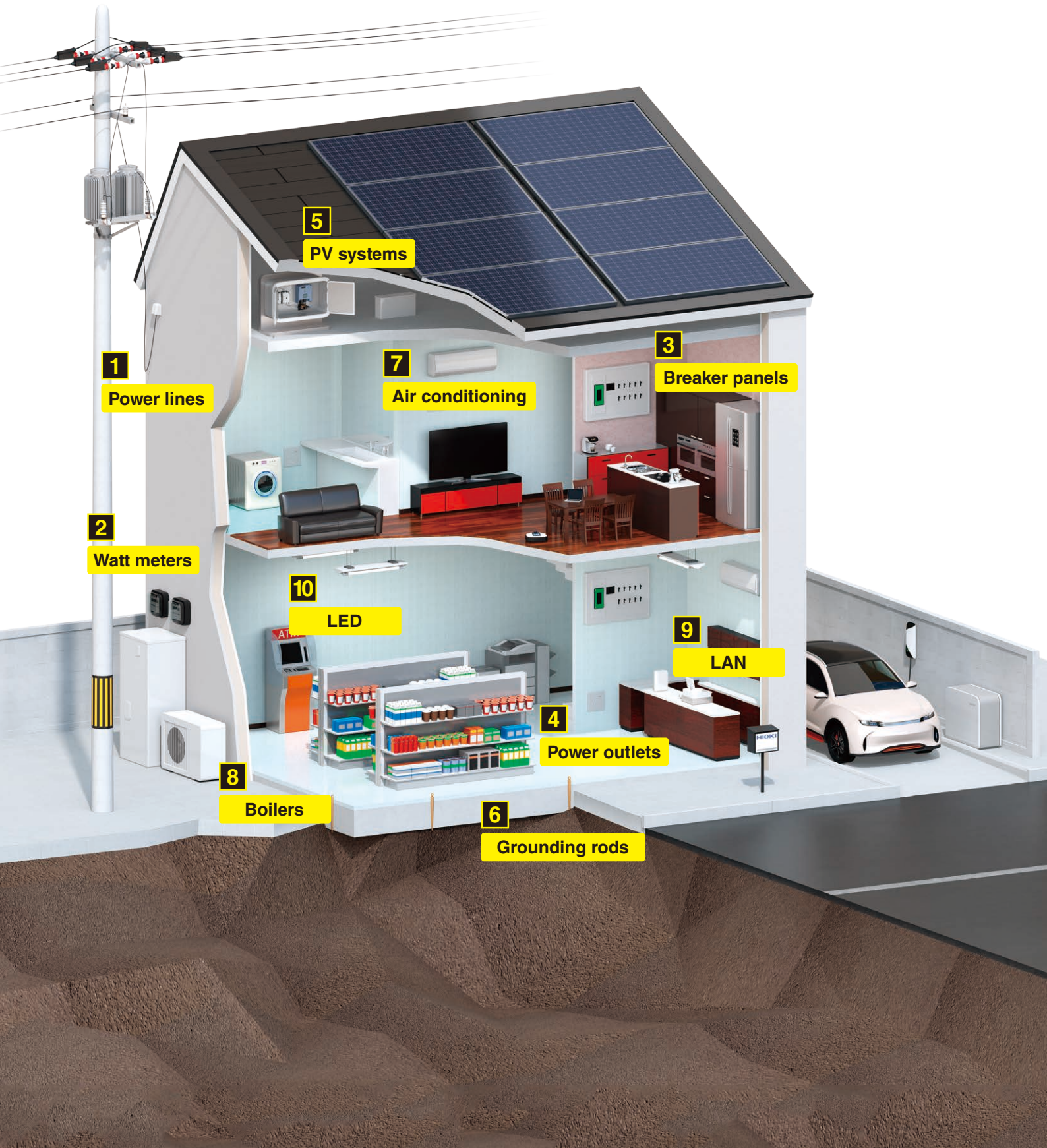
10

Servers

<p>Check temperature and humidity</p>  <p>p.52</p>	<p>Check temperature</p>  <p>p.54</p>	<p>Test insulation</p>  <p>p.22</p>	<p>Test supply voltage</p>  <p>p.28</p>	<p>Test load current</p>  <p>p.12</p>	<p>Verify LAN wiring</p>  <p>p.53</p>
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Applications

Residences & Commercial Buildings






1 2 3

Power Lines, Watt Meters, Breaker Panels

Test insulation	Test supply voltage	Verify load current	Detect leakage current	Record and analyze electrical consumption
				
p.22	p.28	p.12	p.12	p.46






4

Power Outlets

Verify absence of voltage	Test supply voltage	Verify load current
		
p.36	p.28	p.12

5

PV Systems







Test PV insulation	Verify string voltage	Verify string voltage	Verify string current	Verify grounding
				
p.22	p.28	p.12	p.12	p.38

6

Earth, Ground





7

Air Conditioning

Check temperature and humidity	Check temperature	Test insulation	Test supply voltage	Test load current	Detect leakage current
					
p.52	p.54	p.22	p.28	p.12	p.12

8

Boilers

Test insulation	Test supply voltage	Test load current	Detect leakage current
			
p.22	p.28	p.12	p.12

9

LAN

Verify LAN wiring

p.53

10

LED

Measure illuminance

p.54

Manage Data on Mobile Devices and PC

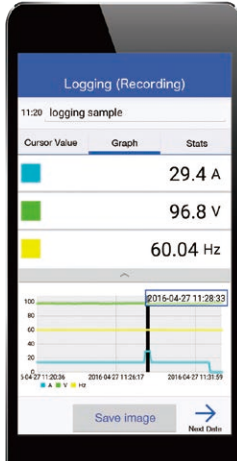
for mobile devices **Gennect Cross**

Checking and saving measured values



The measurement values displayed on the instrument can be displayed and saved on the tablet in real time.

Record fluctuations in measured values



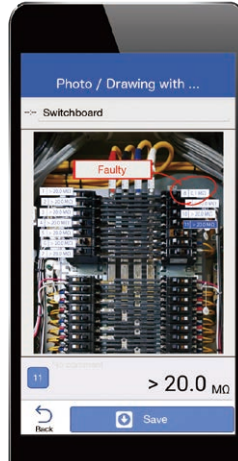
Measurement values can be saved at set recording intervals. You can also check the maximum, minimum, and average values.

Waveform observation, FFT analysis



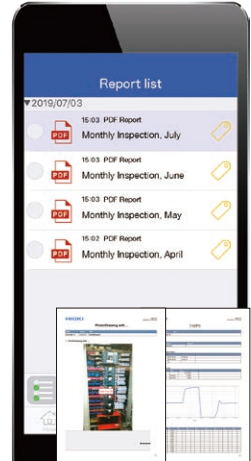
Waveforms such as current and voltage, and FFT analysis waveforms can be displayed.

Record on photos and drawings



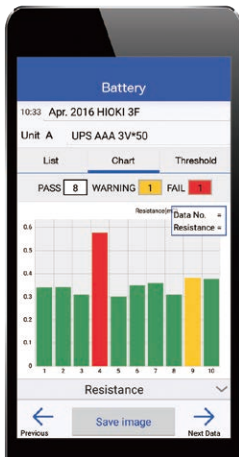
Measurements can be recorded on top of captured photos or imported drawing data.

Report writing



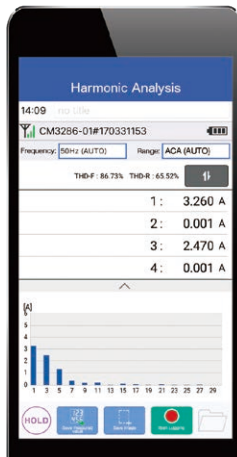
You can create reports from saved data, exporting them as PDF, JPG, or CSV.

Display judgment results in color and bar graph



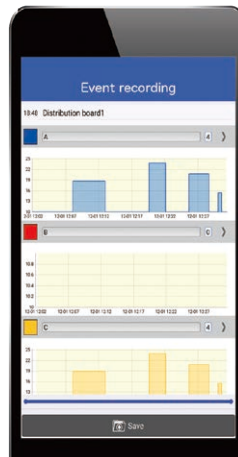
The measured value is compared with the judgment value, and the result is displayed in PASS/WARNING/FAIL.

Check power quality by analyzing harmonics up to the 30th order



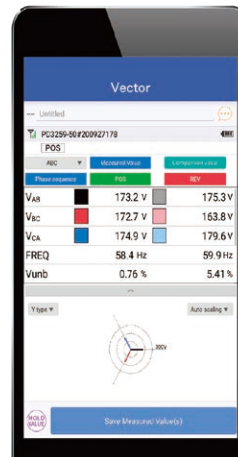
Calculate and display harmonic levels for individual orders, content percentages, and total harmonic distortion (THD-F and THDR).

Record the occurrence of intermittent leakage current



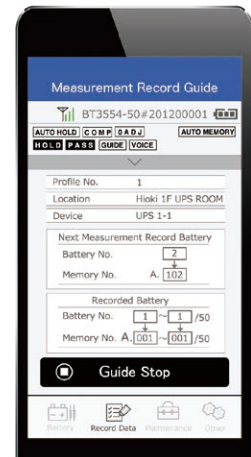
When a value greater than the threshold is measured, the time of occurrence, end time, and the maximum value for that period are recorded.

Display of disequilibrium rates and vector diagrams



Displays the disequilibrium rate and vector diagram.

Audio guidance about the battery measurement sequence



The app provides audio guidance about the battery measurement sequence. And, automatically saves the measurement results.

Supported instruments (available functions vary depending on the measurement device.)

Wireless adapter Z3210 (optional) must be attached to use Gennect Cross.

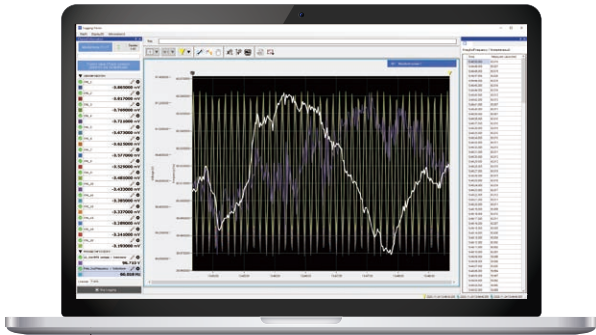
										
WIRELESS ADAPTER Z3210	RM3548-50	IR4059	IR4057-50	IR5050, IR5051	DT4261	FT6041	FT6031-50	FT6380-50	PD3259-50	FT3425
	BT3554-50	CM4371-50	CM4373-50	CM4375-50	CM4141-50	CM3286-50	CM4001	CM4002	CM4003	

Downloading Gennect Cross

Data can be downloaded to tablets and smartphones using Hioki's dedicated apps available from the Google Play™ or App Store. Search for "HIOKI" and download the "Gennect Cross" app.



for PCs Gennect One



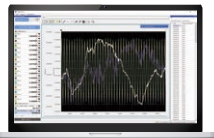
HUB Connect each measuring instrument with LAN cable (BT3554-50 series is USB connection)

<p>Power Analysis</p>	<p>Monitoring Power Quality</p>	<p>Understanding Power Consumption</p>
<p>Voltage and temperature management</p>	<p>Waveform Analysis</p>	<p>UPS Inspection</p>



Connect To and Manage Instruments With a Computer

Collect and display measured values by instrument



Collect values in graphs and lists

Logging: When logging is started, measurement data is acquired at regular intervals from multiple measuring instruments. The acquired data is displayed and stored on the PC in real time.



Combine images and other elements

Dashboard: Create a dashboard by laying out measurements, background images, and other parts on the screen. You can display the measured values on the dashboard in real time.

Change instrument settings from your office



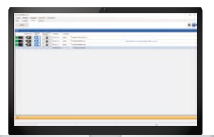
Change instrument settings from a computer

Remote control: Available to change the settings of the instrument and start and stop the measurement from the PC.

Instrument clock synchronization:

The clock of the measuring instrument can be synchronized with the PC clock.

Collect and organize measurement files from scattered locations

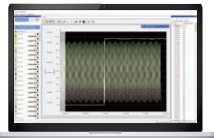


Transfer measurement files to a computer

Automatic file transfer: Measurement data stored in the instrument can be automatically transferred to the PC.

Data import:

The measurement data stored in the instrument can be transferred to the PC manually.



Review acquired files on a single time axis

Time-series viewer: After acquiring the measurement data stored in the main unit of the instrument, the data can be checked in a single time series.

Supported instruments (available functions vary depending on the measurement device.)

PW8001 PW6001 PW4001 PW3390	PW3335 PW3336 PW3337	PQ3198 PQ3100	PW3365 PW3360	LR8101 LR8102	LR8450 LR8450-01	BT3554-50
IM3523A	RM3545A	BT4560-50	BT6065 BT6075	BT5525	DM7275 DM7276	MR6000

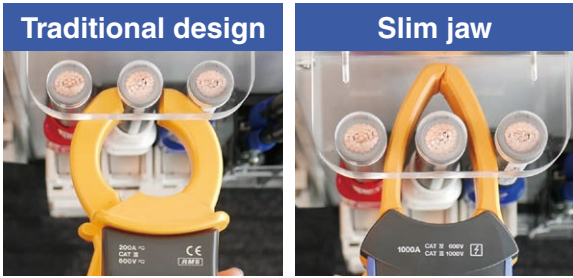
Downloading Gennect One

Gennect One is a free PC application. Please download from the Hioki website by going to the "Gennect One" landing page.



Clamp Meters

Remarkable Ease of Use, New "Slim Jaw" Design



Easily clamp within crowded cables with new slim jaw design

Innovative slim jaw resolves worksite issues such as crowded wiring to deliver safe, accurate and high-performance testing.



CM4375-50 CM4141-50 CM3289 CM3281 CM3291 CM4001

Manage Measurement Data Using Z3210^{*1}

Bluetooth
HIOKI Z3210

WIRELESS ADAPTER Z3210 (option)

Attach to enable Bluetooth® wireless technology



Transport to the Excel® file

Open an Excel® file and select a cell. The measured value being held on the instrument's display will be transferred to the computer and entered into the selected cell.

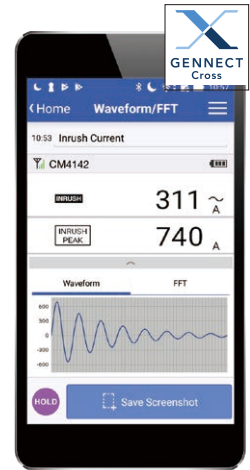


Learn more Z3210



Transport to Gennect Cross

Gennect Cross, a free app designed specifically for use with Hioki measuring instruments, lets you check and manage measurement results and create reports. The software provides a range of functionality that helps manage data in the field, including photographing measurement sites, placing measurement results on photographs, and saving hand written memos.



Verify current waveforms on your mobile device

*1: Supported models: CM4371-50, CM4373-50, CM4375-50, CM4141-50, CM4001, CM4002, CM4003, CM3286-50 (requires attaching WIRELESS ADAPTER Z3210)

Safe PV Measurement Using P2010^{*2}

Available to measure 2000 V DC DC HIGH VOLTAGE PROBE P2010

CAT IV 1000 V
CAT III 2000 V



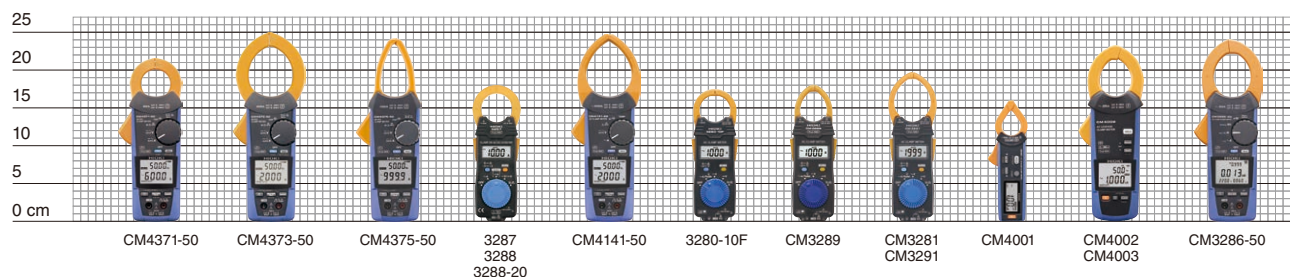
CM4371-50 CM4373-50 CM4375-50 CM4141-50

*2: Supported models: CM4371-50, CM4373-50, CM4375-50, CM4141-50 (requires using DC HIGH VOLTAGE PROBE P2010)









Lineup

Measurement type	AC/DC current					
Model	CM4371-50	CM4373-50	CM4375-50	3287	3288 3288-20	
Appearance						
Core jaw diameter	Φ33 mm (1.30 in.)	Φ55 mm (2.17 in.)	Φ34 mm (1.34 in.)	Φ35 mm (1.38 in.)	Φ35 mm (1.38 in.)	
AC measurement system	True RMS	True RMS	True RMS	True RMS	Mean value (3288) True RMS (3288-20)	
Frequency characteristics	10 Hz to 1 kHz	10 Hz to 1 kHz	10 Hz to 1 kHz	10 Hz to 1 kHz	10 Hz to 500 Hz	
Measurement parameters	AC current (resolution) Guaranteed accuracy range	600 A (0.01) 1 A to 600 A	2000 A (0.1) 1 A to 2000 A	1000 A (0.1) 1 A to 999.9 A	100 A (0.01) Full display range ⁵	1000 A (0.1) Full display range ⁵
	DC current (resolution)	600 A (0.01)	2000 A (0.1)	999.9 A (0.1)	100 A (0.01)	1000 A (0.1)
	AC Voltage	1000 V	1000 V	1000 V	600 V	600 V
	DC Voltage	1000 V, 2000 V ¹	1000 V, 2000 V ¹	1000 V, 2000 V ¹	600 V	600 V
	Power	1200 kVA (DC) ¹	4000 kVA (DC) ¹	2000 kVA (DC) ¹	N/A	N/A
	Resistance	6 MΩ	6 MΩ	6 MΩ	42 MΩ	42 MΩ
	Temperature	-40°C to 400°C	-40°C to 400°C	-40°C to 400°C	N/A	N/A
	Electrostatic capacity	✓	✓	✓	N/A	N/A
	Frequency	999.9 Hz	999.9 Hz	999.9 Hz	N/A	N/A
	Rush current	✓	✓	✓	N/A	N/A
	Continuity check	✓	✓	✓	✓	✓
	Diode check	✓	✓	✓	N/A	N/A
	Non-Contact Voltage	✓	✓	N/A	N/A	N/A
Low-pass filter	✓	✓	✓	N/A	N/A	
Auto power off	✓	✓	✓	✓	✓	
Auto range	✓	✓	✓	✓	✓	
Data hold	AUTO/MANUAL	AUTO/MANUAL	AUTO/MANUAL	MANUAL	MANUAL	
Automatic AC/DC detection	✓	✓	✓	N/A	N/A	
MAX/MIN/AVG	✓	✓	✓	N/A	N/A	
Output	N/A	N/A	N/A	N/A	N/A	
Bluetooth® communication	✓ (with Z3210)	✓ (with Z3210)	✓ (with Z3210)	N/A	N/A	
Backlight	✓	✓	✓	N/A	N/A	
Display refresh rate	5 times/s	5 times/s	5 times/s	2.5 times/s	2.5 times/s	
Safety standard category	CAT IV 600 V CAT III 1000 V	CAT IV 600 V CAT III 1000 V	CAT IV 600 V CAT III 1000 V	V: CAT III 300 V A: CAT III 600 V	V: CAT III 300 V A: CAT III 600 V	
Safety standard category (with P2010)	CAT IV 1000 V CAT III 2000 V	CAT IV 1000 V CAT III 2000 V	CAT IV 1000 V CAT III 2000 V	N/A	N/A	
CE	✓	✓	✓	✓	✓	
Dustproof and waterproof	IP20 ² /IP54 ³	IP20 ² /IP54 ³	IP20 ² /IP54 ³	N/A	N/A	
Drop proof	N/A	N/A	N/A	N/A	N/A	
Power supply	LR03 x 2 Alkaline	LR03 x 2 Alkaline	LR03 x 2 Alkaline	CR2032 x 1 Coin type	CR2032 x 1 Coin type	
Dimensions (W x H x D)	65 x 215 x 35 mm 2.56 x 8.46 x 1.38 in.	65 x 250 x 35 mm 2.56 x 9.84 x 1.38 in.	65 x 242 x 35 mm 2.56 x 9.53 x 1.38 in.	57 x 180 x 16 mm 2.24 x 7.09 x 0.63 in.	57 x 180 x 16 mm 2.24 x 7.09 x 0.63 in.	
Weight	340 g, 12.0 oz.	530 g, 18.7 oz.	350 g, 12.3 oz.	170 g, 6.0 oz.	150 g, 5.3 oz.	

Size comparison



*1: Only when DC HIGH VOLTAGE PROBE P2010 is used *2: Voltage measurement in a completely dry condition. When jaw closes. *3: While in storage
*4: When measuring the current in an insulated conductor. Do not use it when wet. *5: Displayed 0 with below 0.06

Measurement type	AC current					Leakage current		AC power	
Model	CM4141-50	3280-10F	CM3289	CM3281	CM3291	CM4001	CM4002 CM4003	CM3286-50	
Appearance									
Core jaw diameter	Φ55 mm (2.17 in.)	Φ33 mm (1.30 in.)	Φ33 mm (1.30 in.)	Φ46 mm (1.81 in.)	Φ46 mm (1.81 in.)	Φ24 mm (0.94 in.)	Φ40 mm (1.57 in.)	Φ46 mm (1.81 in.)	
AC measurement system	True RMS	Mean value	True RMS	Mean value	True RMS	True RMS	True RMS	True RMS	
Frequency characteristics	45 Hz to 1 kHz	50/60 Hz	40 Hz to 1 kHz	50/60 Hz	40 Hz to 1 kHz	40 Hz to 1 kHz	15 Hz to 2 kHz	45 Hz to 1 kHz	
Measurement parameters	AC current (resolution)	2000 A (0.01)	1000 A (0.01)	1000 A (0.01)	2000 A (0.01)	2000 A (0.01)	600 A (0.01mA)	200 A (0.001mA)	600 A (0.001)
	Guaranteed accuracy range	1 A to 2000 A	4 A to 1000 A	4 A to 1000 A	4 A to 1999 A	4 A to 1999 A	0.6 mA to 600 A	0.06 mA to 200 A	0.06 A to 600 A
	DC current (resolution)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	AC Voltage	1000 V	600 V	600 V	600 V	600 V	N/A	N/A	600 V
	DC Voltage	1000 V, 2000 V ^{*1}	600 V	600 V	600 V	600 V	N/A	N/A	N/A
	Power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	360 kW (AC)
	Resistance	6 MΩ	42 MΩ	42 MΩ	42 MΩ	42 MΩ	N/A	N/A	N/A
	Temperature	-40°C to 400°C	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Electrostatic capacity	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Frequency	999.9 Hz	N/A	N/A	N/A	N/A	999.9 Hz	2000 Hz	999.9 Hz
	Rush current	✓	N/A	N/A	N/A	N/A	✓	✓	N/A
Continuity check	✓	✓	✓	✓	✓	N/A	N/A	N/A	
Diode check	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Non-Contact Voltage	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Low-pass filter	✓	N/A	N/A	N/A	N/A	✓	✓	N/A	
Auto power off	✓	✓	✓	✓	✓	✓	✓	✓	
Auto range	✓	✓	✓	✓	✓	✓	✓	✓	
Data hold	AUTO/MANUAL	MANUAL	MANUAL	MANUAL	MANUAL	AUTO/MANUAL	AUTO/MANUAL	AUTO/MANUAL	
Automatic AC/DC detection	✓ (voltage only)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
MAX/MIN/AVG	✓	N/A	N/A	N/A	N/A	✓	✓	✓	
Output	N/A	N/A	N/A	N/A	N/A	N/A	✓ (CM4003 only)	N/A	
Bluetooth® communication	✓ (with Z3210)	N/A	N/A	N/A	N/A	✓ (with Z3210)	✓ (with Z3210)	✓ (with Z3210)	
Backlight	✓	N/A	N/A	N/A	N/A	✓	✓	✓	
Display refresh rate	5 times/s	2.5 times/s	2.5 times/s	2.5 times/s	2.5 times/s	5 times/s	5 times/s	2 times/s	
Safety standard category	CAT IV 600 V CAT III 1000 V	V: CAT III 300 V A: CAT IV 300 V	V: CAT III 300 V A: CAT IV 300 V	V: CAT III 300 V A: CAT IV 300 V	V: CAT III 300 V A: CAT IV 300 V	CAT III 300 V	CAT IV 300 V (CM4002) CAT III 600 V (CM4002) CAT III 300 V (CM4003)	CAT IV 600 V CAT III 1000 V	
Safety standard category (with P2010)	CAT IV 1000 V CAT III 2000 V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
CE	✓	✓	✓	✓	✓	✓	✓	✓	
Dustproof and waterproof	IP50 ^{*2,3,4}	IP40 ^{*3}	N/A	N/A	N/A	N/A	IP40	IP20 ^{*2} /IP50 ^{*3}	
Drop proof	N/A	✓	✓	✓	✓	N/A	N/A	N/A	
Power supply	LR03 × 2 Alkaline	CR2032 × 1 Coin type	CR2032 × 1 Coin type	CR2032 × 1 Coin type	CR2032 × 1 Coin type	LR03 × 1 Alkaline	LR6 × 2 Alkaline	LR03 × 2 Alkaline	
Dimensions (W × H × D)	65 × 247 × 35 mm 2.56 × 9.72 × 1.38 in.	57 × 175 × 16 mm 2.24 × 6.89 × 0.63 in.	57 × 181 × 16 mm 2.24 × 7.13 × 0.63 in.	57 × 198 × 16 mm 2.24 × 7.80 × 0.63 in.	57 × 198 × 16 mm 2.24 × 7.80 × 0.63 in.	37 × 160 × 27 mm 1.46 × 6.30 × 1.06 in.	64 × 233 × 36 mm 2.52 × 9.17 × 1.41 in.	65 × 241 × 35 mm 2.56 × 9.49 × 1.38 in.	
Weight	300 g, 10.6 oz.	100 g, 3.5 oz.	100 g, 3.5 oz.	103 g, 3.6 oz.	103 g, 3.6 oz.	115 g, 4.1 oz.	400 g, 14.1 oz.	450 g, 15.9 oz.	

Test leads with an integrated cap for greater convenience and safety



CAT IV 600V, CAT III 1000V

CAT II 1000V

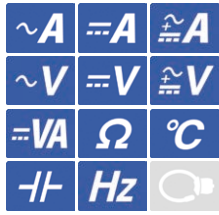


The L9300 test lead with an integrated cap is included as a standard. The finger guard can be easily slid to switch between measurement categories without worrying about losing the cap.

AC/DC Current

AC/DC CLAMP METER CM4371-50, CM4373-50, CM4375-50

Product warranty for 3 years
Accuracy guaranteed for 1 year



Included accessories



L9300 C0203

- LR03 Alkaline battery x 2
- Instruction manual



WIRELESS ADAPTER
Z3210 (option)
Attach to enable Bluetooth® wireless technology

Φ33 mm = 1.30 in.



CM4371-50

600 A AC/DC

True RMS

CAT IV 600 V
CAT III 1000 V

With P2010

CAT IV 1000 V DC
CAT III 2000 V DC

With Z3210



Please see www.hioki.com for list of supported regions.



Φ55 mm = 2.17 in.



CM4373-50

2000 A AC/DC

True RMS

CAT IV 600 V
CAT III 1000 V

With P2010

CAT IV 1000 V DC
CAT III 2000 V DC

With Z3210



Please see www.hioki.com for list of supported regions.



Φ34 mm = 1.34 in.



CM4375-50

1000 A AC/DC

True RMS

CAT IV 600 V
CAT III 1000 V

With P2010

CAT IV 1000 V DC
CAT III 2000 V DC

With Z3210



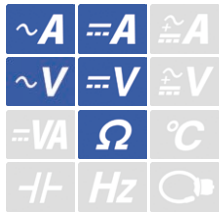
Please see www.hioki.com for list of supported regions.



DC HIGH VOLTAGE PROBE
P2010 (option)
Available to measure 2000 V DC

CLAMP ON AC/DC HiTESTER 3287, 3288, 3288-20

Product warranty for 3 years
Accuracy guaranteed for 1 year



Included accessories



L9208 9398

- Coin type lithium battery CR2032 x 1
- Instruction manual

Φ35 mm = 1.38 in.



3287

100 A AC/DC

True RMS

V: CAT III 300 V
A: CAT III 600 V

Φ35 mm = 1.38 in.



3288

1000 A AC/DC

Mean value

V: CAT III 300 V
A: CAT III 600 V

Φ35 mm = 1.38 in.



3288-20

1000 A AC/DC

True RMS

V: CAT III 300 V
A: CAT III 600 V



For more details



Model	CM4371-50	CM4373-50	CM4375-50		Basic accuracy
AC Current	✓	N/A	N/A	20.00 A, 600.0 A (guaranteed accuracy range: 1.00 A to 600.0 A)	±1.3% rdg. ±0.08 A
	N/A	✓	N/A	600.0 A, 2000 A (guaranteed accuracy range: 1.0 A to 2000 A)	±1.3% rdg. ±0.3 A
	N/A	N/A	✓	1000 A (guaranteed accuracy range: 1.0 A to 999.9 A)	±1.3% rdg. ±0.3 A
DC Current	✓	N/A	N/A	20.00 A, 600.0 A (guaranteed accuracy range: ±1.00A to ±600.0 A)	±1.3% rdg. ±0.08 A
	N/A	✓	N/A	600.0 A, 2000 A (guaranteed accuracy range: ±1.0A to ±2000 A)	±1.3% rdg. ±0.3 A
	N/A	N/A	✓	1000 A (guaranteed accuracy range: ±1.0 A to ±999.9 A)	±1.3% rdg. ±0.3 A
AC + DC Current	✓	N/A	N/A	20.00 A, 600.0 A (guaranteed accuracy range: 1.00 A to 600.0 A)	±1.3% rdg. ±0.13 A
	N/A	✓	N/A	600.0 A, 2000 A (guaranteed accuracy range: 1.0 A to 2000 A)	±1.3% rdg. ±1.3 A
	N/A	N/A	✓	1000 A (guaranteed accuracy range: 1.0 A to 999.9 A)	±1.3% rdg. ±1.3 A
AC Voltage	✓	✓	✓	6.000 V, 60.00 V, 600.0 V, 1000 V	±0.9% rdg. ±0.003 V
DC Voltage	✓	✓	✓	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V, 2000 V ²	±0.5% rdg. ±0.5 mV
AC + DC Voltage	✓	✓	✓	6.000 V, 60.00 V, 600.0 V, 1000 V	±1.0% rdg. ±0.013 V
DC Power	✓	N/A	N/A	0.0 VA to ±1200 kVA ²	±2.0% rdg. ±20 dgt.
	N/A	✓	N/A	0.000 kVA to ±4000 kVA ²	±2.0% rdg. ±20 dgt.
	N/A	N/A	✓	0.000 kVA to ±2000 kVA ²	±2.0% rdg. ±0.020 kVA
Resistance	✓	✓	✓	600.0 Ω, 6.000 kΩ, 60.00 kΩ, 600.0 kΩ, 6.000 MΩ	±0.7% rdg. ±0.5 Ω
Temperature	✓	✓	✓	-40.0°C to 400.0°C	±0.5% rdg. ±3.0°C
Electrostatic capacity	✓	✓	✓	1.000 μF, 10.00 μF, 100.0 μF, 1000 μF	±1.9% rdg. ±0.005 μF
Frequency	✓	✓	✓	9.999 Hz, 99.99 Hz, 999.9 Hz	±0.1% rdg. ±0.003 Hz

Display refresh rate	5 times/s ³
Operating temperature	-25°C to 65°C, 90% RH or less (non-condensating)
Storage temperature	-30°C to 70°C, 90% RH or less (non-condensating)
Dustproof and waterproof	IP20 ⁴ /IP54 ⁵
Power supply	Alkaline battery LR03 × 2
Continuous operating time	40 hours ⁶
Dimensions (W × H × D)	CM4371-50: 65 × 215 × 35 mm (2.56 × 8.46 × 1.38 in.) CM4373-50: 65 × 250 × 35 mm (2.56 × 9.84 × 1.38 in.) CM4375-50: 65 × 242 × 35 mm (2.56 × 9.53 × 1.38 in.)
Weight	CM4371-50: 340 g (12 oz.) CM4373-50: 530 g (18.7 oz.) CM4375-50: 350 g (12.3 oz.)

Order code **CM4371-50**

Includes Z3210

Order code **CM4373-50**

Order code **CM4371-90**

Order code **CM4375-50**

Order code **CM4373-90**

Order code **Z3210**

Order code **CM4375-90**

Order code **P2010**

Includes Z3210 and P2010

Order code **CM4373-93**

Order code **CM4375-93**

- *1: Excludes CM4375-50
- *2: Only when DC HIGH VOLTAGE PROBE P2010 is used
- *3: Excludes electrostatic capacity, frequency, and temperature
- *4: Voltage measurement in a completely dry condition. When jaw closes.
- *5: While in storage
- *6: With backlight and Bluetooth® communications turned off



Model	3287	3288	3288-20		Basic accuracy
AC Current	✓	N/A	N/A	10.00 A, 100.0 A (display range: 0A to 10.00/100.0 A)	±1.5% rdg. ±5 dgt.
	N/A	✓	✓	100.0 A, 1000 A (display range: 0A to 100.0/1000 A)	±1.5% rdg. ±5 dgt.
DC Current	✓	N/A	N/A	10.00 A, 100.0 A	±1.5% rdg. ±5 dgt.
	N/A	✓	✓	100.0 A, 1000 A	±1.5% rdg. ±5 dgt.
AC Voltage	✓	✓	✓	4.200 V, 42.00 V, 420.0 V, 600 V	±2.3% rdg. ±8 dgt.
DC Voltage	✓	✓	✓	420.0 mV, 4.200 V, 42.00 V, 420.0 V, 600 V	±1.3% rdg. ±4 dgt.
Resistance	✓	✓	✓	420.0 Ω, 4.200 kΩ, 42.00 kΩ, 420.0 kΩ, 4.200 MΩ, 42.00 MΩ	±2.0% rdg. ±4 dgt.

Display refresh rate	2.5 times/s
Operating temperature	0°C to 40°C, 80% RH or less (non-condensating)
Storage temperature	-10°C to 50°C, 80% RH or less (non-condensating)
Dustproof and waterproof	N/A
Power supply	Coin type lithium battery CR2032 × 1
Continuous operating time	25 hours
Dimensions (W × H × D)	57 × 180 × 16 mm (2.24 × 7.09 × 0.63 in.)
Weight	3287: 170 g (6.0 oz.), 3288, 3288-20: 150 g (5.3 oz.)

Order code **3287**

Order code **3288**

Order code **3288-20**

*1: Without 3288

Clamp
Insulation
Tester
Detectors
Earth
Power quality
Power loggers
Battery
Logger
LAN
Lux
Temperature
Resistance

AC Current

AC CLAMP METER CM4141-50

Product warranty for 3 years
Accuracy guaranteed for 1 year



WIRELESS ADAPTER
Z3210 (option)
**Attach to enable Bluetooth®
wireless technology**



DC HIGH VOLTAGE PROBE
P2010 (option)
Available to measure 2000 V DC

Included accessories



L9300 C0203

- LR03 Alkaline battery × 2
- Instruction manual

Φ55 mm = 2.17 in.



CM4141-50

2000 A AC

True RMS

CAT IV 600 V
CAT III 1000 V

With P2010

CAT IV 1000 V DC
CAT III 2000 V DC

With Z3210

Bluetooth®

Please see www.hioki.com
for list of supported regions.



AC CLAMP METER 3280-10F, CM3289, CM3281, CM3291

Product warranty for 3 years
Accuracy guaranteed for 1 year



Included accessories



L9208

- CARRYING CASE (models vary as shown on right)
- Coin type lithium battery CR2032 × 1
- Instruction manual



Φ33 mm = 1.30 in.

**3280-10F
3280-70F**

1000 A AC

Mean value

V: CAT III 300 V
A: CAT IV 300 V



9398 C0205
(3280-10F) (3280-70F)



Φ33 mm = 1.30 in.

CM3289

1000 A AC

True RMS

V: CAT III 300 V
A: CAT IV 300 V



9398



Φ46 mm = 1.81 in.

**CM3281
CM3291**

2000 A AC

CM3281: Mean value
CM3291: True RMS

V: CAT III 300 V
A: CAT IV 300 V



CARRYING CASE

Leakage Current

AC LEAKAGE CLAMP METER CM4001, CM4002, CM4003

Product warranty for 3 years
Accuracy guaranteed for 1 year



WIRELESS ADAPTER
Z3210 (option)
**Attach to enable Bluetooth®
wireless technology**



Φ24 mm = 0.94 in.

CM4001

0.6 mA to 600 A AC

True RMS

CAT III 300 V

Included accessories



CARRYING CASE

- Strap
- LR03 Alkaline battery × 1
- Instruction manual

With Z3210

Bluetooth®

Please see www.hioki.com
for list of supported regions.



Φ40 mm = 1.57 in.

CM4002

0.06 mA to 200 A AC

True RMS

CAT IV 300 V
CAT III 600 V

Included accessories



C0203

- LR6 Alkaline battery × 2
- Instruction manual

With Z3210

Bluetooth®

Please see www.hioki.com
for list of supported regions.



Φ40 mm = 1.57 in.

CM4003

0.06 mA to 200 A AC

True RMS

CAT III 300 V

Included accessories



C0203 L9097

- LR6 Alkaline battery × 2
- Instruction manual
- USB cable

With Z3210

Bluetooth®

Please see www.hioki.com
for list of supported regions.



Functions
• External output
• External power supply



For more details



Model	CM4141-50	Basic accuracy
AC Current	✓	60.00A, 600.0 A, 2000 A (guaranteed accuracy range: 1.00A to 2000 A) ±1.5% rdg. ±0.08 A
AC Voltage	✓	6.000 V, 60.00 V, 600.0 V, 1000 V ±0.9% rdg. ±0.003 V
DC Voltage	✓	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V, 2000 V ^{*1} ±0.5% rdg. ±0.5 mV
AC + DC Voltage	✓	6.000 V, 60.00 V, 600.0 V, 1000 V ±1.0% rdg. ±0.013 V
Resistance	✓	600.0 Ω, 6.000 kΩ, 60.00 kΩ, 600.0 kΩ, 6.000 MΩ ±0.7% rdg. ±0.5 Ω
Temperature	✓	-40.0°C to 400.0°C ±0.5% rdg. ±3.0°C
Electrostatic capacity	✓	1.000 μF, 10.00 μF, 100.0 μF, 1000 μF ±1.9% rdg. ±0.005 μF
Frequency	✓	9.999 Hz, 99.99 Hz, 999.9 Hz ±0.1% rdg. ±0.003 Hz

Display refresh rate	5 times/s ²
Operating temperature	-25°C to 65°C, 90% RH or less (non-condensating)
Storage temperature	-30°C to 70°C, 90% RH or less (non-condensating)
Dustproof and waterproof	IP50 ^{*3,4}
Power supply	Alkaline battery LR03 × 2
Continuous operating time	48 hours ^{*5}
Dimensions (W × H × D)	65 × 247 × 35 mm (2.56 × 9.72 × 1.38 in.)
Weight	300 g (10.6 oz.)

Order code **CM4141-50**
 Order code **CM4141-90**
 Order code **Z3210**

Model CM4141-90 includes Z3210 as a set

*1: Only when DC HIGH VOLTAGE PROBE P210 is used *2: Excludes electrostatic capacity, frequency, and temperature
 *3: Voltage measurement in a completely dry condition. When jaw closes. *4: While in storage. *5 With backlight and Bluetooth® communications turned off



Model	3280-10F	CM3289	CM3281, CM3291	Basic accuracy
AC Current	✓	✓	N/A	42.00 A, 420.0 A, 1000 A (guaranteed accuracy range: 4.00A to 1000 A) ±1.5% rdg. ±5 dgt.
AC Voltage	N/A	N/A	✓	42.00 A, 420.0 A, 2000 A (guaranteed accuracy range: 4.00A to 1999 A) ±1.5% rdg. ±5 dgt.
DC Voltage	✓	✓	✓	4.200 V, 42.00 V, 420.0 V, 600 V ±1.8% rdg. ±7 dgt.
Resistance	✓	✓	✓	420.0 mV, 4.200 V, 42.00 V, 420.0 V, 600 V ±1.0% rdg. ±3 dgt.
				420.0 Ω, 4.200 kΩ, 42.00 kΩ, 420.0 kΩ, 4.200 MΩ, 42.00 MΩ ±2.0% rdg. ±4 dgt.

Display refresh rate	2.5 times/s
Operating temperature	-25°C to 65°C, 80% RH or less (non-condensating)
Storage temperature	-25°C to 65°C, 80% RH or less (non-condensating)
Dustproof and waterproof	IP40 (EN60529) ^{*3}
Power supply	Coin type lithium battery CR2032 × 1
Continuous operating time	3280-10F, CM3281: 120 hours CM3289: 70 hours CM3291: 70 hours
Dimensions (W × H × D)	3280-10F: 57 × 175 × 16 mm (2.24 × 6.89 × 0.63 in.) CM3289: 57 × 181 × 16mm (2.24 × 7.13 × 0.63 in.) CM3281, CM3291: 57 × 198 × 16 mm (2.24 × 7.80 × 0.63 in.)
Weight	3280-10F: 100 g (3.5 oz.) CM3289: 100 g (3.5 oz.) CM3281, CM3291: 103 g (3.6 oz.)



3280F, CM3289, CM3291 are compatible with the CT6280 AC Flexible Current Sensor
 Φ130mm (5.1 in.), 4200 A AC

Model 3280-70F includes 3280-10F AC Clamp Meter and CT6280 AC Flexible Sensor as a set

Order code **3280-10F**
 Order code **3280-70F**
 Order code **CM3289**
 Order code **CM3291**
 Order code **CM3281**

*1: Excludes 3280-10F, 3280-70F
 *2: Excludes CM3289, CM3281, CM3291
 *3: While in storage

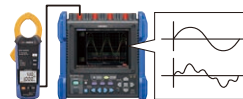


Model	CM4001	CM4002	CM4003	Basic accuracy
AC Current	✓	N/A	N/A	60.00 mA, 600.0 mA, 6.000A, 60.00A, 600.0A (guaranteed accuracy range: 0.60 mA to 600.0A) ±1.5% rdg. ±0.05 mA
DC Voltage	N/A	✓	✓	6.000 mA, 60.00 mA, 600.0 mA, 6.000A, 60.00A, 200.0A (guaranteed accuracy range: 0.060 mA to 200.0A) ±1.0% rdg. ±0.005 mA
Frequency	✓	N/A	N/A	999.9 Hz ±1.5% rdg. ±0.1 Hz
	N/A	✓	✓	999.9 Hz, 2000 Hz ±0.1% rdg. ±0.1 Hz

Display refresh rate	5 times/s
Operating temperature	-10°C to 65°C (non-condensating)
Storage temperature	CM4001: -10°C to 65°C (non-condensating) CM4002, CM4003: -30°C to 70°C (non-condensating)
Dustproof and waterproof	CM4002, CM4003: IP40 (EN60529)
Power supply	CM4001: LR03 Alkaline battery × 1, 32 hours CM4002, CM4003: LR6 Alkaline battery × 2, 48 hours (LR6, without Z3210)
Continuous operating time	CM4003: AC ADAPTER T1013 (option)
Dimensions (W × H × D)	CM4001: 37 × 160 × 27 mm (1.46 × 6.30 × 1.06 in.) CM4002, CM4003: 64 × 233 × 36 mm (2.52 × 9.17 × 1.41 in.)
Weight	CM4001: 115 g (4.1 oz.) CM4002, CM4003: 400 g (14.1 oz.)

Includes external output function (CM4003 Only)

Pair with a recorder to capture instantaneous or current waveforms



RMS value output (RMS mode)
 DC 600 mV/f.s.
Waveform output (WAVE mode)
 AC 600 mV/f.s.

*Using CONNECTION CABLE L9097 (included accessories)

Order code **CM4001**
 Order code **CM4001-90**
 Order code **CM4002**
 Order code **CM4002-90**
 Order code **CM4003**
 Order code **CM4003-90**
 Order code **Z3210**

Model CM4001-90, CM4002-90, CM4003-90 includes Z3210 as a set

AC/DC Power



For more details

AC CLAMP POWER METER CM3286-50

 Product warranty for 3 years
 Accuracy guaranteed for 1 year

 $\Phi 46 \text{ mm} = 1.81 \text{ in.}$


Included accessories


L9257 **C0203**

- LR03 Alkaline battery x 2
- Instruction manual

*1: Harmonics can be displayed using dedicated application software (Gennect Cross)
 *2: Voltage measurement in a completely dry condition. When jaw closes.
 *3: While in storage.

CM3286-50

AC 600 A

True RMS

 CAT IV 600 V
 CAT III 1000 V

With Z3210

 Please see www.hioki.com
 for list of supported regions.

 WIRELESS ADAPTER
 Z3210 (option)

**Attach to enable Bluetooth®
 wireless technology**

 Order code **CM3286-50**

 Order code **CM3286-90**

 Order code **Z3210**

 Model CM3286-90
 includes Z3210 as a set

Measurement parameters	Power (Active/reactive/apparent)	Single phase 3.600 kW, 36.00 kW, 360.0 kW Guaranteed accuracy range: 0.005 kW to 360.0 kW Basic accuracy: $\pm 2.0\%$ rdg. ± 7 dgt.
		Balanced three-phase 3-wire 7.200 kW, 72.00 kW, 720.0 kW guaranteed accuracy range: 0.020 kW to 623.5 kW Basic accuracy: $\pm 3.0\%$ rdg. ± 10 dgt.
	Balanced three-phase 4-wire 10.80 kW, 108.0 kW, 1080 kW guaranteed accuracy range: 0.040 kW to 1080 kW Basic accuracy: $\pm 2.0\%$ rdg. ± 3 dgt.	
AC Current	6.000 A, 60.00 A, 600.0 A Basic accuracy: $\pm 1.0\%$ rdg. ± 3 dgt.	
AC Voltage	600.0 V Basic accuracy: $\pm 0.7\%$ rdg. ± 3 dgt.	
Power factor	Single-phase, Balanced three-phase 4-wire: [Regeneration] -1.000 to -0.001, [Consumption] 0.000 to 1.000 Balanced three-phase 3-wire: [Regeneration] -0.001, [Consumption] 0.000 to 1.000	
Phase angle	Single-phase, Balanced three-phase 4-wire: [lead] -180.0° to -0.1°, [lag] 0.0° to 179.9° Balanced three-phase 3-wire: [lead] -90.0° to -0.1°, [lag] 0.0° to 90.0°	
Frequency	45.0 Hz to 999.9 Hz	
Simple Active Energy Consumption (single-phase)	99.99 Wh, 999.9 Wh, 9.999 kWh, 99.99 kWh, 999.9 kWh, 9999 kWh	
Harmonic ^{*1} (with Z3210)	Voltage or current harmonic levels up to 30th order, content factor, total harmonic distortion ratio	
Display refresh rate	2 times/s	
Operating temperature	-25°C to 65°C, 80% RH or less (non-condensating)	
Storage temperature	-25°C to 65°C, 80% RH or less (non-condensating)	
Dustproof and waterproof	IP20 ^{*2} / IP50 ^{*3}	
Power supply	LR03 Alkaline battery x 2	
Continuous operating time	25 hours	
Dimensions (W x H x D)	65 x 241 x 35 mm (2.56 x 9.49 x 1.38 inch)	
Weight	450 g (15.9 oz.)	
Other		

Clamp

Insulation

Tester

Detectors

Earth

Power quality

Power loggers

Battery

Logger

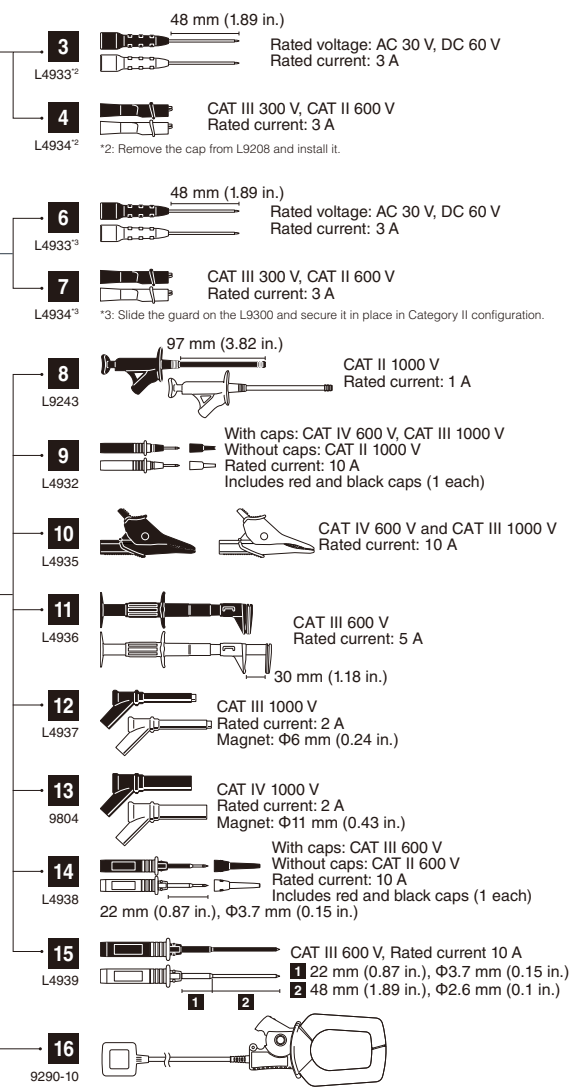
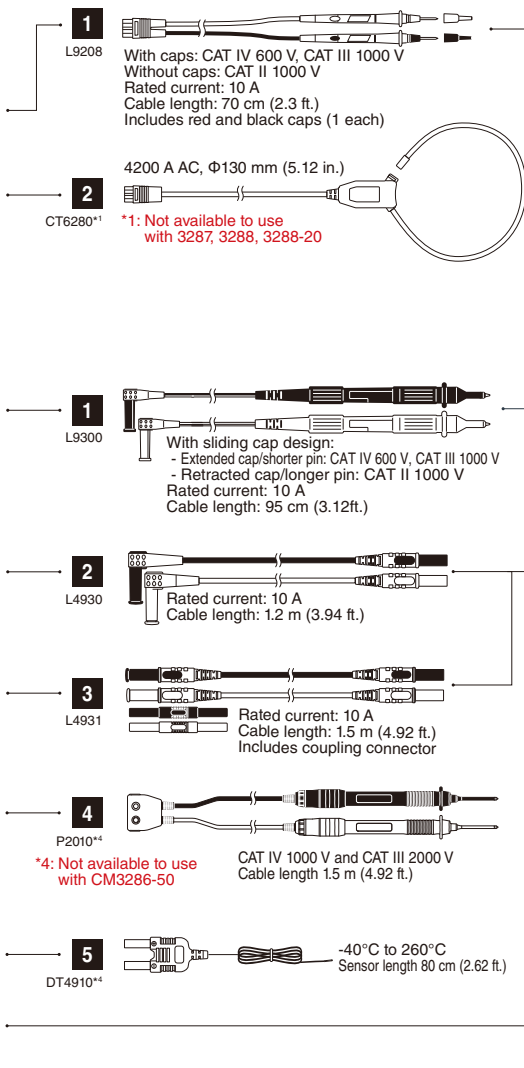
LAN

Lux

Temperature

Resistance

Options



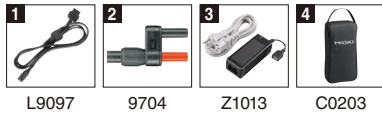
3280-10F, CM3289, CM3291, 3287, 3288, 3288-20		
1	TEST LEAD L9208	With caps: CAT IV 600 V, CAT III 1000 V Without caps: CAT II 1000 V Rated current: 10 A
2	AC FLEXIBLE CURRENT SENSOR CT6280	For 3280-10F, CM3289, CM3281, CM3291 AC 4200 A, Φ 130 mm (5.12 in.)
3	CONTACT PIN SET L4933	AC 30 V, DC 60 V, 3 A
4	SMALL ALLIGATOR CLIP SET L4934	CAT III 300 V, CAT II 600 V, 3 A
5	CARRYING CASE 9398	For 3280-10F, CM3289, 3287, 3288, 3288-20
6	CARRYING CASE C0205	Bundled accessory for CT6280
7	TEST LEADS HOLDER 9209	For 3280-10F, CM3289, 3287, 3288, 3288-20



CM4371-50, CM4373-50, CM4375-50, CM4141-50, CM3286-50		
1	TEST LEAD L9300	CAT IV 600 V, CAT III 1000 V CAT II 1000 V Rated current: 10 A
2	CONNECTION CABLE SET L4930	10 A
3	EXTENSION CABLE SET L4931	10 A
4	DC HIGH VOLTAGE PROBE P2010	Excluding CM3286-20 CAT IV 1000 V, CAT III 2000 V
5	THERMOCOUPLES (K) DT4910	Excluding CM3286-20
6	CONTACT PIN SET L4933	AC 30 V, DC 60 V, 3 A
7	SMALL ALLIGATOR CLIP SET L4934	CAT III 300 V, CAT II 600 V, 3 A
8	GRABBER CLIP L9243	CAT II 1000 V, 1 A
9	TEST PIN SET L4932	With caps: CAT IV 600 V, CAT III 1000 V Without caps: CAT II 1000 V 10 A
10	ALLIGATOR CLIP SET L4935	CAT IV 600 V, CAT III 1000 V, 10 A
11	BUS BAR CLIP SET L4936	CAT III 600 V, 5 A
12	MAGNETIC ADAPTER SET L4937	CAT III 1000 V, 2 A
13	MAGNETIC ADAPTER SET 9804	CAT IV 1000 V, 2 A
14	TEST PIN SET L4938	With caps: CAT III 600 V Without caps: CAT II 600 V 10 A
15	BREAKER PIN SET L4939	CAT III 600 V, 10 A
16	CLAMP ON ADAPTER 9290-10	For CM3286-50 AC 1000 A, Φ 55 mm, CT ratio 10 : 1
17	CONNECTION CORD L9257	Combination of L4930 and L4935
18	CARRYING CASE C0203	



CM4002, CM4003		
1	CONNECTION CABLE L9097	For CM4003
2	CONVERSION ADAPTER 9704	For CM4003
3	AC ADAPTER Z1013	For CM4003
4	CARRYING CASE C0203	



- Clamp
- Insulation
- Tester
- Detectors
- Earth
- Power quality
- Power loggers
- Battery
- Logger
- LAN
- Lux
- Temperature
- Resistance

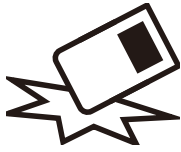


Insulation Testers

Notice Discontinuation of Analog MΩ Testers

As analog MΩ testers are scheduled to be discontinued as of June 2026, we recommend replacing them with digital insulation testers. Please consider the IR4051 (standard type) or IR4052 (high-speed type) as replacement models.

Drop proof



Built tough to withstand a 1-meter drop onto a concrete floor



5 ranges

Rated output voltage (DC)
Effective maximum indicated value

- 50 V , 100 MΩ**
- 125 V , 250 MΩ**
- 250 V , 500 MΩ**
- 500 V , 2000 MΩ**
- 1000 V , 4000 MΩ**

Manage Measurement Data Using Bluetooth® Communication



WIRELESS ADAPTER Z3210 (option)
Attach to enable Bluetooth® wireless technology



[Learn More](#)

Transport to the Excel® file



Location	Circuit no.	Ref. value	Measurement place	Value(MΩ)
	R-E	101	M Ohm	
	S-E	101	M Ohm	
	T-E	101	M Ohm	
	R-S	88.4	M Ohm	
	S-T	99.9	M Ohm	
	T-R	99.9	M Ohm	

Open an Excel® file and select a cell. The measured value being held on the instrument's display will be transferred to the computer and entered into the selected cell.

Transport to Gennect Cross



[Learn More](#)



- PDF Reports
- CSV Measurement data
- JPG Image data

Recording measured values on the photograph

Record it at tap point

Display the measurement number for prevent wrong record

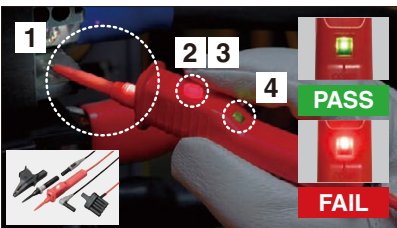
Home Photo/Drawing with ...

Add comments

> 20.0 Mb

Gennect Cross, a free app designed specifically for use with Hioki measuring instruments, lets you check and manage measurement results and create reports. The software provides a range of functionality that helps manage data in the field, including photographing measurement sites, placing measurement results on photographs, and saving handwritten memos.

Significantly Improve Testing Speed using Test Lead with Remote Switch



- 1 LED light shines a spotlight on the target
- 2 Red light warns of live voltage detection
- 3 Measurement start switch
- 4 Identify pass/fail decisions with red or green light

TEST LEAD SET WITH REMOTE SWITCH L9788-11 (option)
*Standard with the IR4059 and IR4056-21

Identify PASS/FAIL using Light and Sound



Compare measured values to pre-set reference values to generate a pass or fail decision with the Comparator function.

Convenient for Inspections

- Low resistance measurement*1**
Perform EV and HEV continuity checks as well as resistance measurement of protective conductors in facility electrical equipment as defined by IEC 60364.
- AC/DC voltage measurement**
Automatically detect AC or DC for testing. Use as a tester thanks to DC voltage measurement functionality.
- PV Ω dedicated function*2**
Measurement is not affected even when the PV system is online.

*1: Excludes IR4053 *2: IR4053 Only

One-touch Start and Stop



Measurement voltage is applied while MEASURE key is pressed



Lift and lock the MEASURE key to apply a continuous stream of voltage

Prevent Accidental High Voltage Generation



Under [500V], [1000V], or [PVΩ] settings, the RELEASE button will blink. Press to unlock the release of high voltages as an extra safety measure.



Lineup - Digital

Product warranty for 3 years
Accuracy guaranteed for 1 year



Measurement type	Low voltage (less than 1000 V)				High voltage (less than 5000 V)	
	Standard	High-speed	EV	PV		Standard
Model	IR4056-20 IR4056-21	IR4057-50	IR4059	IR4053-10	IR5051	IR5050
Appearance						
Number of ranges	5				5	
Applied voltage (DC) and effective maximum indicated value	50 V, 100 MΩ 125 V, 250 MΩ 250 V, 500 MΩ 500 V, 2000 MΩ 1000 V, 4000 MΩ				250 V, 500 GΩ 500 V, 1.00 TΩ 1000 V, 2.00 TΩ 2500 V, 5.00 TΩ 5000 V, 10.00 TΩ	
PV Ω measurement	N/A			500 V, 2000 MΩ 1000 V, 4000 MΩ	500 V, 100 GΩ 1000 V, 100 GΩ 1500 V, 100 GΩ	N/A
Leakage current measurement	N/A				0.00 nA to 2.00 mA	
DC voltage measurement	600 V			1000 V	2000 V	
AC voltage measurement	600 V				1000 V	
Low resistance measurement	✓			N/A	N/A	
Displaying 1-min. values	N/A	✓		N/A	N/A	
Comparator decision response time	✓ 0.8 second	✓ 0.3 second		✓ 0.8 second (PV: 4 second)	N/A	
AUTO power save	✓				✓	
Bluetooth® communication	N/A	✓ (with Z3210)		N/A	✓ (with Z3210)	
Resistance gauge	N/A	✓		N/A	✓	
Backlight	✓				✓	
Safety standard category	CAT III 600 V				CAT IV 1000 V CAT III 2000 V	
CE	✓ ¹				✓	
Dustproof and waterproof	IP40 ²				IP40 ^{2,3} , IP65 ⁴	
Drop proof	✓				N/A	
Power supply	LR03 (AAA) alkaline battery × 4 HR6 (AA) NiMH rechargeable battery × 4				LR6 (AA) alkaline battery × 8 HR6 (AA) NiMH rechargeable battery × 8	
Dimensions (W × H × D)	159 × 177 × 53 mm 6.26 × 6.97 × 2.09 in.		160 × 98 × 46 mm 6.30 × 3.86 × 1.81 in.	159 × 177 × 53 mm 6.26 × 6.97 × 2.09 in.		195 × 254 × 89 mm 7.68 × 10 × 3.50 in.
Weight	600 g (21.2 oz.)	640 g (22.6 oz.)	536 g (18.9 oz.)	600 g (21.2 oz.)	1.7 kg (59.97 oz.)	

¹IR4056-21 excluded ²Terminals are excluded ³When the protector is attached ⁴When stored in attached CARRYING CASE C0212

Lineup - Analog Meters

To be discontinued

Product warranty for 3 years
Accuracy guaranteed for 1 year



Measurement parameters	<div style="text-align: center;"> <h3>3</h3> <p>3490</p> <p>Ranges</p>  </div>	Applied voltage (DC)	250 V	500 V	1000 V	
		Effective maximum indicated value		100 MΩ		4000 MΩ
		1st effective measuring range		0.05 MΩ to 50 MΩ		2 MΩ to 1000 MΩ
		2nd effective measuring range		0.01 MΩ to 0.05 MΩ or less 50 MΩ to 100 MΩ		0.5 MΩ to 2 MΩ 1000 MΩ to 4000 MΩ
		Accuracy (insulation)		±2% of scale length (1st effective measuring range) ±2% of scale length (2nd effective measuring range)		
AC Voltage		0 to 600 V				
Measurement parameters	<div style="text-align: center;"> <h3>1</h3> <p>IR4016 -20</p>  </div>	Applied voltage (DC)	500 V			
		Effective maximum indicated value	100 MΩ			
		1st effective measuring range	0.1 MΩ to 50 MΩ			
		2nd effective measuring range	0.01 MΩ to 0.1 MΩ or less 50 MΩ or more to 100 MΩ			
		Accuracy (insulation)	±2% of scale length (1st effective measuring range) ±2% of scale length (2nd effective measuring range)			
Measurement parameters	<div style="text-align: center;"> <h3>1</h3> <p>IR4017 -20</p>  </div>	Applied voltage (DC)	500 V			
		Effective maximum indicated value	1000 MΩ			
		1st effective measuring range	1 MΩ to 500 MΩ			
		2nd effective measuring range	0.5 MΩ to 1 MΩ or less 500 MΩ or more to 1000 MΩ			
		Accuracy (insulation)	±2% of scale length (1st effective measuring range) ±2% of scale length (2nd effective measuring range)			
Measurement parameters	<div style="text-align: center;"> <h3>1</h3> <p>IR4018 -20</p>  </div>	Applied voltage (DC)	1000 V			
		Effective maximum indicated value	2000 MΩ			
		1st effective measuring range	2 MΩ to 1000 MΩ			
		2nd effective measuring range	1 MΩ to 2 MΩ or less 1000 MΩ or more to 2000 MΩ			
		Accuracy (insulation)	±2% of scale length (1st effective measuring range) ±2% of scale length (2nd effective measuring range)			
AC Voltage		0 to 600 V				

Other	Value
Operating temperature	0°C to 40°C, 90% RH or less (non-condensating)
Storage temperature	-10°C to 50°C, 90% RH or less (non-condensating)
Dustproof and waterproof	IP40 (terminal excluded)
Drop proof	YES
Backlight	YES
Safety standard category	CAT III 600 V
Standards	EN61010 (Safety), EN61326 (EMC)
Power supply	LR6 alkaline battery x 4
Continuous operating time	20 hours
Dimensions (W x H x D)	3490: 162 x 167 x 52 mm (6.38 x 6.57 x 2.05 in.) IR4016, IR4017, IR4018: 162 x 182 x 57 mm (6.38 x 7.17 x 2.24 in.)
Weight	3490: 840 g (29.6 oz.), IR4016, IR4017, IR4018: 820 g (28.9 oz.)

Included accessories



L9787

- TEST LEAD L9787 (1.2 m)
- Neck strap
- LR6 alkaline battery x 4
- Instruction manual

Order code	3490
Order code	IR4016-20
Order code	IR4017-20
Order code	IR4018-20

- Clamp
- Insulation
- Tester
- Detectors
- Earth
- Power quality
- Power loggers
- Battery
- Logger
- LAN
- Lux
- Temperature
- Resistance

INSULATION TESTER IR4056-20, IR4056-21

Product warranty for 3 years
Accuracy guaranteed for 1 year



* IR4056-20 only



IR4056-20



- Included accessories
- TEST LEAD L9787
 - Neck strap
 - LR6 alkaline battery × 4
 - Instruction manual



IR4056-21
Not CE marked



- Included accessories
- TEST LEAD SET WITH REMOTE SWITCH L9788-11
 - Neck strap
 - LR6 alkaline battery × 4
 - Instruction manual



Comparator decision response time : 0.8 s

5 ranges

CAT III 600 V

INSULATION TESTER IR4057-50, IR4059

Product warranty for 3 years
Accuracy guaranteed for 1 year



* IR4057-50 only



IR4057-50



IR4059



- Included accessories
- CONNECTION CABLE L4930
 - ALLIGATOR CLIP SET L4935
 - TEST PIN SET L4938
 - TEST LEAD SET WITH REMOTE SWITCH (RED) L9788-10 (IR4059 only)
 - PROTECTOR Z5042 (IR4059 only)
 - Neck strap
 - LR6 alkaline battery × 4
 - Instruction manual



Comparator decision response time : 0.3 s

Digital bar graph

5 ranges

CAT III 600 V

WIRELESS ADAPTER Z3210 (option)
Attach to enable Bluetooth® wireless technology



INSULATION TESTER IR4053-10 (for Photovoltaic Generation Systems)

Product warranty for 3 years
Accuracy guaranteed for 1 year



IR4053-10



- Included accessories
- TEST LEAD L9787
 - Neck strap
 - LR6 alkaline battery × 4
 - Instruction manual



Comparator decision response time : 0.8 s

Comparator decision response time (PV) : 4 s

5 ranges

CAT III 600 V

Model	IR4056-20	IR4056-21	IR4057-50	IR4059	IR4053	Applied voltage (DC)					Basic accuracy	
						50 V	125 V	250 V	500 V	1000 V		
Insulation resistance		✓			✓	-					-	
						Effective maximum indicated value (MΩ)	100	250	500	2000	4000	-
						1st effective measuring range (MΩ)	0.200 to 10.00	0.200 to 25.0	0.200 to 50.0	0.200 to 500	0.200 to 1000	±2% rdg. ±2 dgt.
						2nd effective measuring range (MΩ)	10.1 to 100.0	25.1 to 250	50.1 to 500	501 to 2000	1010 to 4000	±5% rdg.
PV Ω measurement		N/A			✓	-					-	
						Effective maximum indicated value (MΩ)	500 V		1000 V		4000	-
						1st effective measuring range (MΩ)	0.200 to 500		0.200 to 1000		±4% rdg.	
						2nd effective measuring range (MΩ)	501 to 2000		1010 to 4000		±8% rdg.	
DC Voltage		N/A		✓		4.200 V, 42.00 V, 420.0 V, 1000 V					±1.3% rdg. ±4 dgt. *1	
		✓		N/A		4.200 V, 42.00 V, 420.0 V, 600 V					±1.3% rdg. ±4 dgt. *1	
AC Voltage		✓		✓		420.0 V *2, 600 V					±2.3% rdg. ±8 dgt. *1	
		✓		✓		420.0 V *2, 600 V					±2.3% rdg. ±8 dgt. *1	
Low resistance measurement		✓			N/A	10.00 Ω, 100.0 Ω, 1000 Ω					±3% rdg. ±2 dgt.	

Other	IR4056-20, IR4056-21, IR4057-50, IR4059: -25°C to 65°C, 90% RH or less (non-condensating)	IR4053: 0°C to 50°C, 90% RH or less (non-condensating)
Operating temperature	IR4056-20, IR4056-21, IR4057-50, IR4059: -25°C to 65°C, 90% RH or less (non-condensating)	
Storage temperature	IR4056-20, IR4056-21, IR4057-50, IR4059: -25°C to 65°C, 90% RH or less (non-condensating)	
Dustproof and waterproof	IP40 (terminal excluded)	
Standards	EN61326 (EMC), EN61557-1/2/4*3/10	
Power supply	LR6 alkaline battery × 4	
Continuous operating time	20 hours	
Dimensions (W × H × D)	IR4056-20, IR4056-21, IR4057-50, IR4053-10: 159 × 177 × 53 mm (6.26 × 6.97 × 2.09 in.)	
	IR4059: 160 × 98 × 46 mm (6.30 × 3.86 × 1.81 in.)	
Weight	IR4056-20, IR4056-21, IR4053-10: 600 g (21.2 oz.)	
	IR4059: 536 (18.9 oz.)	
	IR4057-50: 640 g (22.6 oz.)	

*1 Ranges in excess of 600 V, 1000 V are outside the accuracy guarantee
*2 Minimum indicated value: 30.0 V
*3 Subclause 4.3 of Part 4 (interchanging of test leads) is not applicable when L9788-10 is used

Order code	IR4056-20
Order code	IR4056-21
Order code	IR4057-50
Order code	IR4057-90
Order code	IR4059
Order code	IR4053-10
Order code	Z3210
Model IR4057-90 includes Z3210 as a set	

HIGH VOLTAGE INSULATION TESTER IR5050, IR5051

Product warranty for 3 years
Accuracy guaranteed for 1 year



IR5050 **IR5051**
IR5051-90 (include Z3210 as a set)

Standard **For PV systems**

5 ranges

CAT IV 1000 V, CAT III 2000 V

Order code **IR5050** Order code **IR5051**
Order code **IR5051-90**

Included accessories



- TEST LEAD L9850-01 (red), -02 (black), -03 (blue), 3 m (9.84 ft.)
- ALLIGATOR CLIP L9851-01 (red), -02 (black), -03 (blue)
- CARRYING CASE C0212
- LR6 alkaline battery x 8
- Instruction manual
- TEST PIN SET L9852 (IR5051 and IR5051-90 only)
- WIRELESS ADAPTER Z3210 (IR5051-90 only)

L9850, L9851

Options

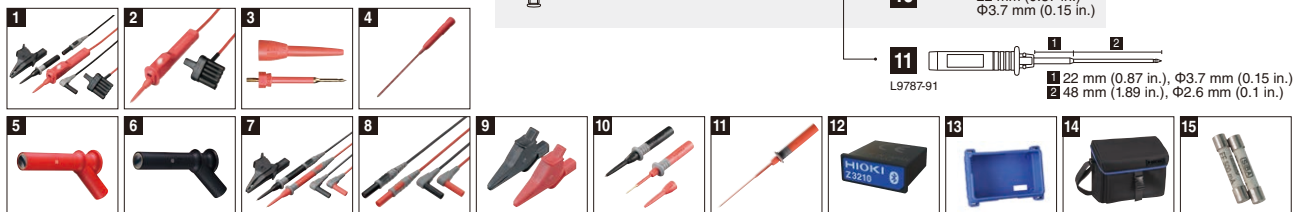
IR5050, IR5051		
1	TEST LEAD L9850-01	Red, 3 m (9.84 ft.)
2	TEST LEAD L9850-02	Black, 3 m (9.84 ft.)
3	TEST LEAD L9850-03	Blue, 3 m (9.84 ft.)
4	TEST LEAD L9850-11	Red, 10 m (32.81 ft.)
5	TEST LEAD L9850-12	Black, 10 m (32.81 ft.)
6	TEST LEAD L9850-13	Blue, 10 m (32.81 ft.)
7	ALLIGATOR CLIP L9851-01	Red
8	ALLIGATOR CLIP L9851-02	Black
9	ALLIGATOR CLIP L9851-03	Blue
10	TEST PIN SET L9852	Red and black
11	CARRYING CASE C0212	
12	WIRELESS ADAPTER Z3210	
13	COMMUNICATION PACKAGE DT4900-01	USB

Measurement parameters	Insulation resistance	Applied voltage (DC) and measurement range	250 V	0.00 MΩ to 500 GΩ
		500 V	0.00 MΩ to 1.00 TΩ	
	1000 V	0.00 MΩ to 2.00 TΩ		
	2500 V	0.00 MΩ to 5.00 TΩ		
	5000 V	0.00 MΩ to 10.00 TΩ		
	Leakage current	Rated current	1 mA to 1.2 mA	
		Short-circuit current	2 mA or less	
		Accuracy	±5% rdg., ±5 dgt., ±20% rdg.	
	DC voltage	Induced noise removal	3 mA max.	
			Leakage current	10 nA, 100 nA, 1000 nA, 10 μA, 100 μA, 1 mA Guaranteed accuracy range: 1.00 nA to 3.00 mA Accuracy: ±3% rdg., ±3 dgt.
AC voltage	±10 V to ±2000 V Accuracy: ±3% rdg., ±3 dgt.			
Capacitance	30 V to 1000 V Accuracy: ±3% rdg., ±3 dgt.			
PV insulation resistance (IR5051 only)	100 nF, 1000 nF, 10 μF Guaranteed accuracy range: 10.0 nF to 25.0 μF Accuracy: ±10% rdg., ±5 nF			
Other	Operating temperature and humidity range	500 V	0.00 MΩ to 100 GΩ	
		1000 V	0.00 MΩ to 100 GΩ	
		1500 V	0.00 MΩ to 100 GΩ	
	Storage temperature and humidity range	-20°C to 40°C, less than 80% RH (no condensation)*1		
		40°C to 45°C, less than 60% RH (no condensation)*1		
		45°C to 50°C, less than 50% RH (no condensation)*1		
	Dustproof/waterproof	-25°C to 65°C, less than 80% RH (no condensation)*1		
		IP40*1, IP65 (CARRYING CASE C0212)		
	Standards	EN IEC61010 (safety), EN61326 (EMC), IEC61557-1, -2 (insulation resistance tester)		
		Power supply Continuous operating time	• LR6 (AA) alkaline battery x 8: • Approx. 5 hours without Z3210 installed • Approx. 4 hours with Z3210 installed and using wireless communication	
Dimensions (W x H x D)	• HR6 (AA) nickel-metal hydride (NiMH) rechargeable battery x 8			
	Weight	195mm (7.68 in.) x 254 mm (10 in.) x 89 mm (3.50 in.)		
1.7 kg (59.97 oz.)				

*1: With protector attached, excluding terminals



IR4016-20, IR4017-20, IR4018-20, IR4056-20, IR4056-21, IR4057-50, IR4057-90, IR4053-10, IR4059, 3490		
1	TEST LEAD SET WITH REMOTE SWITCH L9788-11	
2	TEST LEAD WITH REMOTE SWITCH (RED) L9788-10	
3	TIP PIN L9788-90	
4	BREAKER PIN L9788-92	
5	MAGNETIC ADAPTER 9804-01	
6	MAGNETIC ADAPTER 9804-02	
7	TEST LEAD L9787	
8	CONNECTION CABLE SET L4930	
9	ALLIGATOR CLIP SET L4935	
10	TEST PIN SET L4938	
11	BREAKER PIN L9787-91	
12	WIRELESS ADAPTER Z3210 (for IR4057-50, IR4059)	
13	PROTECTOR Z5042 (for IR4059)	
14	CARRYING CASE C0213 (EV MAINTENANCE MANUAL INCLUDED)	
15	FUSE SET Z5052 (for IR4056, IR4057, and IR4059)	



Clamp
Insulation
Tester
Detectors
Earth
Power quality
Power loggers
Battery
Logger
LAN
Lux
Temperature
Resistance



DMM Testers

Safely Inspects and Easily Manages Measurement Data for High-Voltage Solar Power Generation

High voltage measurement up to CAT III 2000 V by connecting "P2010"



CAT IV 1000 V
CAT III 2000 V



DC HIGH VOLTAGE PROBE P2010 (options)

Supports wireless communication to increase work efficiency



Cooperation with Gennect Cross

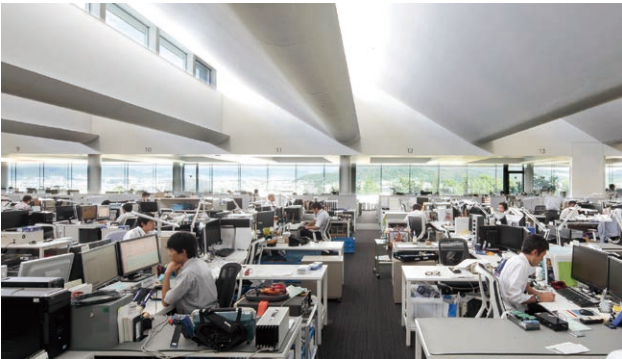


WIRELESS ADAPTER Z3210 (options)



DT4261

Designed and Manufactured in Japan



Development, design, and manufacturing processes for almost all Hioki digital multimeters are carried out at our headquarters in Nagano Prefecture.

Withstand a 1-meter Drop onto a Concrete Floor

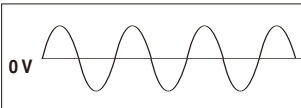


Products are dropped repeatedly until they are damaged in order to validate their impact performance. Test results are used to make design improvements and enhance durability.

Accurately Measure the Voltage of the Secondary Side of Inverters



Non-distorted current waveforms



Voltage waveforms with harmonic components

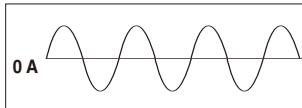


The secondary side of inverters include harmonic components. Waveforms containing harmonics are distorted and difficult to measure with accuracy. By using a low-pass filter to remove harmonic components, accurate measurement values can be obtained.

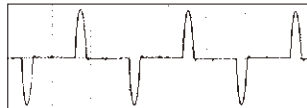
True RMS Measurement Correctly Captures Distorted Current Waveforms



Non-distorted current waveforms









Distorted waveforms due to switching power supplies









A measuring instrument uses one of two rectification methods, "True RMS" or "Mean". Using mean rectification assumes that the signal is based on a sine wave without distortions in order to calculate the value. Distorted waveforms cannot be measured accurately using this method.

Lineup

Measurement type	Electrical work	General use	Solar power, General use	General use	Air conditioning, instrumentation	Electrical work	
Model	High-end models		New standard model	Standard models			
Model	DT4281	DT4282	DT4261	DT4252	DT4253	DT4255	
Appearance							
AC measurement system	True RMS	True RMS	True RMS	True RMS	True RMS	True RMS	
Display counts	60000	60000	6000	6000	6000	6000	
DCV typical accuracy	±0.025% rdg. ±2 dgt.	±0.025% rdg. ±2 dgt.	±0.15% rdg. ±2 dgt.	±0.2% rdg. ±5 dgt.	±0.3% rdg. ±5 dgt.	±0.3% rdg. ±3 dgt.	
Frequency characteristics	20 Hz to 100 kHz	20 Hz to 100 kHz	40 Hz to 1 kHz	40 Hz to 1 kHz	40 Hz to 1 kHz	40 Hz to 1 kHz	
Measurement parameters	DC voltage (resolution)	1000 V (0.001 mV)	1000 V (0.001 mV)	1000 V, 2000 V ¹ (0.1 mV)	1000 V (0.1 mV)	1000 V (0.1 mV)	1000 V (0.1 mV)
	AC voltage (resolution)	1000 V (0.001 mV)	1000 V (0.001 mV)	1000 V (0.001 V)	1000 V (0.001 V)	1000 V (0.001 V)	1000 V (0.001 V)
	DCV + ACV	1000 V	1000 V	1000 V	N/A	N/A	N/A
	DC current (resolution)	600 mA (0.01 μA)	10 A (0.01 μA)	10 A (0.1 mA)	10 A (0.001 A)	60 mA (0.01 μA)	N/A
	AC current (resolution)	600 mA (0.01 μA)	10 A (0.01 μA)	10 A (0.1 mA)	10 A (0.001 A)	N/A	N/A
	AC current (clamp)	1000 A	N/A	1000 A	N/A	1000 A	1000 A
	Resistance	600 MΩ	600 MΩ	60 MΩ	60 MΩ	60 MΩ	60 MΩ
	Temperature	-40°C to 800°C	-40°C to 800°C	N/A	N/A	-40°C to 400°C	N/A
	Capacitance	100 mF	100 mF	10 mF	10 mF	10 mF	10 mF
	Frequency	500 kHz	500 kHz	99 kHz	99 kHz	99 kHz	99 kHz
	Continuity check	✓	✓	✓	✓	✓	✓
	Diode check	✓	✓	✓	✓	✓	✓
	Conductance	N/A	✓	N/A	N/A	N/A	N/A
	Voltage detection	N/A	N/A	N/A	N/A	N/A	✓
Additional functions	AUTO AC/DCV	N/A	N/A	✓	✓	✓	
	MAX/MIN/AVG	MAX/MIN	MAX/MIN	✓	✓	✓	
	PEAK display	✓	✓	✓	N/A	N/A	N/A
	Relative display	✓	✓	N/A	✓	✓	✓
	Decibel conversion	✓	✓	N/A	N/A	N/A	N/A
	Percentage conversion display (4-20 mA)	✓	✓	N/A	N/A	✓	N/A
Display	AUTO range	✓	✓	✓	✓	✓	
	Hold display value	AUTO /MANUAL	AUTO /MANUAL	AUTO /MANUAL	AUTO /MANUAL	AUTO /MANUAL	
	Dual display	✓	✓	✓	✓	✓	✓
	Bar graph display	N/A	N/A	✓	✓	✓	✓
	Backlight	✓	✓	✓	✓	✓	✓
Internal memory	✓	✓	N/A	N/A	N/A	N/A	
USB communication ²	✓	✓	✓	✓	✓	✓	
Bluetooth [®] communication	N/A	N/A	✓ (with Z3210)	N/A	N/A	N/A	
Safety	Mis-insertion prevention shutters	✓	✓	✓	N/A	N/A	
	Circuit breaker false trip prevention	N/A	N/A	N/A	N/A	N/A	
	Safety standard category	CAT IV 600 V CAT III 1000 V	CAT IV 600 V CAT III 1000 V	CAT IV 600 V CAT III 1000 V	CAT IV 600 V CAT III 1000 V	CAT IV 600 V CAT III 1000 V	CAT IV 600 V CAT III 1000 V
	CE	✓	✓	✓	✓	✓	✓
	Dustproof and waterproof	IP40	IP40	IP54 ^{*3}	IP40 (when operating) IP42 (while in storage) ^{*3 *4}	IP40 (when operating) IP42 (while in storage) ^{*3 *4}	IP40 (when operating) IP42 (while in storage) ^{*3 *4}
	Drop proof	✓	✓	✓	✓	✓	✓
Auto power off	✓	✓	✓	✓	✓	✓	
Power supply	LR6 x4 alkaline battery	LR6 x4 alkaline battery	LR6 x3 alkaline battery	LR03 x4 alkaline battery	LR03 x4 alkaline battery	LR03 x4 alkaline battery	
Dimensions (W x H x D)	93 x 197 x 53 mm 3.66 x 7.76 x 2.09 in.	93 x 197 x 53 mm 3.66 x 7.76 x 2.09 in.	87 x 185 x 47 mm 3.43 x 7.28 x 1.85 in.	84 x 174 x 52 mm 3.31 x 6.85 x 2.05 in.	84 x 174 x 52 mm 3.31 x 6.85 x 2.05 in.	84 x 174 x 52 mm 3.31 x 6.85 x 2.05 in.	
Weight	650 g, 22.9 oz.	650 g, 22.9 oz.	480 g, 16.9 oz.	390 g, 13.8 oz.	390 g, 13.8 oz.	390 g, 13.8 oz.	

*1: 2000 V is supported only when using the optional DC HIGH VOLTAGE PROBE P210 *2: Requires optional COMMUNICATION PACKAGE (USB) DT4900-01 *3: Do not use in wet conditions.
*4: Excludes measuring terminals

Measurement type	General use	Electrical work	General use	Electrical work	Electrical work	Electrical work	
Model	Standard models	Pocket models		3030-10	3244-60	3246-60	
Model	DT4256	DT4223	DT4224	3030-10	3244-60	3246-60	
Appearance							
AC measurement system	True RMS	True RMS	True RMS	N/A	MEAN Value	MEAN Value	
Display count	6000	6000	6000	N/A	4199	4199	
DCV typical accuracy	±0.3% rdg. ±3 dgt.	±0.5% rdg. ±5 dgt.	±0.5% rdg. ±5 dgt.	f.s. reading ±2.5%	±0.7% rdg. ±4 dgt.	±1.3% rdg. ±4 dgt.	
Frequency characteristics	40 Hz to 1 kHz	40 Hz to 1 kHz	40 Hz to 1 kHz	N/A	50 Hz to 500 Hz	50 Hz to 500 Hz	
Measurement parameters	DC voltage (resolution)	1000 V (0.1 mV)	600 V (0.1 mV)	600 V (0.1 mV)	600 V	500 V (0.1 mV)	600 V
	AC voltage (resolution)	1000 V (0.001 V)	600 V (0.001 V)	600 V (0.001 V)	600 V	500 V (0.001 V)	600 V
	DCV + ACV	N/A	N/A	N/A	N/A	N/A	N/A
	DC current (resolution)	10 A (0.01 mA)	N/A	N/A	300 mA	N/A	N/A
	AC current (resolution)	10 A (0.1 mA)	N/A	N/A	N/A	N/A	N/A
	AC current (clamp)	1000 A	N/A	N/A	N/A	N/A	N/A
	Resistance	60 MΩ	60 MΩ	60 MΩ	3 kΩ	42 MΩ	42 MΩ
	Temperature	N/A	N/A	N/A	150°C	N/A	N/A
	Capacitance	10 mF	N/A	10 mF	N/A	N/A	N/A
	Frequency	99 kHz	9.9 kHz	9.9 kHz	N/A	N/A	N/A
	Continuity check	✓	✓	✓	N/A	✓	✓
	Diode check	✓	N/A	✓	N/A	N/A	✓
	Conductance	N/A	N/A	N/A	N/A	N/A	N/A
Voltage detection	✓	✓	N/A	N/A	N/A	N/A	
Additional functions	AUTO AC/DCV	✓	✓	N/A	N/A	N/A	
	MAX/MIN/AVG	✓	N/A	N/A	N/A	N/A	
	PEAK display	N/A	N/A	N/A	N/A	N/A	
	Relative display	✓	✓	✓	N/A	N/A	
	Decibel conversion	N/A	N/A	N/A	N/A	N/A	
	Percentage conversion display (4-20 mA)	N/A	N/A	N/A	N/A	N/A	
Display	AUTO range	✓	✓	✓	N/A	✓	
	Hold display value	AUTO /MANUAL	AUTO /MANUAL	AUTO /MANUAL	N/A	N/A	
	Dual display	✓	N/A	N/A	N/A	N/A	
	Bar graph display	✓	✓	✓	N/A	N/A	
	Backlight	✓	✓	✓	N/A	N/A	
Internal memory	N/A	N/A	N/A	N/A	N/A	N/A	
USB communication ²	✓	N/A	N/A	N/A	N/A	N/A	
Bluetooth [®] communication	N/A	N/A	N/A	N/A	N/A	N/A	
Safety	Mis-insertion prevention shutters	N/A	N/A	N/A	N/A	N/A	
	Circuit breaker false trip prevention	N/A	✓	✓	N/A	N/A	
	Safety standard category	CAT IV 600 V CAT III 1000 V	CAT IV 300 V CAT III 600 V	CAT IV 300 V CAT III 600 V	CAT III 600 V	CAT III 300 V	CAT IV 300 V CAT III 600 V
	CE	✓	✓	✓	N/A	N/A	N/A
	Dustproof and waterproof	IP40 (when operating) IP42 (while in storage) *3 *4	IP40 (when operating) IP42 (while in storage) *3 *4	IP40 (when operating) IP42 (while in storage) *3 *4	N/A	N/A	N/A
	Drop proof	✓	✓	✓	✓	N/A	N/A
Auto power off	✓	✓	✓	N/A	✓	✓	
Power supply	LR03 × 4 alkaline battery	LR03 × 1 alkaline battery	LR03 × 1 alkaline battery	R6P × 2 manganese battery	CR2032 × 1 coin type battery	CR2032 × 1 coin type battery	
Dimensions (W × H × D)	84 × 174 × 52 mm 3.31 × 6.85 × 2.05 in.	72 × 149 × 38 mm 2.83 × 5.87 × 1.50 in.	72 × 149 × 38 mm 2.83 × 5.87 × 1.50 in.	95 × 141 × 39 mm 3.74 × 5.55 × 1.54 in.	55 × 109 × 9.5 mm 2.17 × 4.29 × 0.37 in.	30 × 182 × 26.5 mm 1.18 × 7.17 × 1.04 in.	
Weight	390 g, 13.8 oz.	190 g, 6.7 oz.	190 g, 6.7 oz.	280 g, 9.9 oz.	60 g, 2.1 oz.	80 g, 2.8 oz.	

Clamp

Insulation

Tester

Detectors

Earth

Power quality

Power loggers

Battery

Logger

LAN

Lux

Temperature

Resistance

Product warranty for 3 years
Accuracy guaranteed for 1 year



DIGITAL MULTIMETER DT4281, DT4282



DT4281



DT4282

Electrical work



General use



High-end models

60000 Counts

DCV typical accuracy: $\pm 0.025\%$ rdg. ± 2 dgt.

CAT IV 600 V, CAT III 1000 V

Premium DMMs Deliver
High Precision and
Full Array of Features

Extensive additional functionality

It is equipped with additional functions for more advanced measurements. It has a PEAK value display, useful for measuring ripple voltage in DC power supply systems, and a 4-20 mA and 0-20 mA conversion display, useful for measuring instrumentation signals.

- Display of maximum/minimum values
- Display of PEAK value
- Relative display
- Percent conversion 4-20 mA

Product warranty for 3 years
Accuracy guaranteed for 1 year



DIGITAL MULTIMETER DT4261



DT4261

General use



New standard model

6000 Counts

DCV typical accuracy: $\pm 0.15\%$ rdg. ± 2 dgt.

CAT IV 600 V, CAT III 1000 V

With P2010 CAT IV 1000 V, CAT III 2000 V

Safely inspects for high-voltage
solar power generation

Safety and convenience



measurable up to CAT III 2000 V.



Bluetooth® communication is available

DIGITAL MULTIMETER DT4252, DT4253, DT4255, DT4256

Product warranty for 3 years
Accuracy guaranteed for 1 year



DT4252



DT4253



DT4255



DT4256

General use



Air conditioning, instrumentation



Electrical work



General use



Standard models

6000 Counts

DCV typical accuracy: $\pm 0.3\%$ rdg. ± 5 dgt.

CAT IV 600 V, CAT III 1000 V

Choose from 4 Models to Fit Your Application

Equipped with specialized functions
catering to your needs

Air conditioning, instrumentation

- Measure low currents with 60 μ A range
- Test temperature
- 4 to 20 mA % display

Electrical work

- Prevent short-circuit accidents with a fast-blow fuse and current-limiting resistor

DIGITAL MULTIMETER DT4223, DT4224

Product warranty for 3 years
Accuracy guaranteed for 1 year



DT4223



DT4224

Electrical work



General use



Pocket models

6000 Counts

DCV typical accuracy: $\pm 0.5\%$ rdg. ± 5 dgt.

CAT IV 300 V, CAT III 600 V

Compact and Convenient

Circuit breaker false trip prevention



Eliminate accidents such as tripped earth leakage breakers or flash arcs even when mistakenly inputting voltage while in resistance measurement mode



Model	DT4281	DT4282	Basic accuracy		Basic accuracy
Measurement parameters	DC voltage	✓	✓	60.000 mV, 600.00 mV, 6.0000 V, 60.000 V, 600.00 V, 1000.0 V	±0.025% rdg. ±2 dgt.
	AC voltage	✓	✓	60.000 mV, 600.00 mV, 6.0000 V, 60.000 V, 600.00 V, 1000.0 V	±0.2% rdg. ±25 dgt.
	DCV + ACV	✓	✓	6.0000 V, 60.000 V, 600.00 V, 1000.0 V	±0.3% rdg. ±30 dgt.
	DC current	✓	N/A	600.00 µA, 6000.0 µA, 60.000 mA, 600.00 mA	±0.05% rdg. ±5 dgt.
		N/A	✓	600.00 µA, 6000.0 µA, 60.000 mA, 600.00 mA, 6.0000 A, 10.000 A	±0.05% rdg. ±5 dgt.
	AC current	✓	N/A	600.00 µA, 6000.0 µA, 60.000 mA, 600.00 mA, 6.0000 A, 10.000 A	±0.6% rdg. ±5 dgt.
		N/A	✓	600.00 µA, 6000.0 µA, 60.000 mA, 600.00 mA, 6.0000 A, 10.000 A	±0.6% rdg. ±3 dgt.
	AC current (clamp)	✓	N/A	10.00 A, 20.00 A, 50.00 A, 100.0 A, 200.0 A, 500.0 A, 1000 A	±0.6% rdg. ±2 dgt.
	Resistance	✓	✓	60.000 Ω, 600.00 Ω, 6.0000 kΩ, 60.000 kΩ, 600.00 kΩ, 6.0000 MΩ, 60.00 MΩ, 600.0 MΩ	±0.03% rdg. ±2 dgt.
	Temperature	✓	✓	-40.0°C to 800.0°C	±0.5% rdg. ±3°C
	Capacitance	✓	✓	1.000 nF, 10.00 nF, 100.0 nF, 1.000 µF, 10.00 µF, 100.0 µF, 1.000 mF, 10.00 mF, 100.0 mF	±1% rdg. ±5 dgt.
	Frequency	✓	✓	99.999 Hz, 999.99 Hz, 9.9999 kHz, 99.999 kHz, 500.00 kHz	±0.005% rdg. ±3 dgt.
	Continuity check	✓	✓	(Short detection) 20/50/100/500 Ω or less, (open detection) 220/250/300/600 Ω or more	-
	Diode check	✓	✓	0.15/0.5/1.0/1.5/2.0/2.5/3.0 V (continuous buzzer sound, flashing red light)	-
Conductance	N/A	✓	600.00 nS	-	

Other	
Operating temperature	-15°C to 55°C (non-condensating)
Storage temperature	-30°C to 60°C (non-condensating)
Dustproof and waterproof	IP40
Standards	EN61010 (Safety), EN61326 (EMC)
Power supply	LR6 alkaline battery x4
Continuous operating time	100 hours (backlight OFF)
Dimensions (W x H x D)	93 x 197 x 53 mm (3.66 x 7.76 x 2.09 in.)
Weight	650 g (22.9 oz.)

Included accessories



- L9300
- LR6 alkaline battery x 4
- Instruction manual

Order code **DT4281**

Order code **DT4282**

L9300



Model	DT4252	DT4253	DT4255	DT4256	DT4261	Basic accuracy		
Measurement parameters	DC voltage	N/A	✓	✓	✓	N/A	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V	±0.3% rdg. ±5 dgt.
		✓	N/A	N/A	N/A	N/A	600.0 mV, 6.000 V, 60.00 V, 600.0V, 1000 V	±0.2% rdg. ±5 dgt.
		N/A	N/A	N/A	N/A	✓	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V, 2000 V ²	±0.15% rdg. ±2 dgt.
	AC voltage	✓	✓	✓	✓	✓	6.000 V, 60.00 V, 600.0 V, 1000 V	±0.9% rdg. ±3 dgt.
		N/A	N/A	N/A	N/A	✓	6.000 V, 60.00 V, 600.0 V, 1000 V	±1.0% rdg. ±13 dgt.
	DC current	N/A	✓	N/A	N/A	N/A	60.00 µA, 600.0 µA, 6.000 mA, 60.00 mA	±0.8% rdg. ±5 dgt.
		N/A	N/A	N/A	✓	N/A	60.00 mA, 600.0 µA, 6.000 A, 10.00 A	±0.9% rdg. ±3 dgt.
		N/A	N/A	N/A	N/A	✓	600.0 mA, 6.000 A, 10.00 A	±0.5% rdg. ±3 dgt.
	AC current	✓	N/A	N/A	N/A	N/A	6.000 A, 10.00 A	±0.9% rdg. ±5 dgt.
		N/A	N/A	N/A	✓	✓	600.0 mA, 6.000 A, 10.00 A	±1.4% rdg. ±3 dgt.
	AC current (clamp)	N/A	✓	✓	✓	✓	10.00 A, 20.00 A, 50.00 A, 100.0 A, 200.0 A, 500.0 A, 1000 A	±0.9% rdg. ±3 dgt.
	Resistance	✓	✓	✓	✓	✓	600.0 Ω, 6.000 kΩ, 60.00 kΩ, 600.0 kΩ, 6.000 MΩ, 60.00 MΩ	±0.7% rdg. ±5 dgt.
	Temperature	N/A	✓	N/A	N/A	N/A	-40.0°C to 400.0°C	±0.5% rdg. ±2°C
	Capacitance	✓	✓	✓	✓	✓	1.000 µF, 10.00 µF, 100.0 µF, 1.000 mF, 10.00 mF	±1.9% rdg. ±5 dgt.
Frequency	✓	✓	✓	✓	✓	99.99 Hz, 999.9 Hz, 9.999 kHz, 99.99 kHz	±0.1% rdg. ±1 dgt.	
Continuity check	✓	✓	✓	✓	✓	(Short detection) 25 Ω or less, (open detection) 245 Ω or more	-	
Diode check	✓	✓	✓	✓	✓	0.15 V to 1.5 V (continuous buzzer sound, flashing red light)	-	
Voltage detection	N/A	N/A	✓	✓	N/A	(Detection voltage range) 40 V AC to 600 V AC, (Detection frequency range) 50/60 Hz	-	

Other	
Operating temperature	DT4255, DT4256, DT4261: -25°C to 65°C (non-condensating) DT4252, DT4253: -10°C to 50°C (non-condensating)
Storage temperature	DT4255, DT4256, DT4261: -30°C to 70°C (non-condensating) DT4252, 53: -30°C to 60°C (non-condensating)
Dustproof and waterproof	DT4252, DT4253, DT4255, DT4256: IP40 (when operating) IP42 (while in storage) ^{1,3,4} DT4261: IP54 ^{2,3}
Standards	EN61010 (Safety), EN61326 (EMC)
Power supply	DT4252, DT4253, DT4255, DT4256: LR03 alkaline battery x 4
Continuous operating time	DT4261: LR6 alkaline battery x 3 130 hours (backlight OFF)
Dimensions (W x H x D)	DT4252, DT4253, DT4255, DT4256: 84 x 174 x 52 mm (3.31 x 6.85 x 2.05 in.) DT4261: 87 x 185 x 47 mm (3.43 x 7.28 x 1.85 in.)
Weight	DT4252, DT4253, DT4255, DT4256: 390 g (13.8 oz.) DT4261: 480 g (16.9 oz.)

Included accessories



- Included with DT4252, DT4253, DT4255, DT4256**
- L9300
 - alkaline battery (LR03) x 4
 - Instruction manual

Order code **DT4252**

Order code **DT4253**

Order code **DT4255**

Order code **DT4256**

Order code **DT4261**

Order code **DT4261-90**

Order code **Z3210**



- Included with DT4261**
- L9300
 - alkaline battery (LR6) x 3
 - Instruction manual

Model DT4261-90 includes Z3210 as a set

*1: DT4261 Only *2: Only when using the optional DC HIGH VOLTAGE PROBE P2010
*3: Do not use in wet conditions *4: Excludes measuring terminals



Model	DT4223	DT4224	Basic accuracy		
Measurement parameters	DC voltage	✓	✓	600.0 mV, 6.000 V, 60.00 V, 600.0 V	±0.5% rdg. ±5 dgt.
	AC voltage	✓	✓	6.000 V, 60.00 V, 600.0 V	±1.0% rdg. ±3 dgt.
	Resistance	✓	✓	600.0 Ω, 6.000 kΩ, 60.00 kΩ, 600.0 kΩ, 6.000 MΩ, 60.00 MΩ	±0.9% rdg. ±5 dgt.
	Capacitance	N/A	✓	1.000 µF, 10.00 µF, 100.0 µF, 1.000 mF, 10.00 mF	±1.9% rdg. ±5 dgt.
	Frequency	✓	✓	99.99 Hz, 999.9 Hz, 9.999 kHz	±0.1% rdg. ±2 dgt.
	Continuity check	✓	✓	(Short detection) 25 Ω or less, (open detection) 245 Ω or more	-
	Diode check	N/A	✓	0.15 V to 1.5 V (continuous buzzer sound, flashing red light)	-
Voltage detection	✓	N/A	(Detection voltage range) 80 V AC to 600 V AC, (Detection frequency range) 50/60 Hz	-	

Other	
Operating temperature	-10°C to 65°C (non-condensating)
Storage temperature	-30°C to 70°C (non-condensating)
Dustproof and waterproof	IP40 (when operating), IP42 (while in storage) *1 *2
Standards	EN61010 (Safety), EN61326 (EMC)
Power supply	LR03 alkaline battery x 1
Continuous operating time	40 hours (backlight OFF)
Dimensions (W x H x D)	72 x 149 x 38 mm (2.83 x 5.87 x 1.50 in.)
Weight	190 g (6.7 oz.)

Included accessories



- DT4911
- LR03 alkaline battery x 1
- Instruction manual

Order code **DT4223**

Order code **DT4224**

DT4911

*1: Do not use in wet conditions *2: Excludes measuring terminals

HITESTER 3030-10

Product warranty for 3 years
Accuracy guaranteed for 1 year

To be discontinued



CAT III 600 V

CARRYING CASE 9390



Order code **3030-10**

Included accessories

- TEST LEAD L9207-30
- CARRYING CASE 9390
- R6P manganese battery x2
- Spare fuse
- Instruction manual

L9207-30

Options

- CONTACT PIN SET L4933
- SMALL ALLIGATOR CLIP SET L4934
- HIGH VOLTAGE PROBE 9017
- FUSE SET Z5051



Measurement parameters	DC Voltage	0.3 V, 3 V, 12 V, 30 V, 120 V, 300 V, 600 V Accuracy: $\pm 2.5\%$ of f.s. reading
	AC Voltage	12 V, 30 V, 120 V, 300 V, 600 V Accuracy: $\pm 2.5\%$ of f.s. reading, (12V: $\pm 4\%$)
	DC Current	60 μ A, 30 mA, 300 mA Accuracy: $\pm 3\%$ of f.s. reading
	Resistance	0 to 3k Ω : R \times 1, R \times 10, R \times 100, R \times 1k Accuracy: $\pm 3\%$ of scale length
	Battery check	0.9 to 1.8 V Accuracy: $\pm 6\%$ of f.s. reading
Other	Operating temperature	0°C to 40°C (non-condensating)
	Storage temperature	-10°C to 50°C (non-condensating)
	Power supply	R6P manganese battery x2
	Dimensions (W x H x D)	95 x 141 x 39 mm (3.74 x 5.55 x 1.54 in.)
Weight	280 g (9.9 oz.)	

CARD HITESTER 3244-60

Product warranty for 3 years
Accuracy guaranteed for 1 year



CAT III 300V, CAT II 600V

CARRYING CASE C0204



Cord length
46cm (1.51 ft.)

Order code **3244-60**

Included accessories

- CARRYING CASE C0204
- Sleeves (red, black @ 1 each)
- CR2032 coin type battery x1
- Instruction manual



Measurement parameters	DC Voltage	420.0 mV, 4.200 V, 42.00 V, 420.0 V, 500 V Accuracy: $\pm 0.7\%$ rdg. ± 4 dgt.
	AC Voltage	4.200 V, 42.00 V, 420.0 V, 500 V Accuracy: $\pm 2.3\%$ rdg. ± 8 dgt.
	Resistance	420.0 Ω , 4.200 k Ω , 42.00 k Ω , 420.0 k Ω , 4.200 M Ω , 42.00 M Ω Accuracy: $\pm 2.0\%$ rdg. ± 4 dgt.
	Continuity check	Detection level: 50 Ω ± 40 Ω or less
	Operating temperature	0°C to 40°C (non-condensating)
Other	Storage temperature	-20°C to 60°C (non-condensating)
	Power supply	CR2032 coin type battery x1
	Dimensions (W x H x D)	55 x 109 x 9.5 mm (2.17 x 4.29 x 0.37 in.)
	Weight	60 g (2.1 oz.)

PENCIL HITESTER 3246-60

Product warranty for 3 years
Accuracy guaranteed for 1 year



CAT IV 300 V, CAT III 600 V

Cord length
80 cm (2.62 ft.)



Test lead fits neatly
into back of instrument

Included accessories

- Sleeves (red, black @ 1 each)
- CR2032 coin type battery x1
- Instruction manual

Order code **3246-60**



Measurement parameters	DC Voltage	420.0 mV, 4.200 V, 42.00 V, 420.0 V, 600 V Accuracy: $\pm 1.3\%$ rdg. ± 4 dgt.
	AC Voltage	4.200 V, 42.00 V, 420.0 V, 600 V Accuracy: $\pm 2.3\%$ rdg. ± 8 dgt.
	Resistance	420.0 Ω , 4.200 k Ω , 42.00 k Ω , 420.0 k Ω , 4.200 M Ω , 42.00 M Ω Accuracy: $\pm 2.0\%$ rdg. ± 4 dgt.
	Continuity check	Detection level: 50 Ω ± 40 Ω or less
	Diode check	Judges the right direction only, Open terminal voltage 3.4 V or less
Other	Operating temperature	0°C to 40°C (non-condensating)
	Storage temperature	-20°C to 60°C (non-condensating)
	Power supply	CR2032 coin type battery x1
	Dimensions (W x H x D)	30 x 182 x 26.5 mm (1.18 x 7.17 x 1.04 in.)
Weight	80 g (2.8 oz.)	

Options

1 DT4911
With caps: CAT IV 300 V, CAT III 600 V
Without caps: CAT II 600 V
Rated current: 2 A
Cable length: 54 cm (1.77ft.)
Includes red and black caps (1 each)

2 L9300
With sliding cap design:
- Extended cap/shorter pin: CAT IV 600 V, CAT III 1000 V
- Retracted cap/longer pin: CAT II 1000 V
Rated current: 10 A
Cable length: 95 cm (3.12ft.)

3 P2010
DT4261 Only
CAT IV 1000 V and CAT III 2000 V
Cable length 1.5 m (4.92 ft.)

4 L4930
Rated current: 10 A
Cable length: 1.2 m (3.94 ft.)

5 L4931
Rated current: 10 A
Cable length: 1.5 m (4.92 ft.)
Includes coupling connector

6 DT4910
-40°C to 260°C
Sensor length 80 cm (2.62 ft.)

7 9704

11 L4933*1
48 mm (1.89 in.)
Rated voltage: AC 30 V, DC 60 V
Rated current: 3 A

12 L4934*1
CAT III 300 V, CAT II 600 V
Rated current: 3 A

*1: Remove the cap from L9208 and install it.
Slide the guard on the L9300 and secure it in place in Category II configuration.

13 L4935
CAT IV 600 V and CAT III 1000 V
Rated current: 10 A

14 L9243
97 mm (3.82 in.)
CAT II 1000 V
Rated current: 1 A

15 L4936
CAT III 600 V
Rated current: 5 A
30mm (1.18 in.)

16 L4937
CAT III 1000 V
Rated current: 2 A
Magnet: Φ6 mm (0.24 in.)

17 L4932
With caps: CAT IV 600 V, CAT III 1000 V
Without caps: CAT II 1000 V
Rated current: 10 A
Includes red and black caps (1 each)

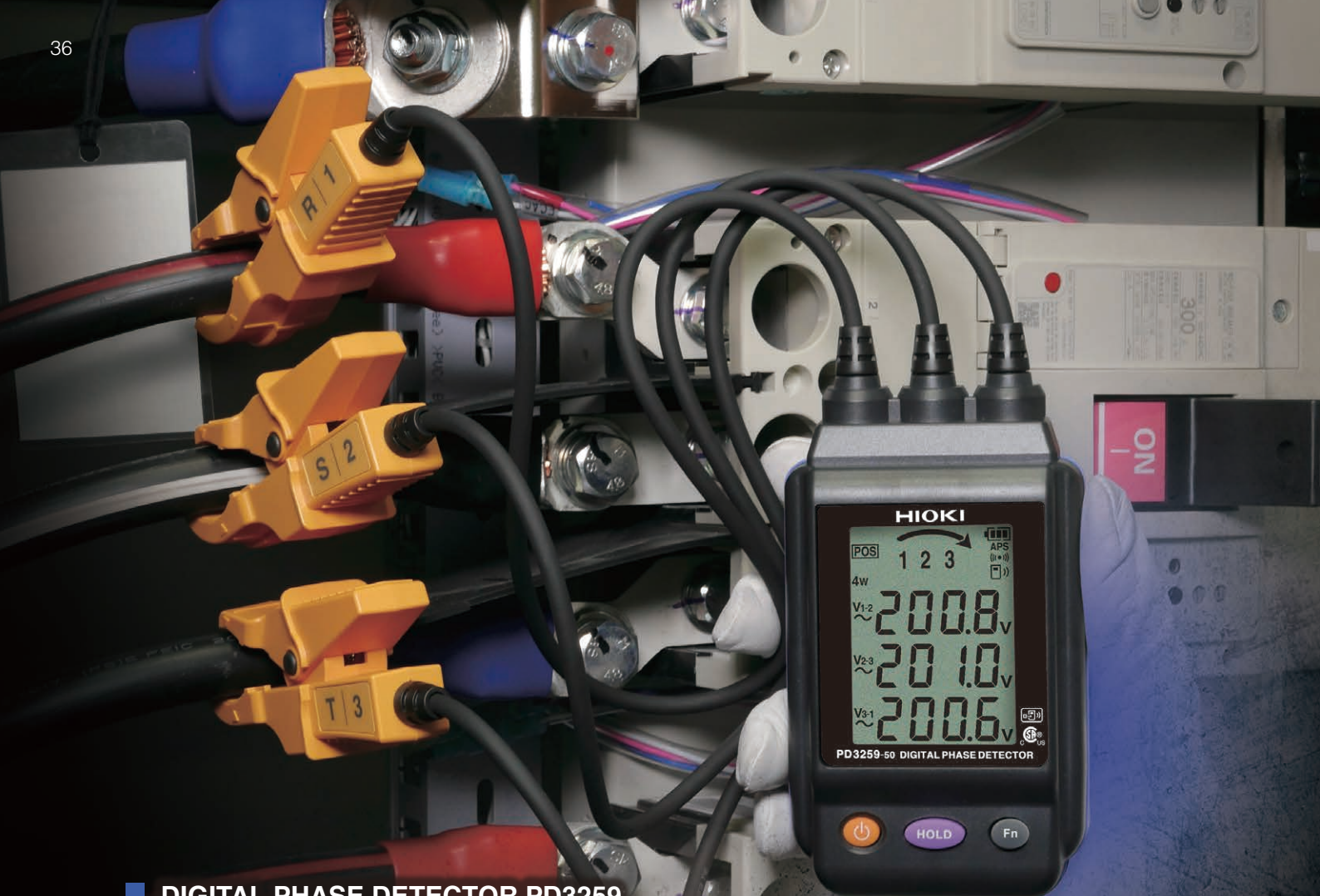
18 L4938
With caps: CAT III 600 V
Without caps: CAT II 600 V
Rated current: 10 A
Includes red and black caps (1 each)

19 L4939
CAT III 600 V, Rated current 10 A
1 22 mm (0.87 in.), Φ3.7 mm (0.15 in.)
2 48 mm (1.89 in.), Φ2.6 mm (0.1 in.)

DT4223, DT4224, DT4252, DT4253, DT4255, DT4256, DT4261, DT4281, DT4282	
1 TEST LEAD DT4911	With caps: CAT IV 600 V, CAT III 1000 V Without caps: CAT II 1000 V Rated current: 10 A
2 TEST LEAD L9300	CAT IV 600 V, CAT III 1000 V CAT II 1000 V 10 A
3 DC HIGH VOLTAGE PROBE P2010	For DT4261 CAT IV 1000 V, CAT III 2000 V
4 CONNECTION CABLE L4930	10 A
5 EXTENSION CABLE SET L4931	10 A
6 THERMOCOUPLES (K) DT4910	
7 CONVERSION ADAPTER 9704	
8 AC CLAMP ON PROBE 9010-50 ²	500 A AC, Φ46mm, Frequency characteristics: 40 Hz to 1 kHz
9 AC CLAMP ON PROBE 9018-50 ²	500 A AC, Φ46mm, Frequency characteristics: 40 Hz to 3 kHz
10 AC CLAMP ON PROBE 9132-50 ²	1000 A AC, Φ55mm, Frequency characteristics: 40 Hz to 1 kHz
11 CONTACT PIN SET L4933	AC 30 V, DC 60 V, 3 A
12 SMALL ALLIGATOR CLIP SET L4934	CAT III 300 V, CAT II 600 V, 3 A
13 ALLIGATOR CLIP SET L4935	CAT IV 600 V, CAT III 1000 V, 10 A
14 GRABBER CLIP L9243	CAT II 1000 V, 1 A
15 BUS BAR CLIP SET L4936	CAT III 600 V, 5 A
16 MAGNETIC ADAPTER SET L4937	CAT III 1000 V, 2 A
17 TEST PIN SET L4932	With caps: CAT IV 600 V, CAT III 1000 V Without caps: CAT II 1000 V 10 A
18 TEST PIN SET L4938	With caps: CAT III 600 V Without caps: CAT II 600 V 10 A
19 BREAKER PIN L4939	CAT III 600 V, 10 A
20 COMMUNICATION PACKAGE (USB) DT4900-01	For DT4252, DT4253, DT4255, DT4256, DT4261, DT4281, DT4282 Windows 11/10
21 MAGNETIC STRAP Z5004	For DT4223, DT4224, DT4252, DT4253, DT4255, DT4256, DT4261
22 MAGNETIC STRAP Z5020	Extra strength
23 CARRYING CASE C0200	For DT4223, DT4224
24 CARRYING CASE C0201	For DT4252, DT4253, DT4255, DT4256
26 CARRYING CASE C0202	For DT4252, DT4253, DT4255, DT4256, DT4261, DT4281, DT4282

27 CARRYING CASE C0207	
28 FUSE SET Z5053	DT4252, DT4256, DT4261, DT4282
29 FUSE SET Z5054	DT4281, DT4282, DT4255
30 FUSE SET Z5055	DT4253

² Adapter Model 9704 is required to connect AC CLAMP ON PROBES 9010-50, 9018-50 and 9132-50 to the DT4281, DT4253, DT4255, DT4256 or DT4261

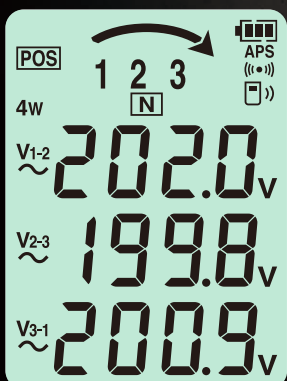


DIGITAL PHASE DETECTOR PD3259

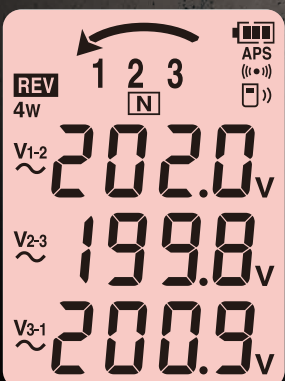
**Just Clip the Probes onto Covered Cables,
and Your 3-phase Power Line Inspection is Complete**

phase
sequence

3-phase
voltage



Positive phase sequence display



Negative phase sequence display

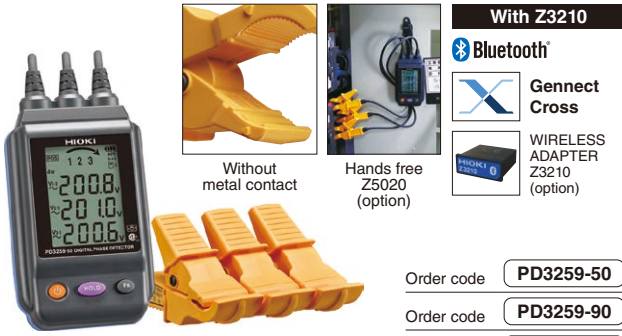


Display phase sequence, 3-phase voltage
Use as-is in work certification photos

Phase Detectors Voltage Detectors

DIGITAL PHASE DETECTOR PD3259-50

Product warranty for 3 years
Accuracy guaranteed for 1 year



Included accessories

- CARRYING CASE C0203
- Dimensions:
W135 mm (5.31 in.) × H265 mm (10.43 in.) × D65 mm (2.56 in.)
- AA alkaline batteries (LR6) ×4
- Color clips (white ×2, red ×2, blue ×2, yellow ×2)
- Spiral tubes (black ×1)
- Instruction manual

Options

- MAGNETIC STRAP Z5020

With Z3210

Bluetooth

Gennect Cross

WIRELESS ADAPTER Z3210 (option)

Order code **PD3259-50**

Order code **PD3259-90**

Order code **Z3210**

Model PD3259-90 includes Z3210 as a set



CAT IV 600 V

Soil, residue, or moisture on the insulated wires may result in lower voltage and power values than their true values. Use a dry cloth to remove before measuring.

Measurement parameters	Detection functions	Phase detection, open phase, prediction of ground phase (three-phase line)
	Three-phase AC voltage (line-to-line voltage and voltage to ground)	90.0 V to 520.0 V AC (three-phase line) accuracy: ±2.0% rdg. ±8 dgt.
	Frequency	45 Hz to 66 Hz Accuracy: ±0.5% rdg. ±1 dgt.
	Measurement targets	Covered cables, metal portions ¹ Finished outer diameter 6 to 30 mm (0.24 to 1.18 in.)
Other	Operating temperature	-25°C to 65°C, 80% RH or less (non-condensating)
	Storage temperature	-25°C to 65°C, 80% RH or less (non-condensating)
	Dustproof and waterproof	IP54 (device body only)
	Standards	EN61010 (Safety), EN61326 Class A (EMC)
	Power supply	LR6 alkaline battery ×4
	Continuous operating time	5 hours (without Z3210)
Dimensions (W × H × D)		84 × 146 × 46 mm (3.31 × 5.75 × 1.81 in.)
		Cable length 50 cm (1.64 ft.)
Weight		590 g (20.8 oz.)

¹ Shielded cables not supported

PHASE DETECTOR PD3129, PD3129-10

Product warranty for 3 years



Included accessories

- Carrying case
- Strap
- AA alkaline battery (LR6) ×2
- Spiral tube
- Instruction manual

Order code **PD3129**

Order code **PD3129-10**



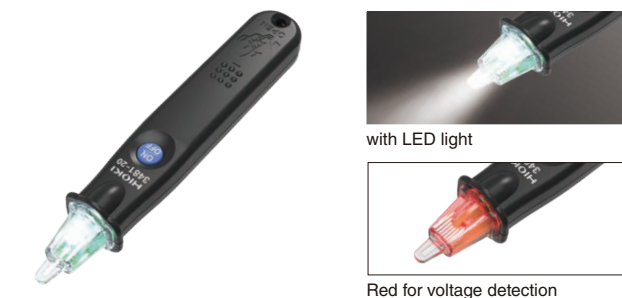
PD3129 CAT IV 600 V

PD3129-10 CAT IV 600 V, CAT III 1000 V

Measurement parameters	Detection functions	Phase detection (positive and negative)	
	Voltage range	PD3129	70 to 600 V AC (continuous sine wave)
		PD3129-10	70 to 1000 V AC (continuous sine wave)
	Frequency range		45 Hz to 66 Hz
Measurement targets	PD3129	2.4 mm (0.09 in.) to 17 mm (0.67 in.) of insulated wiring	
	PD3129-10	7 mm (0.28 in.) to 40 mm (1.57 in.) of insulated wiring	
Phase-detection indication	Positive	4 LEDs lit in clockwise order and the buzzer sounds intermittently, green arrow lights up	
	Negative	4 LEDs lit in counterclockwise order and the buzzer sounds continuously	
Other	Functions	Live line check, Battery check function	
	Operating temperature	0°C to 40°C, 80% RH or less (non-condensating)	
	Storage temperature	-20°C to 60°C, 80% RH or less (non-condensating)	
	Standards	EN61010 (Safety), EN61326 (EMC)	
	Power supply	AA alkaline battery (LR6) × 2	
	Continuous operating time	Continuous use: 200 hr	
Dimensions (W × H × D)		70 × 75 × 30 mm (2.76 × 2.95 × 1.18 in.)	
		Cable length 70 cm (2.30 ft.)	
Weight		PD3129: 200 g (7.1 oz.), PD3129-10: 240 g (8.5 oz.)	

VOLTAGE DETECTOR 3481-20

Product warranty for 3 years
Accuracy guaranteed for 1 year



Included accessories

- LR44 button alkaline battery ×3
- Instruction manual

Order code **3481-20**



CAT IV 600 V

Measurement parameters	Operating voltage range	40 to 600 V AC (50/60Hz)
	Maximum sensitivity variable range	40 to 80 V AC (50/60Hz)
Other	Pilot light	Red LED lights up and the buzzer sounds when the wire is live
	Operating temperature	0°C to 40°C, 80% RH or less (non-condensating)
	Storage temperature	-20°C to 60°C, 80% RH or less (non-condensating)
	Standards	EN61010 (Safety), EN61326 (EMC)
	Power supply	LR44 button alkaline battery × 3
	Continuous operating time	5 hours
Dimensions (W × H × D)		20 × 126 × 15 mm (0.79 × 4.96 × 0.59 in.)
	Weight	30 g (1.1 oz.)

Clamp
Insulation
Tester
Detectors
Earth
Power quality
Power loggers
Battery
Logger
LAN
Lux
Temperature
Resistance



EARTH TESTER FT6041
Field-capable, Fast-working



Shorter work times

6 sec. measurements

Fast measurement!
 Cord rewinding that doesn't tangle or twist



Allowable resistance
100 kΩ

Insert just once thanks to 100 kΩ max. allowable resistance

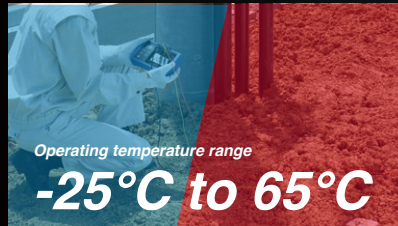


Make measurements, even on concrete.
 Newly designed Earth Nets Module L9846



IP67

Dirt, sand, and rain resistance
 IP67 dust and water protection



Operating temperature range
-25°C to 65°C

Extreme cold, extreme heat. The FT6041 won't fail, even during extended operation.



With protector attached
 Drop-proof design

1 m

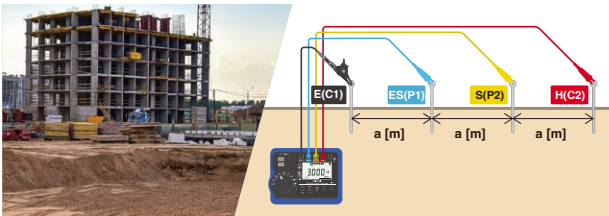
Withstands being dropped onto concrete from a height of 1 m

Earth Testers

Lineup

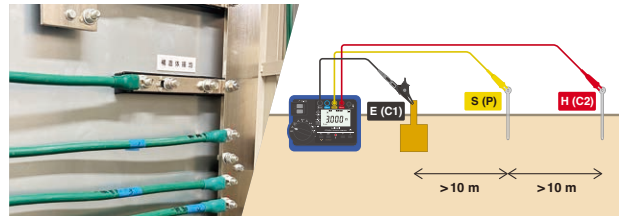
Model		FT6041	FT6031-50	FT3151	FT6380-50
Appearance					
Ground resistance	Two-pole method	✓	✓	✓	–
	Three-pole method	✓	✓	✓	–
	MEC function	✓	–	–	–
	2-clamp method	✓	–	–	✓
Soil resistivity	Four-pole method	✓	–	–	–
Ground potential		0 to 30.0 V RMS	0 to 30.0 V RMS	0 to 30.0 V RMS	–
Measurement range (ground resistance)		3 Ω to 300 kΩ	20 Ω to 2000 Ω	10 Ω to 1000 Ω	0.20 Ω to 1600 Ω
Measuring frequency		94, 105, 111, 128, 55 Hz	128 Hz	575, 600 Hz	2375 Hz
Allowable ground potential		30 V RMS (DC or sine wave)	25.0 V RMS (DC or sine wave)	10 V	3 V RMS (DC or sine wave)
Allowable resistance of auxiliary grounding electrode		Max. 100 kΩ	Max. 50 kΩ	Max. 5 kΩ	–
Cord winders		✓	✓	✓	–
Operating temperature		-25°C to 65°C (-13°F to 149°F)	-25°C to 65°C (-13°F to 149°F)	0°C to 40°C (32°F to 104°F)	-10°C to 50°C (14°F to 122°F)
Dustproof and waterproof		IP67	IP67	IP40	IP40 with jaws closed
Drop-proof		1 m above concrete (with protector attached)	1 m above concrete (with protector attached)	–	–
Support for Gennect Cross (storage of measured values)		✓	✓	–	✓
Clamp measurement method (maximum measurable conductor diameter)		✓ (with optional sensor) Φ 52 mm (2.05 in.) 78 mm (3.07 in.) × 20 mm (0.79 in.) busbar	–	–	✓ Φ 32 mm (1.26 in.)

EARTH TESTER FT6041 Extensive Measurement Functionality



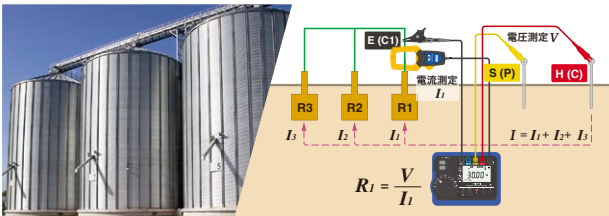
4-pole method

Measure soil resistivity when surveying a grounding design



3-pole method

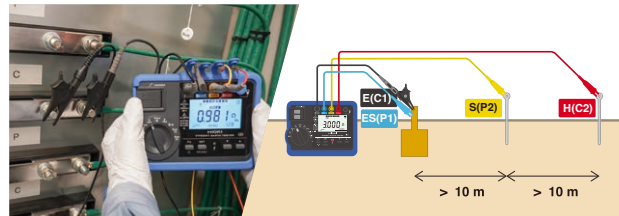
Precisely measure ground resistance



MEC function

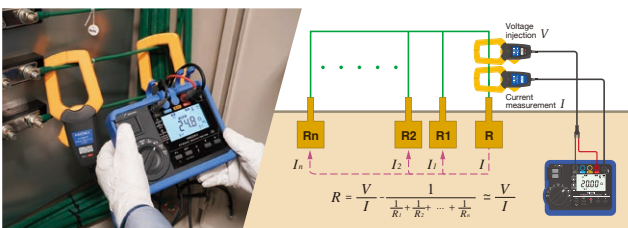
MEC stands for "measuring earth with a clamp."

Measure ground resistance without disconnecting ground electrodes



3-pole method using 4-terminal measurement

Measure ground resistance values of several ohms or less



2-clamp method

Measure grounding resistance at multiple grounds



Low-resistance measurement

Continuity test after ground resistance measurement

Clamp

Insulation

Tester

Detectors

Earth

Power quality

Power loggers

Battery

Logger

LAN

Lux

Temperature

Resistance

EARTH TESTER FT6041

Product warranty for 3 years
Accuracy guaranteed for 1 year



Extensive measurement functionality

Dustproof and waterproof: **IP67**

4-pole
method
Wenner's
4-pole method

3-pole
method

2-pole
method

Low-
resistance
measurement

2-clamp
method
for multi grounded
systems

MEC
function

With Z3210

Bluetooth

Please see www.hioki.com
for list of supported regions.



Gennect
Cross

Z3210

Z3210

Z3210

CAT IV 100 V

CAT III 150 V

CAT II 300 V

Order code **FT6041**

Order code **FT6041-91**

Order code **Z3210**

FT6041-91: FT6041 and included accessories,
also includes clamps FT9847 and CT9848

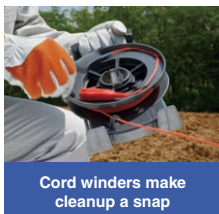
Basic specifications

Measurement parameters	<ul style="list-style-type: none"> • Ground resistance measurement: 4-pole method, 3-pole method, 2-pole method, MEC function, clamp-on measurement (two clamps) • Soil resistivity measurement: 4-pole method • Low-resistance measurement: 4-terminal method, 2-terminal method • Ground potential measurement
Ground potential	0 to 30.0 V RMS, accuracy: $\pm 2.3\%$ rdg. ± 8 dgt. (50/60 Hz), $\pm 1.3\%$ rdg. ± 4 dgt. (DC)
Functions	Live wire warning, auto power save, soil resistivity display (4-pole method only), zero-adjustment, auto-hold, continuous measurement mode, wireless communication (only when Z3210 is connected), buzzer sound, comparator, switching the display, ground potential overload display (when measuring ground resistance)
Operating temperature and humidity	-25°C to 65°C^1 (non-condensing)
Storage temperature and humidity	-25°C to 65°C : 80% RH or less (non-condensing)
Dustproof and waterproof	IP65/IP67 (EN60529)
Applicable standards	EN 61010 (safety), EN 61326 (EMC), EN61557-1/EN61557-10/EN61557-14 (low-resistance measurement, earth testers), EN61557-5 (earth testers)
Power supply	HR6 nickel-metal hydride battery x 4 or LR03 alkaline battery x 4
Number of measurements per battery charge ²	500 times (3-pole method, without Z3210 installed) 400 times (3-pole method, with Z3210 installed and using wireless communication)
Dimensions and mass	189 mm (7.44 in.) W x 148 mm (5.83 in.) H x 48 mm (1.89 in.) D, approx. 765 g (27.98 oz.) (including battery, protector)

Ground resistance measurement: 4-pole method, 3-pole method, 2-pole method						
Measurement principle	Apply voltage and measure voltage and current (measures effective resistance by synchronous detection)					
Ground resistance range	3 Ω (0 to 3.000 Ω)	30 Ω (0 to 30.00 Ω)	300 Ω (30.0 Ω to 300.0 Ω)	3000 Ω (300 Ω to 3000 Ω)	30.00 k Ω (3.00 k Ω to 30.00 k Ω)	300.0 k Ω (30.0 k Ω to 300.0 k Ω)
Accuracy	-	$\pm 1.5\%$ rdg. ± 6 dgt.			$\pm 1.5\%$ rdg. ± 4 dgt.	
Allowable resistance of auxiliary grounding electrode	5 k Ω		50 k Ω	100 k Ω		
Allowable ground potential	30 V RMS or 42.4 V peak					
MEC function: 4-pole method with clamp sensor, 3-pole method with clamp sensor						
Measurement principle	Apply voltage and measure voltage and current (measures effective resistance by synchronous detection)					
Ground resistance range	30 Ω (0.00 to 30.00 Ω)	300 Ω (30.0 Ω to 300.0 Ω)	3000 Ω (300 Ω to 3000 Ω)	30.00 k Ω (3 k Ω to 30.00 k Ω)		
Accuracy	$\pm 5\%$ rdg. ± 6 dgt.		$\pm 5\%$ rdg. ± 3 dgt.			
Ground resistance measurement: 2-clamp method						
Measurement principle	Apply voltage and measure voltage and current (measures effective resistance by synchronous detection)					
Ground resistance range	20 Ω (0.02 Ω to 20.00 Ω)	200 Ω (20.0 Ω to 200.0 Ω)	500 Ω (200 Ω to 500 Ω)			
Accuracy	$\pm 7\%$ rdg. ± 3 dgt.			$\pm 35\%$ rdg.		
Low-resistance measurement						
Open-circuit voltage	4.0 V to 6.9 V					
Measuring current	200 mA or more					
Measurement range	30 Ω (0.00 to 30.00 Ω)	300 Ω (30.0 Ω to 300.0 Ω)	3000 Ω (300 Ω to 3000 Ω)			
Accuracy	± 3 dgt. (0.00 to 0.19 Ω) $\pm 2\%$ rdg. ± 2 dgt. (0.20 Ω to 10.00 Ω)				$\pm 2\%$ rdg. ± 2 dgt.	

¹ -25°C to 40°C , -13°F to 104°F (80% RH or less), 40°C to 45°C , 104°F to 113°F (60% RH or less), 45°C to 50°C , 113°F to 122°F (50% RH or less), 50°C to 55°C , 122°F to 131°F (40% RH or less), 55°C to 60°C , 131°F to 140°F (30% RH or less), 60°C to 65°C , 140°F to 149°F (25% RH or less)

² NiMH battery x 4 (reference value at 23°C)



Cord winders make
cleanup a snap

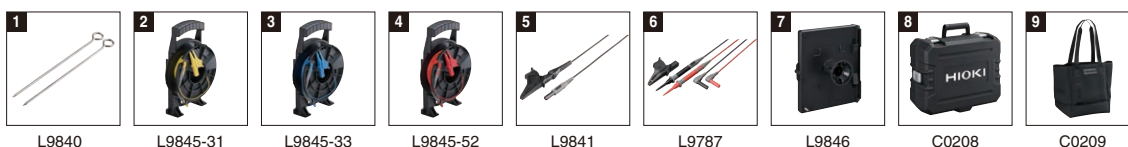


Sturdy, thin rods drive
easier into the ground



Make measurements,
even on concrete.

Included accessories		
1	AUXILIARY EARTHING ROD L9840	2 piece set, 270 mm (10.63 in.), Stainless steel
2	MEASUREMENT CABLE L9845-31	Yellow, 25 m (82.02 ft.), equipped with winder
3	MEASUREMENT CABLE L9845-33	Blue, 25 m (82.02 ft.), equipped with winder
4	MEASUREMENT CABLE L9845-52	Red, 50 m (164.04 ft.), equipped with winder
5	MEASUREMENT CABLE L9841	Black 4 m (13.12 ft.) length
6	TEST LEAD L9787	Bundled with line/ground lead, alligator clip, 1.2 m (3.94 ft.) long
7	EARTH NETS MODULE L9846	2 pcs, use with measuring cord set, built-in grounding/earth nets
8	CARRYING CASE C0208	For storing FT6041 and clamp sensors, hard type
9	CARRYING CASE C0209	For storing measurement cables, soft type
10	Protector	Attaches to and protect FT6041
11	LR6 alkaline battery	4 pcs
12	Instruction manual, Operating precautions	



Protector
(attaches to FT6041)

Options		
1	SIGNAL INDUCTION CLAMP FT9847	For signal induction, Including resistance check loop
2	CLAMP ON SENSOR CT9848	For detection
3	WIRELESS ADAPTER Z3210	Bluetooth® communication will be possible by attaching to the FT6041
4	MEASUREMENT CABLE L9842-11	Yellow 10 m (32.81 ft.) long, equipped with winder
5	MEASUREMENT CABLE L9842-22	Red 20 m (65.62 ft.) long, equipped with winder
6	MEASUREMENT CABLE L9843-51	Yellow 50 m (164.04 ft.) long, equipped with flat cable winder
7	MEASUREMENT CABLE L9843-52	Red 50 m (164.04 ft.) long, equipped with flat cable winder
8	MEASUREMENT CABLE L9844	For grounding terminal board, red/yellow/black, each 1.2 m (3.94 ft.) long
9	PIN TYPE LEAD 9772	For low-resistance measurement by 4-terminal method
10	LARGE CLIP TYPE LEAD 9467	For low-resistance measurement by 4-terminal method
11	EARTH NETS 9050	2 sheets in set
12	FUSE SET Z5052	



EARTH TESTER FT6031-50

Product warranty for 3 years
Accuracy guaranteed for 1 year



Dustproof and waterproof: IP67



2-pole method Class D	3-pole method Class A to Class D	CAT IV 100 V
		CAT III 150 V
		CAT II 300 V

With Z3210

Bluetooth®
Please see www.hioki.com for list of supported regions.

Gennect Cross

Order code	FT6031-50
Order code	FT6031-90
Order code	Z3210

Basic specifications

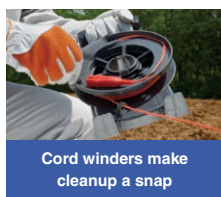
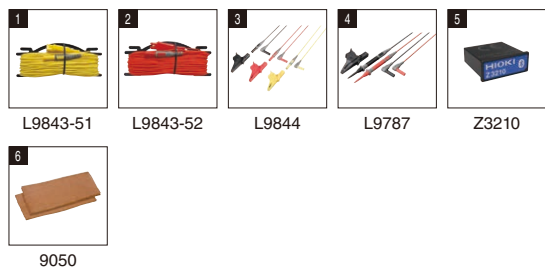
Measurement system	Two-pole method or three-pole method		
Measurement range	20 Ω (0 to 20.00 Ω)	200 Ω (0 to 200.0 Ω)	2000 Ω (0 to 2000 Ω)
Accuracy	±1.5% rdg. ±8 dgt.	±1.5% rdg. ±4 dgt.	±1.5% rdg. ±4 dgt.
Ground potential	0 to 30.0 V RMS Accuracy: ±2.3% rdg. ±8 dgt. (50/60 Hz), ±1.3% rdg. ±4 dgt. (DC)		
Allowable ground potential	25.0 V RMS (DC or sine wave)		
Operating temperature and humidity	-25°C to 65°C ¹ (non-condensing)		
Storage temperature and humidity	-25°C to 65°C (-13°F to 149°F): 80% RH or less (non-condensing)		
Dustproof and waterproof	IP65/IP67 (EN60529)		
Applicable standards	Safety: EN 61010 (main unit), EN 61010 (measuring circuit); EMC: EN 61326; earth testers: EN 61557		
Power supply	LR6 alkaline battery ×4, possible number of measurements for one set of batteries: 500 times (measurement conditions: three-pole method, measuring 10 Ω at 10-second intervals without Z3210 installed)		
Dimensions and mass	185 mm (7.28 in.) W × 111 mm (4.37 in.) H × 44 mm (1.73 in.) D, 570 g (20.1 oz.) (including batteries and protector, excluding terminal covers and other accessories)		

¹1: -25°C to 40°C, -13°F to 104°F (80% RH or less), 40°C to 45°C, 104°F to 113°F (60% RH or less), 45°C to 50°C, 113°F to 122°F (50% RH or less), 50°C to 55°C, 122°F to 131°F (40% RH or less), 55°C to 60°C, 131°F to 140°F (30% RH or less), 60°C to 65°C, 140°F to 149°F (25% RH or less)

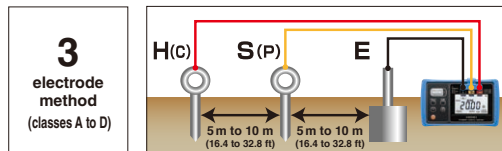
Included accessories	
1 AUXILIARY EARTHING ROD L9840	2 piece set, 270 mm (10.63 in.), Stainless steel
2 MEASUREMENT CABLE L9842-11	Yellow 10 m (32.81 ft.) length, equipped with winder
3 MEASUREMENT CABLE L9842-22	Red 20 m (65.62 ft.) length, equipped with winder
4 MEASUREMENT CABLE L9841	Black 4 m (13.12 ft.) length
5 CARRYING CASE C0106	Soft type, includes compartment for options
6 LR6 alkaline battery	6 pcs
7 Instruction manual	



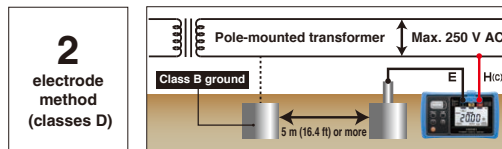
Options	
1 MEASUREMENT CABLE L9843-51	50 m (164.04 ft.)
2 MEASUREMENT CABLE L9843-52	50 m (164.04 ft.)
3 MEASUREMENT CABLE L9844	For earthing terminal board red/yellow/black 1.2 m (3.94 ft.) each
4 TEST LEAD L9787	For simplified measurement method
5 WIRELESS ADAPTER Z3210	Bluetooth® communication will be possible by attaching to the FT6031-50
6 EARTH NETS 9050	2 sheets in set



Ground types		
Type	Criterion	Locations used
Class A	10 Ω or less	Special high voltage, high voltage
Class B	As per calculations	Transformer neutral point
Class C	10 Ω or less* 500 Ω or less*	Low voltages in excess of 300 V
Class D	10 Ω or less* 500 Ω or less*	Low voltages of 300 V or less



Measurement is performed after inserting an auxiliary grounding rod into the soil. For accurate measurement, position E-S(P)-H(C) in a straight line at an interval of about 5 to 10 m.



Class D ground installations can be measured by using the Class B ground of a pole-mounted transformer. The measured value will include the resistance value of the Class B ground. The distribution panel's main ground terminal is typically connected to the power supply's ground line.

*With ground-fault interrupter that trips within 0.5 sec.

EARTH TESTER FT3151

Product warranty for 3 years
Accuracy guaranteed for 1 year



To be discontinued

Rewind with ease

2-pole method
Class D

3-pole method
Class A to Class D

CAT II 300 V

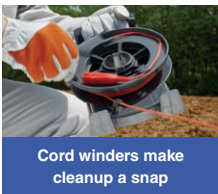


Order code **FT3151**

Basic specifications

Measurement parameters	Measurement system	Two-electrode method (Class D) Three-electrode method (Class A to D)
	Range configuration	10 Ω (0 to 11.5 Ω): ±0.25 Ω 100 Ω (0 to 115 Ω): ±2.5 Ω 1000 Ω (0 to 1150 Ω): ±25 Ω
	Accuracy	Earth potential: Accuracy 0 to 30 V: ±3.0% f.s.
	Operating temperature	0°C to 40°C, 80% RH or less (non-condensating)
Other	Storage temperature	-10°C to 50°C, 80% RH or less (non-condensating)
	Dustproof and waterproof	IP40 (EN60529)
	Standards	EN61010 (Safety, measuring circuit, probe), EN61326 (EMC), EN61557-1/-5 (Earth tester)
	Power supply	LR6 alkaline battery × 6
	Number of uses	1100 times ¹⁾
Dimensions (W × H × D)	164 × 119 × 88 mm (6.46 × 4.69 × 3.46 in.)	
Weight	760 g (26.8 oz.)	

¹⁾ 30 sec. measurement and 30 sec. rest, 3-electrode method, 575 Hz, auxiliary grounding electrode resistance of 100 Ω, measuring 10 Ω in the instrument's × 1 Ω range

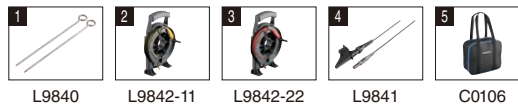


Cord winders make cleanup a snap

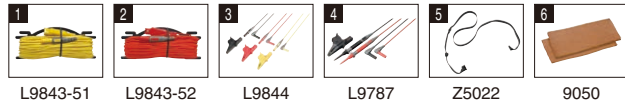


Sturdy, thin rods drive easier into the ground

Included accessories		
1	AUXILIARY EARTHING ROD L9840	2 piece set, 270 mm (10.63 in.), Stainless steel
2	MEASUREMENT CABLE L9842-11	Yellow 10 m (32.81 ft.) length, equipped with winder
3	MEASUREMENT CABLE L9842-22	Red 20 m (65.62 ft.) length, equipped with winder
4	MEASUREMENT CABLE L9841	Black 4 m (13.12 ft.) length
5	CARRYING CASE C0106	Soft type, includes compartment for options
6	LR6 alkaline battery	6 pieces
7	Instruction manual	



Options		
1	MEASUREMENT CABLE L9843-51	50 m (164.04 ft.)
2	MEASUREMENT CABLE L9843-52	50 m (164.04 ft.)
3	MEASUREMENT CABLE L9844	For earthing terminal board red/yellow/black 1.2 m (3.94 ft.) each
4	TEST LEAD L9787	For simplified measurement method
5	SHOULDER STRAP Z5022	
6	EARTH NETS 9050	2 sheets in set



CLAMP ON EARTH TESTER FT6380-50

Product warranty for 3 years
Accuracy guaranteed for 1 year



For multi-grounded systems only

Clamp-on method

Current measurement
True RMS

CAT IV 600 V



With Z3210



Please see www.hioki.com for list of supported regions.



Gennect Cross



Z3210

Order code **FT6380-50**

Order code **FT6380-90**

Order code **Z3210**

Model FT6380-90 includes Z3210 as a set

Included accessories



Carrying case

Resistance check loop

- Carrying case
- Resistance check loop (1 Ω, 25 Ω)
- Strap
- LR06 alkaline battery ×2
- Instruction manual

Basic specifications

Measurement parameters	Measurement system	Instrument has two cores for voltage injection and current measurement. Total circuit loop resistance is calculated from defined voltage and measured current. ¹⁾
	Earthing resistance range	0.20 Ω, 2.00 Ω, 20.00 Ω, 50.0 Ω, 100.0 Ω, 200.0 Ω, 400 Ω, 600 Ω, 1200 Ω, 1600 Ω Guaranteed accuracy range: 0.02 Ω to 1600 Ω Accuracy: ±1.5% rdg. ±0.02 Ω
	AC Current range	20.00 mA, 200.0 mA, 2.000 A, 20.00 A, 60.0 A Guaranteed accuracy range: 1.00 mA to 60.0 A Accuracy: ±2.0% rdg. ±0.05 mA
Other	Operating temperature	-10°C to 50°C, 80% RH or less (non-condensating)
	Storage temperature	-20°C to 60°C, 80% RH or less (non-condensating)
	Dustproof and waterproof	IP40 (EN60529) ²⁾
	Standards	EN61010 (Safety), EN61326 (EMC)
	Power supply	LR6 alkaline battery × 2 Continuous operating time 35 hours (backlight OFF)
Dimensions (W × H × D)	73 × 218 × 43 mm (2.87 × 8.58 × 1.69 in.)	
Weight	620 g (21.9 oz.)	

¹⁾ For multi-grounded systems only. In a multi-grounded system, the larger the number of grounding poles, the more accurate the measured value. ²⁾ When jaw closes

Clamp

Insulation

Tester

Detectors

Earth

Power quality

Power loggers

Battery

Logger

LAN

Lux

Temperature

Resistance



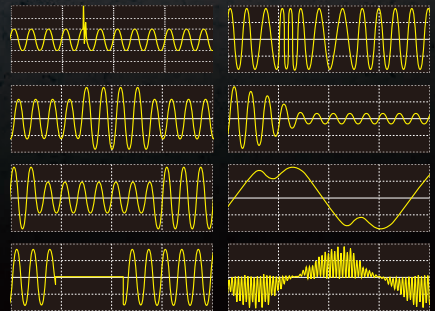
POWER QUALITY ANALYZER PQ3198, PQ3100
Monitor Power Quality and Analyze
the Cause of Equipment Issues



Power anomalies are a major cause of equipment malfunction and damage. The PQ3198 and PQ3100 detect power supply abnormalities without fail to help diagnose the cause of problems.

Capture all of these power anomalies simultaneously

- Transient voltages
- Voltage swells
- Voltage dips
- Interruptions
- Frequency fluctuations
- Inrush current
- Harmonics
- High-order harmonics (Supraharmonics)



Power Quality Analyzers

POWER QUALITY ANALYZER PQ3198, PQ3100

Product warranty for 3 years
Accuracy guaranteed for 1 year



PQ3198 (High-end model)

CAT IV 600 V



Voltage input terminals
(4 channels: channels 1/2/3 and channel 4 are isolated from each other)

Current input terminals
(4 channels)



PQ3100 (Standard model)

CAT IV 600 V, CAT III 1000 V



Voltage input terminals (4 channels)

Current input terminals (4 channels)

Shared features: Side



- 1 Power switch
- 2 AC adapter terminal
- 3 Charging indicator
- 4 Cable hook
- 5 Strap attachment point
- 6 SD card terminal
- 7 USB terminal
- 8 LAN terminal
- 9 RS-232C terminal
- 10 External I/O terminal

Model	PQ3198 (High-end model)	PQ3100 (Standard model)
Measurement lines	1-phase/2-wire, 1-phase/3-wire, 3-phase/3-wire, 3-phase/4-wire + CH 4	
Fundamental frequency	DC, 50 Hz, 60 Hz, 400 Hz	DC, 50 Hz, 60 Hz
Voltage ranges	Voltage measurement: 600.00 V rms Transient measurement: 6.0000 kV peak ±0.1% of nominal voltage	Voltage measurement: 1000.0 V rms or DC Transient measurement: 2.200 kV peak ±0.2% of nominal voltage
Current ranges	500.00 mA to 5.0000 kA AC (Depends on current sensor in use) ±0.1% rdg. ±0.1% f.s.+ current sensor accuracy	(AC) 50.000 mA to 5.0000 kA (Depends on current sensor in use) (DC) 10.000 A to 2.0000 kA (Depends on current sensor in use) ±0.1% rdg. ±0.1% f.s.+ current sensor accuracy
Power ranges	300.00 W to 3.0000 MW (AC) ±0.2% rdg. ±0.1% f.s.+ current sensor accuracy (DC) ±0.5% rdg. ±0.5% f.s.+ current sensor accuracy (CH4 Only)	50.000 W to 6.0000 MW (AC) ±0.2% rdg. ±0.1% f.s.+ current sensor accuracy (DC) ±0.5% rdg. ±0.5% f.s.+ current sensor accuracy
Measurement parameters	1. Transient voltage: 2MHz sampling 2. Frequency cycle: calculated as one cycle 3. Voltage (1/2) RMS: one cycle calculation refreshed every half cycle Current (1/2) RMS: half-cycle calculation 4. Voltage swell, voltage dips, voltage interruption 5. Inrush current 6. Voltage waveform comparison 7. Instantaneous flicker value: As per IEC61000-4-15 8. 200 ms frequency: calculated as 10 or 12 cycles, 40 to 70 Hz 9. 10 sec frequency: calculated as the whole-cycle time during the specified 10 s period, 40 to 70 Hz 10. Voltage waveform peak, Current waveform peak 11. Voltage, current, active power, apparent power, reactive power, active energy, reactive energy, power factor, displacement power factor, voltage unbalance factor, current unbalance factor, and efficiency 12. High-order harmonic (Supraharmonic) component (voltage/current): 2 kHz to 80 kHz 13. Harmonic value and Harmonic phase angle (voltage/current), harmonic power: 0th to 50th orders 14. Harmonic voltage-current phase angle: 1st to 50th orders 15. Total harmonic distortion factor (voltage/current) 16. Inter harmonic (voltage/current): 0.5th to 49.5th order 17. K Factor (multiplication factor) 18. IEC Flicker, Δ V10 Flicker	1. Transient voltage: 200 kHz sampling 2. Frequency cycle: calculated as one cycle 3. Voltage (1/2) RMS and Current (1/2) RMS: one cycle calculation refreshed every half cycle 4. Voltage swell, voltage dips, voltage interruption, RVC: Voltage (1/2) RMS calculation 5. Inrush current 6. Frequency 200 ms: calculated as 10 or 12 cycles 7. 10-sec frequency: calculated as the whole-cycle time during the specified 10 s period 8. Voltage waveform peak, current waveform peak 9. Voltage, current, active power, apparent power, reactive power, active energy, apparent energy, reactive energy, energy cost, power factor, displacement power factor, voltage unbalance factor, current unbalance factor 10. Voltage crest factor, current crest factor 11. Harmonic/Harmonic phase angle (voltage/current), harmonic power: 0th to 50th orders 12. Harmonic voltage-current phase angle: 1st to 50th orders 13. Total harmonic distortion factor (voltage/current) 14. Inter harmonic (voltage/current): 0.5th to 49.5th orders 15. K Factor (multiplication factor) 16. IEC Flicker, Δ V10 Flicker
	Measurement items	
Record	Repeated ON: 1 year, maximum recording event: 9999 × 366 days (up to 9999 events per day) Repeated off: 35 days, maximum recording event: 9999 events	Maximum recording interval: 1 year, maximum number of recordable events: 9999 × 365 days
Setup assistance	Simplified setup function	QUICK SET (navigation-style assistance from connecting the instrument to the start of recording)
Interfaces	SD/SDHC memory card (Use only SD cards sold by HIOKI. Compatibility and performance are not guaranteed for SD cards made by other manufacturers.), RS-232C, USB2.0, LAN	
Operating temperature	0°C to 30°C (95% RH or less), 30°C to 50°C (80% RH or less) (non-condensating)	-20°C to 50°C (80% RH or less) (non-condensating)
Storage temperature	10°C greater than operating temperature and humidity range	
Standards	EN61010 (Safety), EN61326 Class A (EMC)	
IEC 61000-4-30	Class A	Class S
Power supply	AC ADAPTER Z1002, BATTERY PACK Z1003	
Battery operating time	3 hours	8 hours
Dimensions (W × H × D)	300 × 211 × 68 mm (11.81 × 8.31 × 2.68 in.)	
Weight	2.6 kg (91.7 oz.) (including BATTERY PACK)	



L1000 L1000-05 Z1002 Z1003 Z4001

PQ3198 Included accessories

- VOLTAGE CORD L1000
- AC ADAPTER Z1002
- BATTERY PACK Z1003
- SD MEMORY CARD Z4001
- USB cable
- Color clips
- Spiral tubes
- Strap
- Measurement guide
- User manual

PQ3100 Included accessories

- VOLTAGE CORD L1000-05
- AC ADAPTER Z1002
- BATTERY PACK Z1003
- USB cable
- Color clips
- Spiral tubes
- Strap
- Measurement guide
- User manual

Order code **PQ3198**

Order code **PQ3198-92** Value Kits: PQ3198, CT7136 (600A) × 4, L1021-02×3, CARRYING CASE C1009

Order code **PQ3198-94** Value Kits: PQ3198, CT7045 (6000A) × 4, L1021-02×3, CARRYING CASE C1009

Order code **PQ3100**

Order code **PQ3100-91** Value Kits: PQ3100, CT7136 (600A) × 2, SD MEMORY CARD 2GB Z4001, CARRYING CASE C1009

Order code **PQ3100-92** Value Kits: PQ3100, CT7136 (600A) × 4, SD MEMORY CARD 2GB Z4001, CARRYING CASE C1009

Order code **PQ3100-94** Value Kits: PQ3100, CT7045 (6000A) × 4, SD MEMORY CARD 2GB Z4001, CARRYING CASE C1009

*For more detailed information on CT7136, CT7045, and options, please refer to p.48.

Clamp
Insulation
Tester
Detectors
Earth
Power quality
Power loggers
Battery
Logger
LAN
Lux
Temperature
Resistance



CLAMP ON POWER LOGGER PW3365, PW3360

Accurately Measure Power Consumption, also Available with Non-contact Voltage Sensor for Added Safety

SAFETY VOLTAGE SENSOR PW9020
(for PW3365 only)

- Clamp on top of cable insulation
- Quick setup
- Safely avoid contact/with live parts



Compared with standard alligator clips that are hard to use and require metal-to-metal contact



Toggle displays to easily verify data



List display



Waveform

Demand Graph

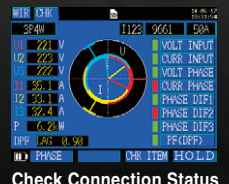


Trend Graph

QUICK SET navigation



Highly Intuitive

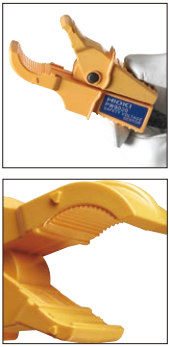


Check Connection Status

Power Loggers

CLAMP ON POWER LOGGER PW3365, PW3360

Product warranty for 3 years
Accuracy guaranteed for 1 year **CE**



PW3365



PW3360

SAFETY VOLTAGE SENSOR PW9020
Compatible with PW3365 only
Finished outer diameter
Φ6 mm (0.24 in.) to Φ30 mm (1.18 in.)

CAT IV 300 V, CAT III 600 V



CAT IV 300 V, CAT III 600 V



Model	PW3365 + PW9020	PW3360	
Measurement line	1-phase/2-wire (1/2/3 circuits), 1-phase/3-wire (1 circuit), 3-phase/3-wire (1 circuit), 3-phase/4-wire (1 circuit), Current only: 1 to 3 channels		
Frequency	50 Hz/60 Hz		
Voltage ranges	400 V AC (Effective measurement range: 90.0 V to 520.0 V)	600 V AC (Effective measurement range: 90.0 V to 780.0 V)	
Accuracy	±1.5% rdg. ±0.2% f.s. (combined accuracy with PW9020)	±0.3% rdg. ±0.1% f.s.	
Current ranges	500.00 mA AC to 5.0000 kA ¹ (Leak clamp on sensor only: 50.0000 mA AC to 5.0000 A)		
Accuracy	±0.3% rdg. ±0.1% f.s. + current sensor accuracy		
Power ranges	200.00 W to 6.0000 MW	300.00 W to 9.0000 MW	
Accuracy	±2.0% rdg. ±0.3% f.s. + current sensor accuracy		
Measurement items	Voltage	RMS value, fundamental wave value, waveform peak (absolute value), fundamental wave phase angle, frequency (U1)	
	Current	RMS value, fundamental wave value, waveform peak (absolute value), fundamental wave phase angle	
	Power	Active power, reactive power, apparent power, power factor, (with lag, lead display) or displacement power factor (with lag, lead display), active energy (consumption, regeneration), reactive energy (lag, lead) Energy cost display (per-kWh price × power consumption)	
	Demand	Active power demand value (consumption, regeneration), reactive power demand value (lag, lead), Active power demand quantity (consumption, regeneration), reactive power demand quantity (lag, lead), power factor demand value	
	Harmonics	Harmonic voltage, harmonic current, voltage total harmonic distortion (THD-F or THD-R), current total harmonic distortion (THD-F or THD-R), up to the 13th order	PW3360-21 Only: Harmonic voltage, current, power level, content, phase angle, total harmonic distortion factor (THD-F or THD-R), up to the 40th order
	Pulse input	N / A	✓
Data save interval	1 sec to 30 sec, 1 minute to 60 minutes, 14 selections		
Interfaces	SD/ SDHC memory card ² , LAN, USB2.0, FTP		
Operating temperature	0°C to 50°C, 80% RH or less (non-condensating)	-10°C to 50°C, 80% RH or less (non-condensating)	
Storage temperature	-10°C to 60°C, 80% RH or less (non-condensating)	-20°C to 60°C, 80% RH or less (non-condensating)	
Standards	EN61010 (Safety), EN61326 (EMC)		
Power supply	AC ADAPTER Z1008, BATTERY PACK 9459	AC ADAPTER Z1006, BATTERY PACK 9459	
Battery operating time	3 hours	5 hours	
Dimensions (W × H × D)	180 × 100 × 68 mm (7.09 × 3.94 × 2.68 in.) (with PW9002)	180 × 100 × 67.2 mm (7.09 × 3.94 × 2.65 in.) (with PW9002)	
Weight	820 g (28.9 oz.) (with PW9002)	830 g (29.3 oz.) (with PW9002)	

SAFETY VOLTAGE SENSOR PW9020 Specifications	
Compatible conductor types	Insulated wires ³ (indoor PVC) or metal parts
Compatible conductor diameters	Finished outer diameter Φ6 mm to Φ30 mm (Φ0.24 in. to Φ1.18 in.)
Effective measurement range	90 V to 520 V
Safety standard category	CAT IV 300 V/CAT III 600 V
Operating temperature	0°C to 50°C, 80% RH or less (non-condensating)
Storage temperature	-10°C to 60°C, 80% RH or less (non-condensating)
Standards	EN61010 (Safety), EN61326 (EMC)
Cord length	3 m (9.84 ft.)
Weight	220 g (7.8 oz.)

¹ Depends on current sensor in use. For more detailed information on sensors, please refer to p.49.
² Use only SD Cards sold by HIOKI. Compatibility and performance are not guaranteed for PC cards made by other manufacturers.
³ Shielded wires cannot be measured. The product may not be able to accurately measure multicore cables or cables that have thick insulation.



PW3360 Included accessories

- VOLTAGE CORD L9438-53 (black, red, yellow, blue @ 1 each)
- AC ADAPTER Z1006
- USB cable 0.9 m (2.95 ft.)
- Instruction manual, Measurement guide
- Color clips (red, blue, yellow, white @ 2 each)
- Spiral tubes × 5

PW3365 Included accessories

- SAFETY VOLTAGE SENSOR PW9020 ×4
- AC ADAPTER Z1008
- USB cable 0.9 m (2.95 ft.)
- Instruction manual, Measurement guide
- Color clips (red, blue, yellow, white @ 4 each)
- Spiral tubes × 10

Order code **PW3365-20**

Order code **PW3360-20**

Order code **PW3360-21 with harmonic analysis function**

Clamp
Insulation
Tester
Detectors
Earth
Power quality
Power loggers
Battery
Logger
LAN
Lux
Temperature
Resistance

Options

For PQ3198, PQ3100			
Voltage	1	VOLTAGE CORD L1000	Red/ Yellow/ Blue/Gray @ 1 each, Black x 4, 3 m (9.84 ft.) , Alligator clip x 8
	2	VOLTAGE CORD L1000-05	Red/ Yellow/ Blue/Gray/Black @ 1 each 1, 3 m (9.84 ft.) , Alligator clip x 5
	3	MAGNETIC ADAPTER 9804-01	Red, Alternative tip for the L1000, L1000-05
	4	MAGNETIC ADAPTER 9804-02	Black, Alternative tip for the L1000, L1000-05
	5	GRABBER CLIP L9243	Alternative tip for the L1000, L1000-05
	6	PATCH CORD L1021-01	Only for PQ3198, 0.5 m (1.64 ft.) , Red, Banana branch-banana
	7	PATCH CORD L1021-02	Only for PQ3198, 0.5 m (1.64 ft.) , Black, Banana branch-banana
Record	8	SD MEMORY CARD 2GB Z4001	Use only SD Cards sold by HIOKI. Compatibility and performance are not guaranteed for PC cards made by other manufacturers.
	9	SD MEMORY CARD 8GB Z4003	
Communication	10	RS-232C CABLE 9637	For PQ3100, pin - 9 pin, cross, 1.8 m (5.91 ft.)
	11	LAN CABLE 9642	5 m (16.4 ft.) , Straight, Cross conversion adapter
Power supply	12	AC ADAPTER Z1002	100 V AC to 240 V AC
	13	BATTERY PACK Z1003	7.2 V, Ni-MH
Connection	14	WIRING ADAPTER PW9000	For PQ3198, for 3-phase/3-wire connection
	15	WIRING ADAPTER PW9001	For PQ3198, for 3-phase/4-wire connection
	16	GPS BOX PW9005	For PQ3198
Other	17	CARRYING CASE C1009	Bag type
	18	CARRYING CASE C1002	Hard trunk type
	19	MAGNETIC STRAP Z5004	
	20	MAGNETIC STRAP Z5020	Extra strength



Product warranty for 3 years
Accuracy guaranteed for 1 year



CURRENT SENSOR FOR PQ3198, PQ3100

Features	Make measurements over extended period of time without zero-adjustment, even in locations with temperature variations			AC/DC current sensors for observing instantaneous waveforms		
Model name	AC/DC AUTO-ZERO CURRENT SENSOR			AC/DC CURRENT SENSOR		
Model	CT7731	CT7736	CT7742	CT7631	CT7636	CT7642
Appearance						
Rated measurement current	100 A AC/DC	600 A AC/DC	2000 A AC/DC	100 A AC/DC	600 A AC/DC	2000 A AC/DC
Max. allowable peak input	150 A peak	900 A peak	2840 A peak	150 A peak	900 A peak	2840 A peak
Bandwidth	DC to 5 kHz (-3dB)	DC to 5 kHz (-3dB)	DC to 5 kHz (-3dB)	DC to 10 kHz (-3dB)	DC to 10 kHz (-3dB)	DC to 10 kHz (-3dB)
Amplitude accuracy (DC, 45 to 66 Hz)	±1.0% rdg. ±0.5% f.s.	±2.0% rdg. ±0.5% f.s.	±1.5% rdg. ±0.5% f.s.	±1.0% rdg. ±0.5% f.s.	±2.0% rdg. ±0.5% f.s.	±1.5% rdg. ±0.5% f.s.
Output rate	1 mV/A	1 mV/A	0.1 mV/A	1 mV/A	1 mV/A	0.1 mV/A
Max. rated voltage to earth	(AC/DC) CAT IV 600 V	(AC/DC) CAT IV 600 V, CAT III 1000 V	(AC/DC) CAT IV 600 V, CAT III 1000 V	(AC/DC) CAT IV 600 V	(AC/DC) CAT IV 600 V, CAT III 1000 V	(AC/DC) CAT IV 600 V, CAT III 1000 V
Operating temperature	-25°C to 65°C	-25°C to 65°C	-25°C to 65°C	-25°C to 65°C	-25°C to 65°C	-25°C to 65°C
Core jaw diameter	Φ33 mm or less	Φ33 mm or less	Φ55 mm or less	Φ33 mm or less	Φ33 mm or less	Φ55 mm or less

Features	Attaches easily to thick cables, even in confined spaces			For accurately measuring load current			For measuring leakage current
Model name	AC FLEXIBLE CURRENT SENSOR			AC CURRENT SENSOR			AC LEAKAGE CURRENT SENSOR
Model	CT7044	CT7045	CT7046	CT7126	CT7131	CT7136	CT7116
Appearance							
Rated measurement current	6000 A AC	6000 A AC	6000 A AC	60 A AC	100 A AC	600 A AC	6 A AC
Max. allowable peak input	15000 A peak	15000 A peak	15000 A peak	100 A peak	200 A peak	900 A peak	30 A peak
Bandwidth	10 to 50 kHz (within ±3 dB)	10 to 50 kHz (within ±3 dB)	10 to 50 kHz (within ±3 dB)	40 to 20 kHz	40 to 20 kHz	40 to 20 kHz	40 to 5 kHz
Amplitude accuracy (45 to 66 Hz)	±1.5% rdg. ±0.25% f.s.*	±1.5% rdg. ±0.25% f.s.*	±1.5% rdg. ±0.25% f.s.*	±0.3% rdg. ±0.01% f.s.	±0.3% rdg. ±0.02% f.s.	±0.3% rdg. ±0.01% f.s.	±1.0% rdg. ±0.05% f.s.
Output rate	1 mV/A (600 A) 0.1 mV/A (6000 A)	1 mV/A (600 A) 0.1 mV/A (6000 A)	1 mV/A (600 A) 0.1 mV/A (6000 A)	10 mV/A	1 mV/A	1 mV/A	100 mV/A
Max. rated voltage to earth	(AC) CAT IV 600 V, CAT III 1000 V	(AC) CAT IV 600 V, CAT III 1000 V	(AC) CAT IV 600 V, CAT III 1000 V	(AC) CAT III 300 V	(AC) CAT III 300 V	(AC) CAT IV 600 V, CAT III 1000 V	Insulated conductor
Operating temperature	-25°C to 65°C	-25°C to 65°C	-25°C to 65°C	-10°C to 50°C	-10°C to 50°C	-10°C to 50°C	-25°C to 65°C
Core jaw diameter	Φ100 mm or less	Φ180 mm or less	Φ254 mm or less	Φ15 mm or less	Φ46 mm or less	Φ40 mm or less	Φ40 mm or less

*At center of flexible loop

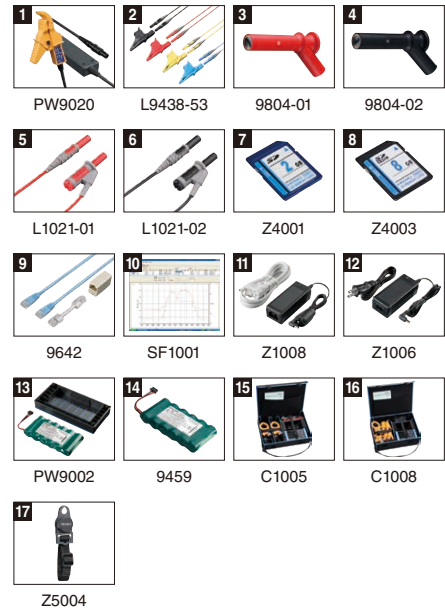
1	EXTENSION CABLE L0220-01	2 m (6.56 ft.) , for PL14 connectors
2	EXTENSION CABLE L0220-02	5 m (16.4 ft.) , for PL14 connectors
3	EXTENSION CABLE L0220-03	10 m (32.81 ft.) , for PL14 connectors
4	EXTENSION CABLE L0220-04	20 m (65.62 ft.) , for PL14 connectors
5	EXTENSION CABLE L0220-05	30 m (98.43 ft.) , for PL14 connectors
6	EXTENSION CABLE L0220-06	50 m (164.04 ft.) , for PL14 connectors
7	EXTENSION CABLE L0220-07	100 m (328.08 ft.) , for PL14 connectors



L0220

Options

For PW3365, PW3360		
Voltage	1	SAFETY VOLTAGE SENSOR PW9020 For PW3365, 3 m (9.84 ft.)
	2	VOLTAGE CORD L9438-53 For PW3360, Black/ Red/ Yellow/ Blue, 3 m (9.84 ft.) length, Alligator clip x 4
	3	MAGNETIC ADAPTER 9804-01 For PW3360, Red, Φ 11 mm (0.43 in.)
	4	MAGNETIC ADAPTER 9804-02 For PW3360, Black, Φ 11 mm (0.43 in.)
Record	5	PATCH CORD L1021-01 For PW3360, 0.5 m (1.64 ft.), Red, Banana branch-banana
	6	PATCH CORD L1021-02 For PW3360, 0.5 m (1.64 ft.), Black, Banana branch-banana
Communication	7	SD MEMORY CARD 2GB Z4001 Use only SD Cards sold by HIOKI. Compatibility and performance are not guaranteed for PC cards made by other manufacturers.
	8	SD MEMORY CARD 8GB Z4003
Power supply	9	LAN CABLE 9642 5 m (16.4 ft.), Straight, Cross conversion adapter
	10	POWER LOGGER VIEWER SF1001 Software to analyze measurement data
	11	AC ADAPTER Z1008 For PW3365, 100V AC to 240V
	12	AC ADAPTER Z1006 For PW3360, 100V AC to 240V
Other	13	BATTERY SET PW9002 Battery case and 9459 Set
	14	BATTERY PACK 9459
	15	CARRYING CASE C1005
	16	CARRYING CASE C1008 For PW3365
	17	MAGNETIC STRAP Z5004



Product warranty for 3 years
Accuracy guaranteed for 1 year



CURRENT SENSOR for PW3365, PW3360

Features	For load current levels: Voltage output					
	CLAMP ON SENSOR					
Model name	9694	9660	9661	9669	9695-02	9695-03
Model						
Appearance						
Rated measurement current	5 A AC	100 A AC	500 A AC	1000 A AC	50 A AC	100 A AC
Output rate	10 mV/A	1 mV/A	1 mV/A	0.5 mV/A	10 mV/A	1 mV/A
Amplitude accuracy (45 to 66 Hz)	$\pm 0.3\%$ rdg. $\pm 0.02\%$ f.s.	$\pm 0.3\%$ rdg. $\pm 0.02\%$ f.s.	$\pm 0.3\%$ rdg. $\pm 0.01\%$ f.s.	$\pm 1.0\%$ rdg. $\pm 0.01\%$ f.s.	$\pm 0.3\%$ rdg. $\pm 0.02\%$ f.s.	$\pm 0.3\%$ rdg. $\pm 0.02\%$ f.s.
Max. rated voltage to earth	(AC) CAT III 300 V	(AC) CAT III 300 V	(AC) CAT III 600 V	(AC) CAT III 600 V	(AC) CAT III 300 V	(AC) CAT III 300 V
Operating temperature	0°C to 50°C	0°C to 50°C	0°C to 50°C	0°C to 50°C	0°C to 50°C	0°C to 50°C
Core jaw diameter	Φ 15 mm or less	Φ 15 mm or less	Φ 46 mm or less	Φ 55 mm or less 80x20 mm busbar	Φ 15 mm or less	Φ 15 mm or less

Features	For load current levels: Voltage output			For leak current: Voltage output	
	AC FLEXIBLE CURRENT SENSOR			CLAMP ON LEAK SENSOR	
Model name	CT9667-01	CT9667-02	CT9667-03	9657-10	9675
Model					
Appearance					
Rated measurement current	5000 A AC/500 A AC	5000 A AC/500 A AC	5000 A AC/500 A AC	10 A AC	10 A AC
Output rate	0.1 mV/A (5000 A) 1 mV/A (500 A)	0.1 mV/A (5000 A) 1 mV/A (500 A)	0.1 mV/A (5000 A) 1 mV/A (500 A)	100 mV/A	100 mV/A
Amplitude accuracy (45 to 66 Hz)	$\pm 2\%$ rdg. $\pm 0.3\%$ f.s.*	$\pm 2\%$ rdg. $\pm 0.3\%$ f.s.*	$\pm 2\%$ rdg. $\pm 0.3\%$ f.s.*	$\pm 1.0\%$ rdg. $\pm 0.05\%$ f.s.	$\pm 1.0\%$ rdg. $\pm 0.005\%$ f.s.
Max. rated voltage to earth	(AC) CAT IV 600 V (AC) CAT III 1000 V	(AC) CAT IV 600 V (AC) CAT III 1000 V	(AC) CAT IV 600 V (AC) CAT III 1000 V	Insulated conductor	Insulated conductor
Operating temperature	-25°C to 65°C	-25°C to 65°C	-10°C to 50°C	0°C to 50°C	0°C to 50°C
Core jaw diameter	Φ 100 mm or less	Φ 180 mm or less	Φ 254 mm or less	Φ 40 mm or less	Φ 30 mm or less

*At center of flexible loop

1	EXTENSION CABLE L0220-01	2 m (6.56 ft.), for PL14 connectors
2	EXTENSION CABLE L0220-02	5 m (16.4 ft.), for PL14 connectors
3	EXTENSION CABLE L0220-03	10 m (32.81 ft.), for PL14 connectors
4	EXTENSION CABLE L0220-04	20 m (65.62 ft.), for PL14 connectors
5	EXTENSION CABLE L0220-05	30 m (98.43 ft.), for PL14 connectors
6	EXTENSION CABLE L0220-06	50 m (164.04 ft.), for PL14 connectors
7	EXTENSION CABLE L0220-07	100 m (328.08 ft.), for PL14 connectors
8	CONNECTION CABLE 9219	For 9695, 3 m (9.84 ft.)
9	AC ADAPTER 9445-02	For CT9667
10	CONVERSION CABLE L9910	To convert output connector: BNC to PL 14



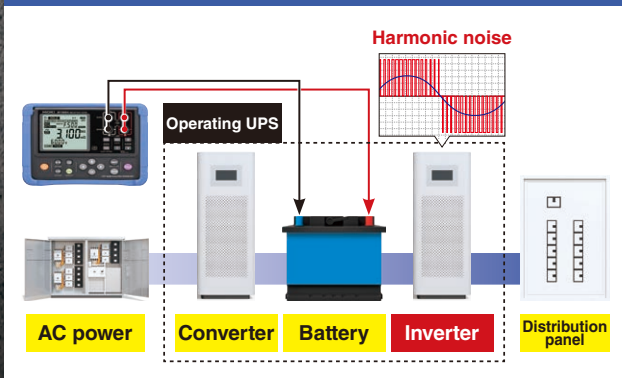
Clamp
Insulation
Tester
Detectors
Earth
Power quality
Power loggers
Battery
Logger
LAN
Lux
Temperature
Resistance



BATTERY TESTER BT3554-50, BT3554-51, BT3554-52

Properly Diagnose Deterioration of UPS Lead-acid Batteries even Under Noisy Environments

Tough against inverter noise during UPS startup



Completing an intensive inspection workload efficiently


The app provides audio guidance about the battery measurement sequence. And, automatically saves the measurement results.

The app interface includes a **Measurement Record Guide** with fields for Profile No., Location (e.g., Floor 1F UPS ROOM), Device (e.g., UPS 1-1), Next Measurement Record Battery No., Battery No., Memory No., and Memory No. A **GENNECT Cross** logo is visible in the top right corner.

Additional features shown include a **Z3210** device icon, a sequence of numbers **1 2 3 4 5 ... 500**, and a **Guide Stop** button.

BATTERY TESTERS

BATTERY TESTER BT3554-50, BT3554-51, BT3554-52

Product warranty for 3 years
Accuracy guaranteed for 1 year 



WIRELESS ADAPTER Z3210 (options): Attach to enable Bluetooth® wireless technology

BT3554-50: Instrument only

With Z3210

 **Bluetooth®**
Please see www.hioki.com for list of supported regions.



BT3554-51: with 9465-10

With Z3210

 **Bluetooth®**
Please see www.hioki.com for list of supported regions.



BT3554-52: with L2020

With Z3210

 **Bluetooth®**
Please see www.hioki.com for list of supported regions.



Included accessories

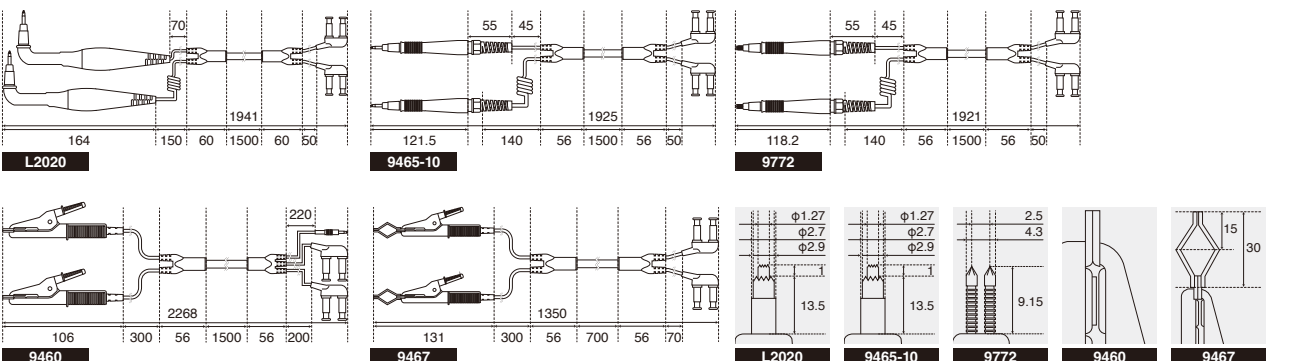
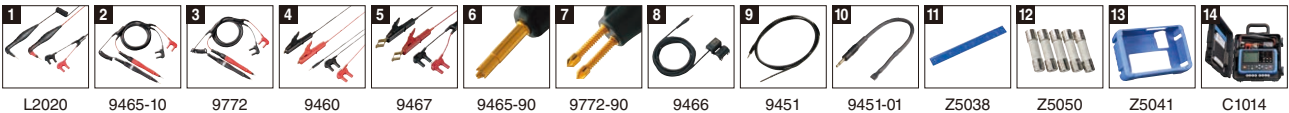
- PIN TYPE LEAD 9465-10 (BT3554-51 only)
- PIN TYPE LEAD L2020 (BT3554-51 only)
- Carrying Case C1014
- Protector Z5041
- Fuse Set Z5050
- ZERO ADJUSTMENT BOARD
- Neck strap
- USB cable
- Alkaline battery LR6 × 8
- Instruction manual

Order code	BT3554-50	Instrument only
Order code	BT3554-51	With 9465-10
Order code	BT3554-52	With L2020
Order code	BT3554-91	With 9465-10, Z3210
Order code	BT3554-92	With L2020, Z3210
Order code	Z3210	

Options		
1	PIN TYPE LEAD L2020	
2	PIN TYPE LEAD 9465-10	
3	PIN TYPE LEAD 9772	
4	CLIP TYPE LEAD WITH TEMPERATURE SENSOR 9460	
5	LARGE CLIP TYPE LEAD 9467	
6	TIP PIN 9465-90	For L2020, 9465-90
7	TIP PIN 9772-90	For 9772
8	REMOTE CONTROL SWITCH 9466	2 m (6.56 ft.)
9	TEMPERATURE PROBE 9451	
10	TEMPERATURE PROBE 9451-01	
11	0 ADJ BOARD Z5038	
12	FUSE SET Z5050	This contains 5 pieces
13	PROTECTOR Z5041	
14	CARRYING CASE C1014	

Measurement parameters		Internal resistance measurement for batteries (AC four-terminal method) Terminal voltage measurement for batteries (DC voltage) Temperature measurement (when using the 9460)
Measurement	Resistance	3 mΩ (Max. display: 3.100 mΩ, Resolution: 1 μΩ) 30 mΩ (31.00 mΩ, 10 μΩ) 300 mΩ (310.0 mΩ, 100 μΩ) 3 Ω (3.100 Ω, 1 mΩ) Accuracy: ±0.8% rdg. ±6 dgt.
	Current	160 mA (3 mΩ, 30 mΩ range) 16 mA (300 mΩ range) 1.6 mA (3 Ω range)
	Measurement frequency	1 kHz ±30 Hz (with function for avoiding noise frequency enabled: 1 kHz ±80 Hz)
	Voltage	6.000 V, 60.00 V Accuracy: ±0.08% rdg. ±6 dgt.
	Temperature	-10.0°C to 60.0°C Accuracy: ±1.0°C
Other	Function	<ul style="list-style-type: none"> • Memory function (up to 6000 data) • Auto memory function • Auto-hold function • Measurement Navigator (When using Z3210, Gennect Cross: Voice guide output) • Tablet app (Gennect Cross) • PC app (Gennect One) • Comparator function (PASS/ WARNING/ FAIL) • Excel® Direct Input function (When using Z3210)
	Interfaces	USB2.0
	Operating temperature	0°C to 40°C, 80% RH or less (non-condensating)
	Storage temperature	-10°C to 50°C, 80% RH or less (non-condensating)
	Standards	EN61010 (Safety), EN61326 (EMC)
	Power supply	LR6 alkaline battery × 8
	Continuous operating time	8.5 hours
	Dimensions (W × H × D)	199 × 132 × 60.6 mm (7.83 × 5.20 × 2.39 in.)
	Weight	960 g (33.8 oz.)

The thresholds for determining the pass/fail condition of a battery depend on the specifications and standards of the battery manufacturer, battery type, capacity, etc. It is important and necessary to always conduct battery testing against the internal resistance and terminal voltage of a new or reference battery. In some cases, it may be difficult to determine the deterioration state of traditional open type (liquid) lead-acid or alkaline batteries, which demonstrate smaller changes in internal resistance than sealed lead acid batteries.



Clamp
Insulation
Tester
Detectors
Earth
Power quality
Power loggers
Battery
Logger
LAN
Lux
Temperature
Resistance

Compact Data Loggers

BATTERY TESTER BT3554-50, BT3554-51, BT3554-52

Product warranty for 3 years
Accuracy guaranteed for 1 year



Make Logger Settings and Transfer Data via Bluetooth® Wireless Communication

Use your tablet or PC to download data and configure measurement conditions



Model	WIRELESS PULSE LOGGER LR8512	WIRELESS CLAMP LOGGER LR8513	WIRELESS HUMIDITY LOGGER LR8514	WIRELESS VOLTAGE/TEMP LOGGER LR8515
Log	Pulse	Load Current, Leak Current	Temperature, Humidity	DCV, Temperature
Appearance				
Channels	2ch	2ch	2ch (temperature), 2ch (humidity)	2ch
Measurement range	Pulse: 0 to 1000M pulse No. of revolutions: 0 to 5000/n ¹ [r/s]	500.0 mA to 5000 A AC ² 10.00 A to 2000 A DC ²	-40.0°C to 80.0°C (temperature) 0.0% rh to 100% RH (humidity)	Voltage: -50 V to 50 V Thermocouple (K): -200°C to 999.9°C Thermocouple (T): -200°C to 400°C
Accuracy	-	±0.5% rdg. ±5 dgt.	Temperature: ±0.5°C Humidity: ±3% RH ³	Voltage: ±0.05 mV Thermocouple: ±0.6°C
Bundled sensor	CONNECTION CABLE L1010	Sensor sold separately	Sensor sold separately	Sensor sold separately

¹n is the number of pulses, 1 to 1000, per revolution. ²Depends on current sensor in use ³Hysteresis: ±1% rh (added to the humidity measurement accuracy).

LR8512, LR8513, LR8514, LR8515 Common Specifications

Measurement	Recording intervals	0.1 ¹ /0.2 ¹ /0.5/1/2/5/10/20/30 sec., 1/2/5/10/20/30/60 min.
	Recording modes	Instantaneous value, MAX/MIN/AVG (LR8513 only)
	Communication reaches	30 m, line of sight
	Storage capacity	500,000 data sets per channel
	Operating temperature	-20°C to 60°C, 80% RH or less
Other	Power supply	LR6 alkaline battery × 2 AC ADAPTER Z2003 (option, DC12V)
	Continuous operating time ²	LR8512: 2 months (1min. recording interval), 2 months (1sec.) LR8513: 3 months (1min. recording interval), 1 month (1sec.) LR8514: 3.5 months (1min. recording interval), 3 months (1sec.) LR8515: 2.5 months (1min. recording interval), 10 days (1sec.)
	Dimensions (W × H × D)	LR8512, LR8514: 85 × 61 × 31 mm (3.35 × 2.40 × 1.22 in.) LR8513, LR8515: 85 × 75 × 38 mm (3.35 × 2.95 × 1.50 in.)
	Weight	LR8512, LR8514: 95 g (3.4 oz.), LR8513: 130 g (4.6 oz.), LR8515: 126 g (4.4 oz.)

¹LR8512, LR8515 only ²With Bluetooth® communication OFF

Included accessories for LR8512, LR8513, LR8514, LR8515

- LR6 alkaline battery × 2
- Measurement Guide, Caution for Using Radio Waves

Order code **LR8512** CONNECTION CABLE L1010 × 2

Order code **LR8513** -

Order code **LR8514** -

Order code **LR8515** -

Wireless Logger Collector (for collecting measurement data)

Supported devices	Android tablet, Android smartphone Windows PC
OS	Android OS 4.0.3 or later Windows 11/10
Number of available registrations	Max. 100 units
Output format	Logger Utility format LR5000 format Smart Site compatible format CSV format Text format

How to obtain software

For Windows PC: download from the HIOKI website
For Android tablet: Google Play™

Use Logger Utility to view data acquired by the Wireless Logger Collector

Logger Utility

- Display waveform
- Analyze measurement data

Options

WIRELESS PULSE LOGGER LR8512		
1 CONNECTION CABLE L1010	1.5 m (4.92 ft.)	
WIRELESS HUMIDITY LOGGER LR8514		
2 HUMIDITY SENSOR Z2010	50 mm (1.97 in.)	
3 HUMIDITY SENSOR Z2011	1.5 m (4.92 ft.)	
WIRELESS LOGGER Series LR8512, LR8513, LR8514, LR8515		
4 AC ADAPTER Z2003	100 V to 240 V AC	
5 MAGNETIC STRAP Z5004		
6 MAGNETIC STRAP Z5020	Extra strength	



¹ At center of flexible loop ² Maximum measurable current when used with the LR8513

CURRENT SENSORS (For LR8513)

Measurement application	For load current levels: Voltage output					
Model name	CLAMP ON SENSOR			AC FLEXIBLE CURRENT SENSOR		
Model	9669	9695-02	CT6500	CT9667-01	CT9667-02	CT9667-03
Appearance		 Requires the 9219 Not CE marked				
Rated measurement current	1000 A AC	50 A AC	500 A AC	5000/500 A AC	5000/500 A AC	5000/500 A AC
Output rate	0.5 mV/A	10 mV/A	1 mV/A AC	0.1 mV/A (5000 A) 1 mV/A (500 A)	0.1 mV/A (5000 A) 1 mV/A (500 A)	0.1 mV/A (5000 A) 1 mV/A (500 A)
Amplitude accuracy (DC, 45 to 66 Hz)	±1.0% rdg. ±0.01% f.s.	±0.3% rdg. ±0.02% f.s.	±1.5% rdg. ±0.03% f.s.	±2% rdg. ±0.3% f.s. ¹	±2% rdg. ±0.3% f.s. ¹	±2% rdg. ±0.3% f.s. ¹
Max. rated voltage to earth	CAT III 600 V	CAT III 300 V	CAT III 600 V	CAT IV 600 V CAT III 1000 V	CAT IV 600 V CAT III 1000 V	CAT IV 600 V CAT III 100 V
Operating temperature	0°C to 50°C	0°C to 50°C	0°C to 50°C	-25°C to 65°C	-25°C to 65°C	-10°C to 50°C
Core jaw diameter	Φ55 mm or less 80 × 20 mm busbar	Φ15 mm or less	Φ46 mm or less	Φ100 mm or less	Φ180 mm or less	Φ254 mm or less

Measurement application	For leak current: Voltage output	
Model name	CLAMP ON LEAK SENSOR	
Model	9657-10	9675
Appearance		
Rated measurement current	5 A AC ²	5 A AC ²
Output rate	100 mV/A	100 mV/A
Amplitude accuracy (DC, 45 to 66 Hz)	±1.0% rdg. ±0.05% f.s.	±1.0% rdg. ±0.005% f.s.
Max. rated voltage to earth	Insulated conductor	Insulated conductor
Operating temperature	0°C to 50°C	0°C to 50°C
Core jaw diameter	Φ40 mm or less	Φ30 mm or less

For CLAMP ON SENSOR 9695-02
 CONNECTION CABLE 9219 For 9695, 3 m (9.84 ft.)

The following sensors can be used with Model LR8513 via the DISPLAY UNIT CM7290 (requires OUTPUT CORD L9095)

• AC/DC CURRENT SENSOR CT7631	: Φ33 mm, 100 A
• AC/DC CURRENT SENSOR CT7636	: Φ33 mm, 200 A*
• AC/DC CURRENT SENSOR CT7642	: Φ55 mm, 2000 A
• AC/DC AUTO-ZERO CURRENT SENSOR CT7731	: Φ33 mm, 100 A
• AC/DC AUTO-ZERO CURRENT SENSOR CT7736	: Φ33 mm, 200 A*
• AC/DC AUTO-ZERO CURRENT SENSOR CT7742	: Φ55 mm, 2000 A
• AC FLEXIBLE CURRENT SENSOR CT7044	: Φ100 mm, 5000 A*
• AC FLEXIBLE CURRENT SENSOR CT7045	: Φ180 mm, 5000 A*
• AC FLEXIBLE CURRENT SENSOR CT7046	: Φ254 mm, 5000 A*

* Maximum measurable current when used with the LR8513. For more details, please refer to our website.

LAN Cable Testers

LAN CABLE HiTESTER 3665

Product warranty for 3 years
Accuracy guaranteed for 1 year

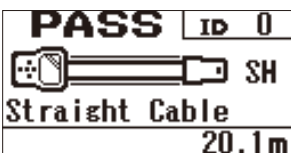


- Included accessories**
- TERMINATOR (ID 0)
 - Carrying case
 - LR6 alkaline battery × 2
 - Instruction manual

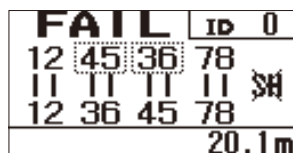
Order code **3665**

Measurement	Measurable cable	Twisted-pair cable, characteristic impedance: 100 Ω, shielded and unshielded, CAT 3, 4, 5, 5e, 6 and 6A *Not available for CAT 7	
	Compatible connectors	RJ-45 plugs	
	Measurement parameters	Wire Map test (detectable errors)	Open, short, reversed, transposed, split pairs and other incorrect wiring
		Cable length	2.0 to 300.0 m Accuracy: ±4% rdg. ±1 m (in case of single line)
		Direction	Up to 21 cables can be identified ¹
	Other	Functions	Backlight, auto power off
Operating temperature		0°C to 40°C, 80% rh or less (non-condensating)	
Storage temperature		-10°C to 50°C, 80% rh or less (non-condensating)	
Standards		EN61010 (Safety), EN61326 (EMC)	
Power supply		LR6 alkaline battery × 2	
Continuous operating time		50 hours	
Dimensions (W × H × D)	85 × 130 × 33 mm (3.35 × 5.12 × 1.30 in.)		
Mass	160 g (5.6 oz.)		

¹Using the supplied Terminator (ID 0) and optional Models 9690-01 to 9690-04



Display wire map, cable length, and ID of connected terminal



Pins 3 and 6 have been incorrectly paired with Pins 4 and 5

Options	
1 TERMINATOR 9690-01	ID 1 to 5
2 TERMINATOR 9690-02	ID 6 to 10
3 TERMINATOR 9690-03	ID 11 to 15
4 TERMINATOR 9690-04	ID 16 to 20
5 CARRYING CASE 9249	



9690-01, etc. 9249

Clamp

Insulation

Tester

Detectors

Earth

Power quality

Power loggers

Battery

Logger

LAN

Lux

Temperature

Resistance

Lux Testers

LUX METER FT3424, FT3425

Product warranty for 3 years
Accuracy guaranteed for 2 years



FT3424

FT3425



Gennect Cross



Extension cart minimizes physical stress



- Built-in Bluetooth® wireless technology
- Verify and record measured data with free Gennect Cross mobile app
- *Available only with products displayed with the Gennect Cross icon

Order code **FT3424**
Order code **FT3425**

Measurement	Standards	DIN 5032-7: 1985 Class B, JIS C 1609-1: 2006 General Class AA
	Light receiving element	Silicon photo-diode
	Measurement ranges	20.00 lx, 200.0 lx, 2000 lx, 20000 lx, 200000 lx
	Linearity	±2% rdg. ¹⁾
Other	D/A output	Output level: 2 V/range f.s. Output accuracy: ±1% rdg. ±5 mV (at output rate)
	Functions	Timer hold function, memory function (up to 99 measured data can be saved.), hold, auto power off, buzzer sound, backlight, zero adjustment
Other	Interfaces	USB2.0 (FT3425 only: Bluetooth® 4.0LE)
	Operating temperature	-10°C to 40°C, 80% RH or less (non-condensating)
	Storage temperature	-20°C to 50°C, 80% RH or less (non-condensating)
	Accuracy guarantee for temperature and humidity	21°C to 27°C, 75% RH or less (non-condensating)
	Dustproof and waterproof	IP40 (EN60529)
	Standards	EN61010 (Safety), EN61326 (EMC), JIS C 1609-1: 2006 General Class AA, DIN 5032-7: 1985 Class B
	Power supply	LR6 alkaline battery × 2, or USB bus power (5 V DC)
	Continuous operating time	300 hours (Bluetooth® communication OFF)
	Dimensions (W × H × D)	78 × 170 × 39 mm (3.07 × 6.69 × 1.54 in.)
	Weight	FT3424: 310 g (10.9 oz.), FT3425: 320 g (11.3 oz.)

¹⁾ Multiply by 1.5 for display values in excess of 3000 lx.

Included accessories

- CARRYING CASE
- LR6 alkaline battery × 2
- Sensor cap (with strap)
- Strap
- USB cable (0.9 m)
- Instruction manual
- Precautions concerning use of equipment that emits radio waves (only FT3425)

Options

1	EXTENSION CART Z5023	
2	CONNECTION CABLE L9820	
3	CARRYING CASE C0202	Soft case
4	CARRYING CASE C0201	Semi-hard case
5	OUTPUT CORD L9094	Mini plug to banana 1.5 m (4.92 ft.)
6	OUTPUT CORD L9095	Connect to BNC terminal 1.5 m (4.92 ft.)
7	OUTPUT CORD L9096	Connect to terminal block 1.5 m (4.92 ft.)



Temperature Testers

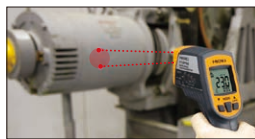
INFRARED THERMOMETER FT3700-20, FT3701-20

Product warranty for 1 year
Accuracy guaranteed for 1 year

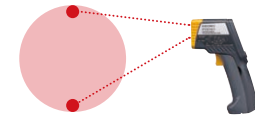


FT3700

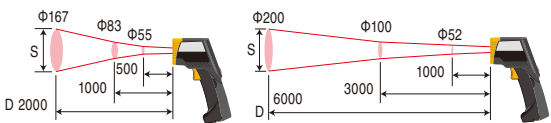
FT3701



Measure areas that cannot be touched or unreachable locations due to moving parts



Measure the average temperature inside a circle whose diameter is defined by the two indicated points.



D : S = 12 : 1 **FT3700**

D : S = 30 : 1 **FT3701**

D: Distance (mm), S: Spot (mm)

Included accessories

- CARRYING CASE
- LR03 alkaline battery × 2
- Instruction manual

Order code **FT3700-20**
Order code **FT3701-20**

Measurement	Measurement range	FT3700: -60.0 to 550.0°C (-76 to 1022°F) ¹⁾ FT3701: -60.0 to 760.0°C (-76 to 1400°F) ¹⁾
	Accuracy	0.0 to 100.0°C (-32.0 to 212.0°F): ±2°C 100.1 to 500.0°C (212.1 to 932.0°F): ±2% rdg. -35.0 to -0.1°C (-31.0 to 31.9°F): ±10% rdg. ±2°C ²⁾
	Measurement field diameter	FT3700: Φ83 mm at 1000 mm FT3701: Φ100 mm at 3000 mm
	Functions	MAX/MIN/DIF (MAX-MIN)/AVG measurement, alarm, backlight, continuous measurement mode, auto power off
Other	Operating temperature	0°C to 50°C, 80% RH or less (non-condensating)
	Storage temperature	-10°C to 50°C, 80% RH or less (non-condensating) 50°C to 60°C, 70% RH or less (non-condensating)
	Accuracy guarantee for temperature and humidity	23°C ±3°C, 80% RH or less (non-condensating)
	Standards	IEC 60825-1 CLASS2 (Laser), EN61326 (EMC)
	Power supply Continuous operating time	LR03 alkaline battery × 2 140 hours
Dimensions (W × H × D)	48 × 172 × 119 mm (1.89 × 6.77 × 4.69 in.)	
Weight	256 g (9.0 oz.)	

¹⁾ Guaranteed accuracy range is -35 to 500°C.

²⁾ -60.0 to -35.1°C (-76.0 to -31.1°F): Accuracy not specified

Resistance meter

RESISTANCE METER RM3548-50

Product warranty for 3 years
Accuracy guaranteed for 1 year



The RM3548-50 offers effortless operation and accuracy, making it ideal for EV maintenance, aircraft overhaul, and motor inspections.



Bluetooth® communication enables seamless data integration with mobile apps or Excel®, speeding up data sharing and report creation.

With Z3210

Bluetooth®
Please see www.hioki.com for list of supported regions.

Gennect Cross

Z3210

Included accessories

- Clip Type Lead L2107
- Temperature Sensor Z2002
- Protector Z5041
- LR6 alkaline battery × 8
- Instruction manual
- USB cable (A to mini-B)
- Strap
- Spare fuse

Order code **RM3548-50**

Order code **Z3210**

Measurement	Measurement parameters	Resistance measurement, temperature measurement
	Measurement method	Resistance: DC four-terminal method, Temperature: thermistor
	Resistance range	3 mΩ (3.5000 mΩ display max., 0.1 μΩ resolution) to 3 MΩ range (3.5000 MΩ display max., 100 Ω resolution), 10 steps Measurement accuracy: ±0.020 % rdg. ±0.007 % f.s.
	Temperature measurement	-10.0°C to 99.9°C, accuracy: ±0.5°C (temperature Sensor Z2002 and RM3548-50 combined accuracy)
	Operating temperature and humidity range	0°C to 40°C (32°F to 104°F), 80% RH or less (non-condensing)
Other	Storage temperature and humidity range	-10°C to 50°C (14°F to 122°F), 80% RH or less (non-condensing)
	Applicable standards	EN61010 (safety), EN61326 (EMC)
	Circuit protection	The circuit is protected until 42.4 V peak AC, 60 V DC is reached
	Memory storage	Number of recordable data points: up to 1,000 for manual/auto, up to 6,000 for interval; interval: 0.2 s to 10.0 s (0.2 s step); acquisition of data from memory: display, USB mass storage (CSV, TXT files)
	Communication functions	USB, wireless communications via Bluetooth® (Z3210 is necessary)
	Power supply	LR6 alkaline battery × 8 or HR6 nickel-metal hydride battery × 8
	Maximum rated voltage	5 VA
	Continuous operating time	Approx. 10 hours (when eight fresh LR6 alkaline batteries or eight HR6 nickel-metal hydride batteries are used)
	Dimensions (W × H × D)	199 × 132 × 60.6 mm (7.83 × 5.20 × 2.39 in.)
	Weight	890 g (31.4 oz.)

Options		
1	TEST LEADS L2140	
2	PIN TYPE LEAD L2141	
3	PIN TYPE LEAD L2142	
4	PIN TYPE LEAD 9465-10	
5	PIN TYPE LEAD 9465-11	
6	PIN TYPE LEAD 9772	
7	LARGE CLIP TYPE LEAD 9467	tip φ 28 mm (1.10 in.)
8	CLIP TYPE LEADS L2107	
9	TIP PIN 9465-90	To replace the tip on the 9465-10, 9465-11, L2140 (one piece)
10	PIN TYPE LEAD 9772-90	To replace the tip on the 9772 (one pin)
11	TEST LEAD (RED) L2140-01	L2140 red lead
12	TEST LEAD (BLACK) L2140-02	L2140 black lead
13	TEMPERATURE SENSOR Z2002	100 mm (3.94 in.)
14	LED COMPARATOR ATTACHMENT L2105	2 m (78.74 in.)
15	ZERO ADJUSTMENT BOARD 9454	For 9465-10 and 9465-11
16	0 ADJ BOARD Z5038	For 9465-10, and 9772
17	PROTECTOR Z5041	
18	CARRYING CASE C1015	Hard case



Measurement Lead Selection Guide
For detailed dimensions, features, and measurement target information, please refer here.



Product Warranties Hioki products are generally covered by a three-year warranty.

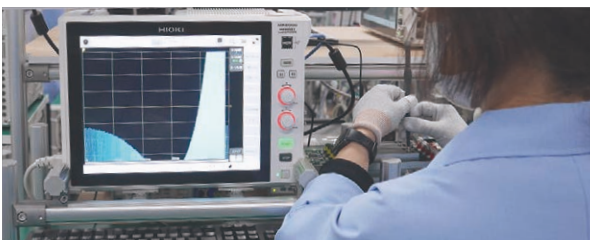
Product warranty	In the event Hioki is responsible for the failure of a product during the warranty term beginning on the date of purchase (or beginning in the month the product was manufactured if the date of purchase is unclear), we will repair or replace the product free of charge.
Warranty scope	We check products on a standalone basis to verify their specifications, performance, and functionality. Although we verify proper operation of components that are connected to Hioki products in standard configurations, we ask that customers verify proper operation of their Hioki products when connected to other manufacturers' products. The scope of Hioki's warranty is limited to Hioki products. Connected devices and issues caused by connected devices are considered outside the scope of the warranty. In the event of physical damage, any compensation that might be provided by Hioki is limited to the purchase price of the product.
Accuracy guarantee	For products with an accuracy guarantee, we guarantee the level of accuracy indicated in the specifications for a certain period of time following shipment from the factory. In the event of an accuracy defect during that period of time, we will adjust the product free of charge.

After-sales Service

Standard Calibration	If measured values fail to meet Hioki's standards during a calibration performed by Hioki ("Standard Calibration"), the instrument will be adjusted to meet the standards, and the calibration will then be repeated. For supported products, please refer to the "Service Information by Product" section on our website. Except for certain products, the company recommends that each product's accuracy guarantee period be treated as the recommended calibration interval. If a customer reports a loss of accuracy after Standard Calibration while the instrument in question is covered by the recommended calibration interval and we are able to verify the issue, we will adjust the instrument free of charge.
ISO/IEC 17025 Calibration (JCSS)	After Standard Calibration, we perform calibration based on ISO/IEC 17025. Hioki Headquarters is an international MRA-compliant, JCSS-accredited calibration service provider that meets ISO/IEC 17025 requirements. A JCSS calibration certificate bearing the JCSS symbol, compliant with the international MRA framework, is issued as internationally recognized proof of calibration. For details about which products are eligible for this service, please contact us. Note that the service is limited to the JCSS-accredited field of calibration. You can check the JCSS-accredited field of calibration on our website under Service for Calibration and Adjustment > ISO/IEC 17025 Calibration (JCSS) > JCSS certificate and scope of accreditation(English).
Repair	All faults reported by the customer will be repaired. Standard calibration is first conducted as a pre-repair diagnostic procedure, followed by standard calibration or adjustment/calibration after the repair. In some cases, pre-repair calibration may not be possible depending on the type of repair required. For supported products, please refer to the "Service Information by Product" section on our website. If within six months of the original repair, Hioki is responsible for an issue requiring an additional repair (a repair of the same issue) of a product that has been used as described in its user manual. We will repair it free of charge.

Warranty coverage after each service does not apply to issues suspected to be caused by factors such as component lifespan and degradation, equipment damage, or problems related to usage or storage conditions.
The calibration validity period (calibration interval) should be determined by each customer, taking into account the calibration interval recommended by the company.

Quality of Hioki's calibration and repair service



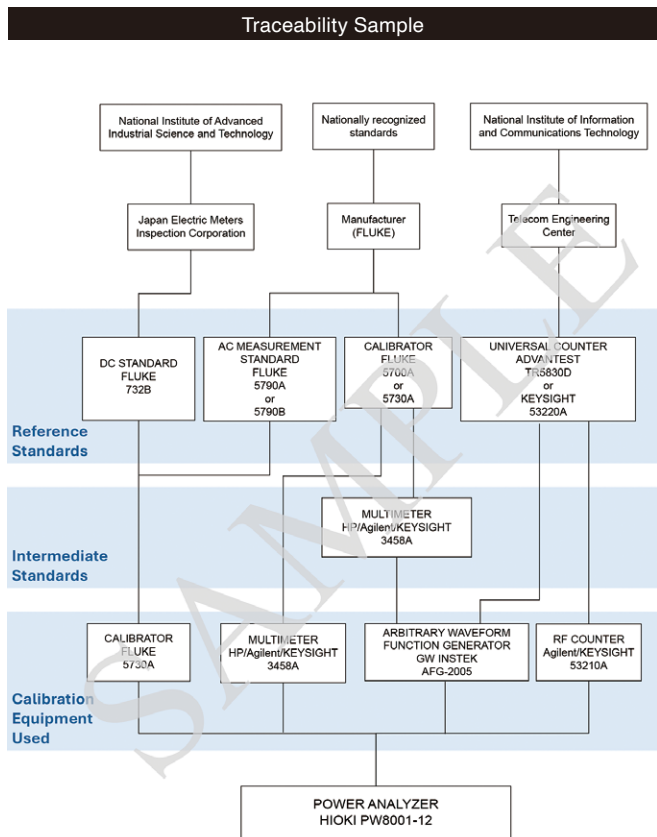
90 years of history and fine-grained, expert service
Technicians performing calibration, adjustment, and repair work undergo in-house training to ensure they possess the specialized expertise and skills that such work demands.

Precise calibration and adjustment guidelines compiled by product designers

We determine everything from the procedures for measuring instrument functionality checks to calibration points based on the results of reviews conducted by designers who are well versed in the characteristics of products' internal circuitry and the principles that underlie their operation. In this way, we are able to provide optimal, extensive calibration and adjustment service as only the manufacturer can.

Highly reliable service that's traceable to national standards
The standard devices we use to calibrate and adjust products are all linked to national standards, ensuring that we can issue inspection reports with accurate, reliable calibrated values.

Comprehensive calibration and repair service with fast turnaround
If we discover a malfunction or failure during the calibration process, we'll contact you to let you know where the problem is and what's necessary to address it. If you wish, we'll then repair the product. This capability eliminates unnecessary back-and-forth so you can put your product back to work as soon as possible.



Calibration and Repair Service

(1) Service content

Calibration Services

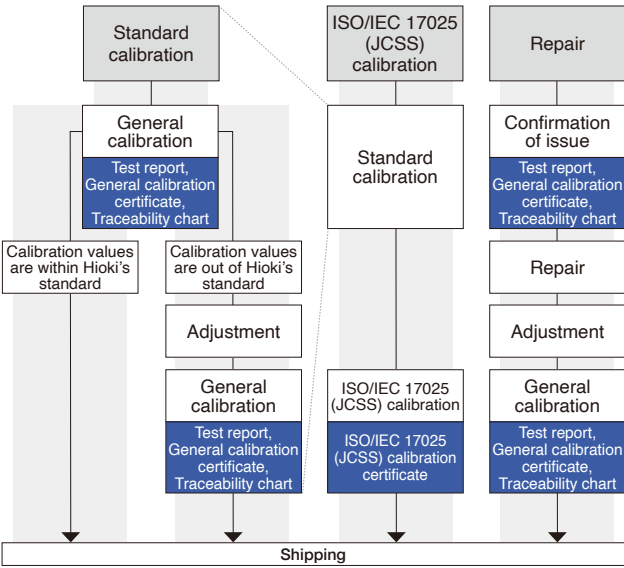
When an instrument is calibrated and its measured values are found not to satisfy internal Hioki standards, the instrument is adjusted. Through the ongoing use of calibration services offered as only an instrument manufacturer can, customers are able to use their instruments with peace of mind while maintaining their precision.

This calibration service will allow us to return products to customers with minimal downtime, since there are no work interruptions.

Notes

*If you do not wish your instrument to be adjusted, please let us know when you request calibration. Your product will be returned without adjustment, even if the calibration report indicates a FAIL judgment (non-compliance).

*This service does not extend to products that cannot be adjusted or to discontinued products.



Depending on the type of repair, standard calibration may not be possible in advance.

(2) Documents we can issue and their content

Sample documents are also available on Hioki's website.



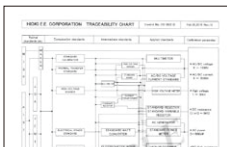
Test report

- Calibration results
- Judgment



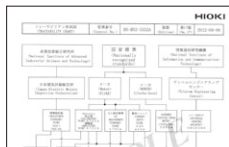
General calibration certificate

- Calibration certificate declaration
- Information about equipment used in calibration



Traceability chart (overall)

An overview tracing Hioki product groups to national standards via individual standard devices



Traceability chart (model-specific)

A detailed diagram tracing a particular product model to national standards via individual standard devices



JCSS calibration certificate

- Calibration results
- Inaccuracies
- Coverage factor
- Calibration certificate declaration
- ilac-MRA, IA Japan, and JCSS logos

Calibration

Calibration provides a way to check the condition of a measuring instrument by comparing the ideal value indicated by a standard device with the value indicated by the instrument being calibrated.

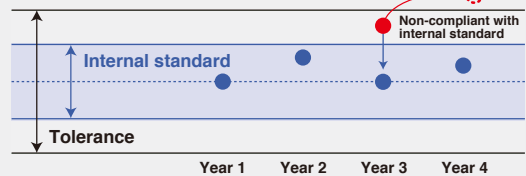
Adjustment

Calibration values will be optimized so that the instrument satisfies Hioki's internal standards.

If an instrument is adjusted as part of calibration service

Values are optimized so that they satisfy Hioki's internal standards to reduce the risk that they will subsequently exceed the tolerance.

Adjustment is performed since the tolerance is anticipated to be exceeded during the next calibration.



ISO/IEC 17025 Calibration (JCSS)

When is JCSS necessary?

JCSS calibration is the solution when you need calibration that includes inaccuracy data, for example ISO/IEC 17025 calibration, ILAC calibration, MRA calibration, or IATF 16949 calibration.

Specific examples:

- Calibration of instruments used by automobile (or motorcycle) manufacturers and part suppliers
- Calibration of instruments used in UL product certification
- Calibration of instruments as required by Japanese law (for radiation therapy) or ministerial ordinance (for pharmaceuticals and quasi-drugs)

JCSS calibration and international MRAs

JCSS is a registration program designed to ensure that calibration service providers possess the technological skills needed to perform calibration that complies with measurement-related laws and the requirements imposed by ISO/IEC 17025.

Registered service providers are entitled to perform JCSS calibration and issue calibration certificates bearing the JCSS symbol mark. Such certificates serve as evidence of the calibration service provider's technological skills and traceability. JCSS calibration service providers who have been certified as international MRA-compliant can issue calibration certificates bearing the ILAC-MRA and IA Japan symbol marks. Such certificates can be used as official documents whose validity is recognized worldwide.

International MRAs

An MRA is a mutual recognition agreement. IA Japan belongs to ILAC and APAC which includes NVLAP, A2LA, UKAS, DAKKS, and NATA. Calibration certificates issued by calibration service providers that have been certified as MRA-compliant by IA Japan are treated as equivalent to calibration certificates recognized by member certification entities in member countries.

Service capability and warranty duration

You can find out whether Hioki accepts repair and calibration requests for your instrument, associated lead times if so, and the information listed below simply by entering the product model number on Hioki's website.

Product Search:

Availability of repair and calibration service

Results

Model	Product	Availability		Discontinued date
		Calibration	Repair	
05256	DC/Hz METER	Calibration	Repair	
Recommended calibration interval		12 months		
Product warranty period		36 months		

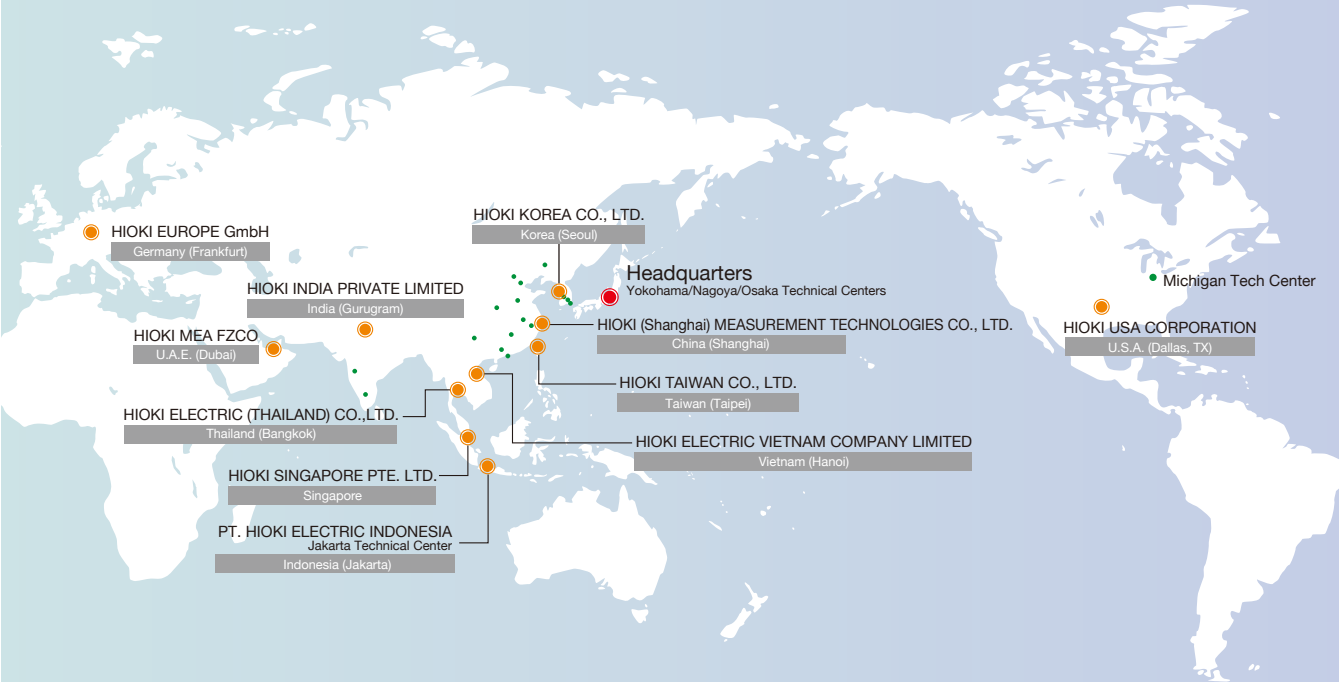
Calibration Interval

Product warranty period

Date production discontinued

Sales and service network

● HQ ● Regional Group HQ ● Offices of Group Companies



Our knowledgeable staff are always happy to assist you at Hioki group offices. Feel free to contact local tech centers or sales offices if you have any questions or need support.

What we offer:

- Expert consultation to help enhance your measurement accuracy
- Product training tailored to your specific applications
- Hands-on measurement of your Devices Under Test (DUTs)
- Integrated use of our measuring instruments for advanced applications



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