HIOKI

New

DIGITAL MULTIMETER DT4211/DT4212

DMM

Safety
Quality
Value

- Long Battery Life
- Large Display
- LCD Backlight
- Temperature (DT4212)
- Rich Variety of Options

DT4211 Mean DT4212 True RMS

ISO 9001 JMI-0216

ISO14001 JQA-E-90091

INTERNET HIOKI Website www.hioki.com

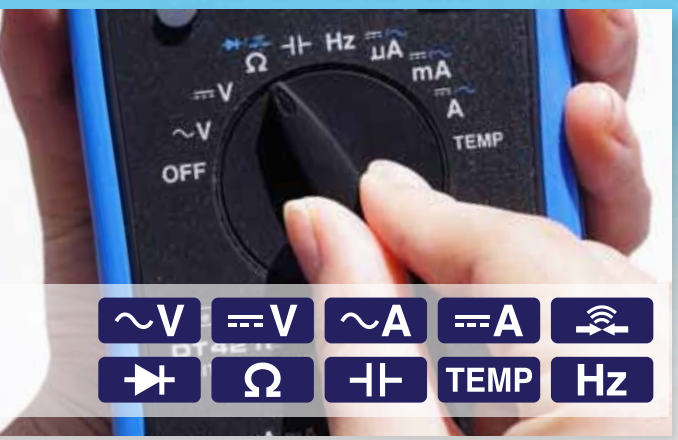
HIOKI company overview, new products, environmental considerations and other information are available on our website.

3 years Guaranteed for 3 years

CE

CAT III 600V
CAT II 1000V

DT4211/DT4212 DIGITAL MULTIMETER



Extensive measurement functionality

Extensive selection of measurement parameters for a variety of applications

Measurement items	DT4211 / Mean	DT4212 / True RMS
AC voltage	400mV to 1000V	
DC voltage	400mV to 1000V	
DC current	400 µA to 10A	
AC current	400 µA to 10A	
Continuity check	Yes	
Diode check	Yes	
Resistance	400 Ω to 40 MΩ	
Capacitance	50 nF to 100 µF	
Temperature	n/a	-55 °C to 700 °C
Frequency	5 Hz to 5 MHz	

Large screen for excellent visibility

4-digit display

Max. 4,000 count

Quick update

Display value is updated 3 times every second.

Auto-range function

Range is automatically set based on measured signal.

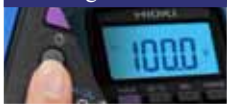
Hold display

Freeze the display to make it easier to read measurements.

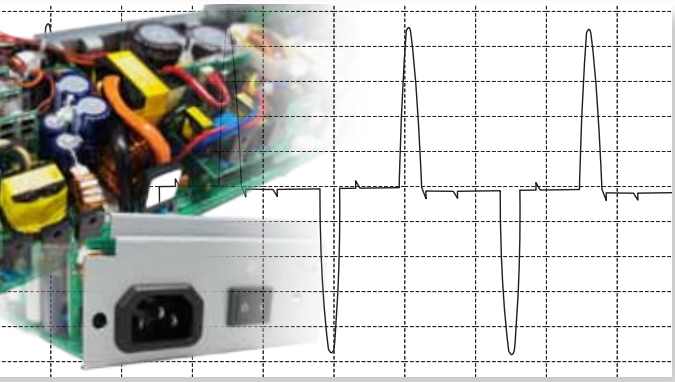
Relative display

Display results as relative values.

Back light

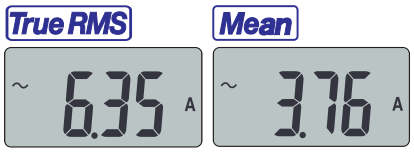


Easy to see even in dark worksites



True RMS measurement for accurate data

◀ Measurement of distorted current values



True RMS measured value　　Mean measured value

When measuring current values whose waveforms are distorted, for example for motors or inverters, measured values derived using the mean value method and true RMS method differ significantly. The true RMS method yields more accurate measured values.

*Only the DT4212 supports true RMS measurement. The DT4211 uses the mean value method.

Practical DMMs for a Variety of Worksites

No dead batteries during measurement

Approx. 800 hours of continuous operating time
(When using two alkaline batteries with the DT4211)

Automatic power off
The DMM turns off automatically when it has not been used for a certain amount of time.

Battery strength display
Remaining battery life is shown so you'll always know when it's time to change batteries.

Wide temperature range

Operating temperature range of -10°C to 50°C

Take the DMMs to extreme climate conditions without worrying about operability.

Industry safe

CAT Ⅲ 600V
CAT Ⅱ 1000V

Defined by IEC 61010, these standards ensure that measuring instruments can be used safely.
The DT4211/DT4212 can be used in measurement applications up to CAT III.
*For more information, please see page 4.

Product and accuracy guarantees

12-month accuracy guarantee
The accuracy of measured values obtained with the DT4211/DT4212 is guaranteed for 12 months.

3-year product guarantee
HIOKI will repair any defects for which it is responsible free of charge for a period of three years after purchase (excludes accuracy).

Specifications / Accuracy

Accuracy Warranty Period : 1 Year 23 ± 5°C (73°F±9°F) , 80% RH or less (Without condensation)

AC Voltage

Range	Accuracy	Input Impedance
	40 to 500Hz	
400.0 mV*1	±1.0 %rdg. ±10 dgt.	11MΩ ± 2 %//100pF or less
4.000 V	±1.0 %rdg. ±5 dgt.	
40.00 V		
400.0 V		10MΩ + 2 %//100pF or less
1000 V		

Crest factor	2 up to 2800 counts and reduces linearly to 1.5 at 4000 counts.
Accuracy specification range	1% or more of the range

*1 Only the manual range.

DC Voltage

Range	Accuracy	Input Impedance
400.0 mV	±0.5 %rdg. ±3 dgt.	100MΩ or more
4.000 V		11MΩ ± 2 %
40.00 V		10MΩ + 2 %
400.0 V		
1000 V		

DC Current

Range	Accuracy	Input Impedance
400.0 µA	±1.2 %rdg. ±3 dgt.	100 Ω ± 5 %
4000 µA		
40.00 mA		2 Ω ± 40 %
400.0 mA		
4.000 A		0.05 Ω ± 40 %
10.00 A		

AC Current

Range	Accuracy	Input Impedance
400.0 µA	±1.2%rdg.±5dgt.	100 Ω ± 5 %
4000 µA		
40.00 mA		2 Ω ± 40 %
400.0 mA		
4.000 A		0.05 Ω ± 40 %
10.00 A		

Crest factor	2 up to 2800 counts and reduces linearly to 1.5 at 4000 counts.
Accuracy specification range	1% or more of the range
Accuracy guarantee range for frequency	40 Hz to 500 Hz

Continuity Check

Range	Accuracy	Measurement Current	Open-terminal Voltage
400.0 Ω	±1.0 %rdg. ±15 dgt.	Approx. 140 µA	DC0.5 V or less

Continuity ON threshold	90Ω ± 40Ω or less (buzzer)

Diode Check

Range	Accuracy	Measurement Current	Open-terminal Voltage
1.000 V	±10.0 %rdg.	Approx. 0.5 mA	DC3.0 V or less

Resistance

Range	Accuracy	Measurement Current	Open-terminal Voltage
400.0 Ω	±0.5 %rdg. ±3 dgt.	Approx. 140 µA	DC0.5 V or less
4.000 kΩ	±0.5 %rdg. ±2 dgt.		
40.00 kΩ		Approx. 40 µA	
400.0 kΩ		Approx. 4 µA	
4.000 MΩ		Approx. 400 nA	
40.00 MΩ	±1.5 %rdg. ±3 dgt.	Approx. 40 nA	

Capacitance

Range	Accuracy	Charging current	Open-terminal Voltage
50.00 nF	±1.5 %rdg. ±15 dgt.	Approx. 30 µA	DC1.5 V or less
500.0 nF	±2.0 %rdg. ±5 dgt.		
5.000 µF	±5.0 %rdg. ±5 dgt.		
50.00 µF			
100.0 µF			

Temperature (DT4212 Only)

Range	Measurement range	Accuracy	Thermocouple Type
400 °C	-55.0 to 0.0 °C	±2.0 %rdg. ±2°C	K
	0.0 to 50.0 °C	±2°C	
	50.0 to 400.0 °C	±2.0 %rdg. ±1°C	
700 °C	400 to 700 °C		

Frequency

Range	Accuracy	Minimum sensitivity voltage
5.000 Hz	±0.1 %rdg. +3 dgt.	Square wave of 1.5Vms or more
50.00 Hz		
500.0 Hz		
5.000 kHz		
50.00 kHz		
500.0 kHz		
5.000 MHz		Square wave of 2.0Vms or more

Measurement range	1Hz or more

Other

Durability

Operating temperature and humidity	-10°C to 40°C	80% RH or less (Without condensation)
	40°C to 45°C	60% RH or less (Without condensation)
	45°C to 50°C	50% RH or less (Without condensation)
Storage temperature and humidity	-20°C to 60°C	80% RH or less (Without condensation)
Dielectric strength	AC7.06kV (Between all input terminals and case)	

Applicable standards

Safety : EN61010, EMC: EN61326, Waterproof and dustproof: IP40

Safety

Maximum rated voltage between input terminals and ground	CAT Ⅲ600V/ CAT Ⅱ1000V
Maximum rated voltage between terminals	Between the V and COM terminals : 1000 V DC/AC
Maximum rated current between terminals	Between the mA and COM terminals : 400mA DC/400mA AC Between the A and COM terminals : 10A DC/10A AC

Power supply

Alkaline (LR6) battery ×2 / Manganese(R6P) battery ×2

Dimensions/Mass

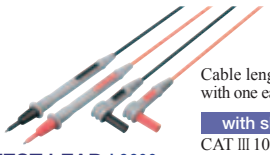
91.6mm(W)×180.6mm(H)×57.1mm(D) (3.61"W 7.11"H 2.25"D)
Approx. 388g (including batteries and holster) (Approx. 13.7 oz.)

Package Contents

TEST LEAD L9206 × 1 / Holster (attached) × 1 / Instruction Manual × 1 / Manganese(R6P) battery × 2

Options

L9206 Options (sold separately)



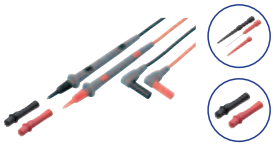
Cable length 98 cm (2.95 ft)
with one each red and black sleeves

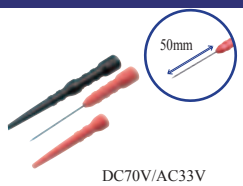
with sleeves
CAT III 1000V/CAT IV 600V

without sleeves
CAT II 1000V

TEST LEAD L9206
(Bundled accessory)

L4933 and L4934 probe tips(at right) can be used on L9206 test leads.





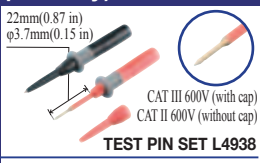
DC70V/AC33V
CONTACT PIN SET L4933

CATII 600V
CATIII 300V
SMALL ALLIGATOR CLIP SET L4934

L4930 Options (sold separately)

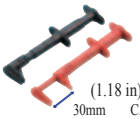
L4935, L4936, L4937, L4932, 9243, and L4931 probe tips (at right) can be used on L4930 test leads.

Length : 1.2m (3.94 ft)
CONNECTION CABLE L4930

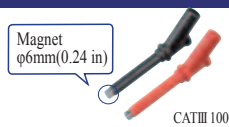


CAT III 600V (with cap)
CAT II 600V (without cap)
TEST PIN SET L4938

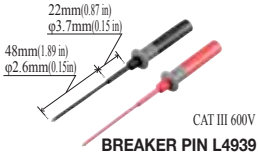
CATIII 1000V
CATIV 600V
ALLIGATOR CLIP SET L4935



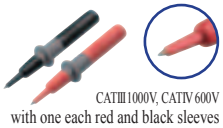
CATIII 600V
BUS BAR CLIP SET L4936



CATIII 1000V
MAGNETIC ADAPTER SET L4937

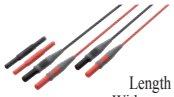


CAT III 600V
BREAKER PIN L4939



CATIII 1000V, CATIV 600V
with one each red and black sleeves
TEST PIN SET L4932

CATIII 1000V
GRABBER CLIP 9243



CAT III 1000V
CAT IV 600V
Length : 1.5m (4.92 ft)
With coupling connectors
EXTENSION CABLE SET L4931

Other options

- Thermal junction form: exposed weld
- Sensor length: approx. 800 mm
- Measurement temperature range
  –40 to 260°C (thermocouple)
  –15 to 55°C (connector)
- Allowable tolerance:±2.5°C

THERMOCOUPLES (K) DT4910

MAGNETIC STRAP Z5004

CARRYING CASE C0202

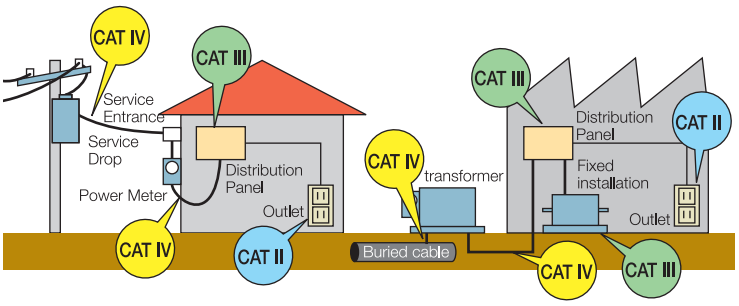
CARRYING CASE C0201

Measurement categories (Overvoltage categories)

To ensure safe operation of measurement products, IEC 61010 establishes safety standards for various electrical environments, categorized as **CAT** II to **CAT** IV *1, and called measurement categories. These are defined as follows.

CAT II : Primary electrical circuits in equipment connected to an AC electrical outlet by a power cord (portable tools, household appliances, etc.)
CAT III : Primary electrical circuits of heavy equipment (fixed installations) connected directly to the distribution panel, and feeders from the distribution panel to outlets.
CAT IV : The circuit from the service drop to the service entrance, and to the power meter and primary overcurrent protection device (distribution panel).

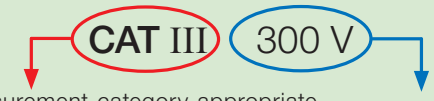
***1:** CAT I was eliminated from the IEC 61010 : 2010 edition*



Higher-numbered categories correspond to electrical environments with greater momentary energy, so a measurement product designed for **CAT** III environments can endure greater momentary energy than one designed for **CAT** II.

*HIOKI products bearing the CE Mark are designed in accordance with the requirements for the relevant measurement categories. To ensure safe use of measuring instruments, please use products displaying the appropriate CAT label for the intended location of use.

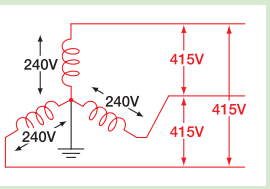
How to view categories



Measurement category appropriate for location of use

Voltage to earth

● 3-phase 3-wire (3φ3W) : 400V



About the indicated voltage

Black: Input-to-ground voltage (Including line voltage)
Red: Line voltage

Although the line voltage for the 400 V line shown in the figure is 415 V, the input-to-ground voltage is 240 V (300 V) or less.

Note: Company names and Product names appearing in this catalog are trademarks or registered trademarks of various companies.

HIOKI E. E. CORPORATION

HEADQUARTERS:
81 Koizumi, Ueda, Nagano, 386-1192, Japan
TEL +81-268-28-0562 FAX +81-268-28-0568
http://www.hioki.com / E-mail: os-com@hioki.co.jp

HIOKI USA CORPORATION:
TEL +1-609-409-9109 FAX +1-609-409-9108
http://www.hiokiusa.com / E-mail: hioki@hiokiusa.com

HIOKI (Shanghai) SALES & TRADING CO., LTD.:
TEL +86-21-63910090 FAX +86-21-63910360
http://www.hioki.cn / E-mail: info@hioki.com.cn

HIOKI INDIA PRIVATE LIMITED:
TEL +91-124-6590210 FAX +91-124-6460113
E-mail: hioki@hioki.in

HIOKI SINGAPORE PTE. LTD.:
TEL +65-6634-7677 FAX +65-6634-7477
E-mail: info@hioki.com.sg

HIOKI KOREA CO., LTD.:
TEL +82-42-936-1281 FAX +82-42-936-1284
E-mail: info-kr@hioki.co.jp

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All information correct as of Apr. 30, 2014. All specifications are subject to change without notice.

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