

HIOKI

DIGITAL MULTIMETER DT4200 Series



DT 4200 SERIES

MADE IN JAPAN



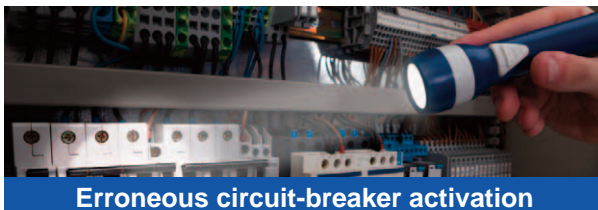
Defy conventional wisdom for achieving testing safety with
a new and proprietary circuit breaker false trip prevention function





Hazard
1

Mistakenly tripped circuit breakers and arcs due to careless input of voltage to the resistance range can be extremely hazardous.



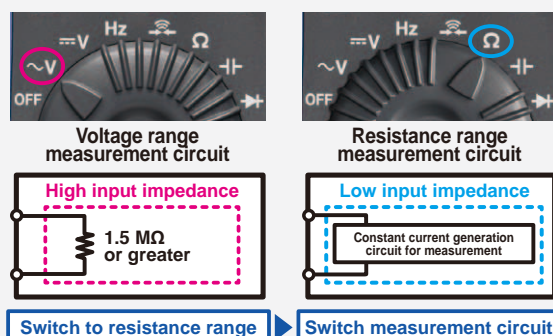
Erroneous circuit-breaker activation



Arcing and sparks

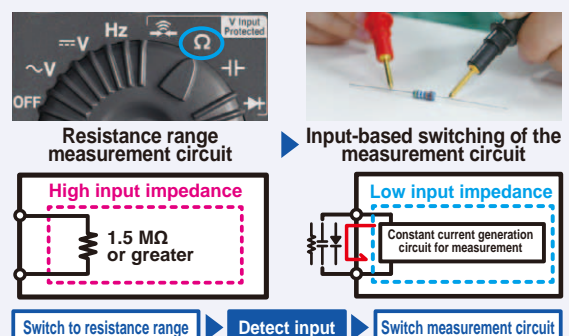
The DT4223 and DT4224 feature a new proprietary function that prevents accidents resulting from breakers that mistakenly trip due to incorrect input

Conventional digital multimeters



Because changing the measurement range also changes the measurement circuit, mistakenly inputting voltage with the instrument set to the resistance range will cause a large current to flow to the device, leading to hazards such as tripped circuit breakers and arcing.

DT4223 / DT4224 Digital Multimeter



The measurement circuit is switched after the instrument detects resistance, continuity, capacitance, or diode input. Even if you mistakenly input voltage with the instrument set to the resistance range, the high input impedance will limit the current flowing to the instrument to 1.5 mA or less to prevent potential hazards.



Safe testers that protect workers from dangerous accidents

Engineered based on extensive customer feedback, the Hioki Digital Multimeter DT4200 series delivers the design and quality needed in order to ensure safety in field measurement.

Hazard 2 Prevent unavoidable debris from shorting the measurement target and causing an accident.



The DT4255's voltage input terminals incorporate a protective fuse so that contamination of the instrument's internal components with iron powder or other particulate matter will not result in an internal short-circuit. The fuse can be replaced easily on site.

Hazard 3 Continued high input may result in major accidents such as fire.



To prevent an accident, a warning function immediately notifies the operator if the DMM receives excessively high input.

*Red screen available on high-end models and DT4223/DT4224 only.

Hazard 4 Wrong insertion may lead to short-circuits.



A range: Only the A and COM terminal inlets open.
V range: Only the V and COM terminal inlets open.

The DT4281 and DT4282 use terminal shutters to keep probes from being inserted into the wrong inlets. The shutters block whichever terminal is not being used based on the selected measurement function.

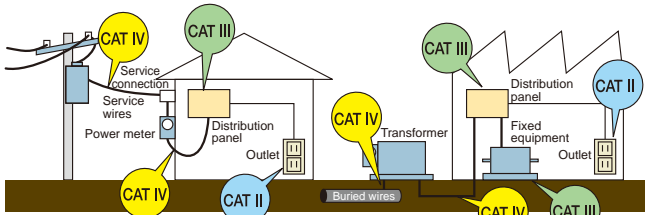
Hazard 5 Mistakenly measuring voltage using the current range may lead to a short-circuit.



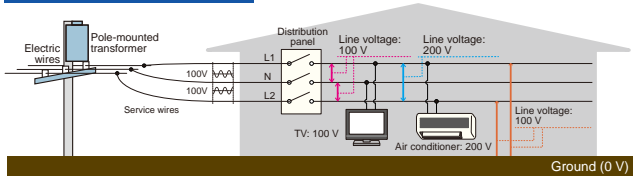
The DT4281, DT4253, DT4255, and DT4256 eliminate the root cause of such accidents by providing clamp-on sensor-based current measurement functionality instead of using conventional probes.



Measurement categories



Terminal-to-ground voltage



Safe measurement requires use of an instrument that suits the measurement location.

To ensure operators' ability to use measuring instruments safely, IEC 61010 classifies the locations in which instruments are used into a series of safety-based measurement categories (ranging from CAT II to CAT IV). Using an instrument that does not satisfy the required safety level can lead to an electrical accident.

CAT IV

600 V

Terminal-to-ground voltage
Measurement category
suited to the location of use

High-end models	CAT III 1000 V / CAT IV 600 V
Standard models	CAT III 1000 V / CAT IV 600 V
Pocket models	CAT III 600 V / CAT IV 300 V

Designed and manufactured in Japan to ensure high quality and guaranteed with a 3-year warranty for peace of mind



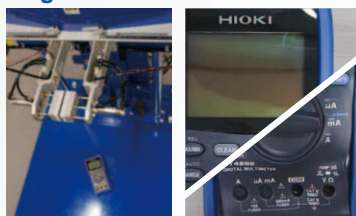
Almost all Hioki digital multimeters are carried out at our Head Office in Nagano Prefecture. Some of the industry's most advanced technological capabilities enable us to deliver products of the highest possible quality.



Field-Proven Strength and Usability

DT4200 series

Robust design capable of withstanding a drop from a height of 1 m onto concrete



Drop tester

To test our products' ability to withstand mechanical shock, we repeatedly drop them from a height of at least 1 m until they break. This drop-testing regime leads to more robust products by fostering a series of design improvements.

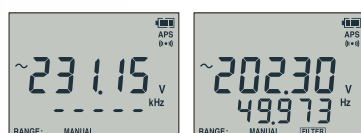


Preventing instrument failure by keeping out dust



If dust gets into the instrument's enclosure, it can cause the device to fail. Since dust can get into the instrument especially easily through the gap around the rotary switch, the DT4200 series incorporates a dust-proof part known as an O-ring where the rotary switch is mounted to improve the device's dust resistance.

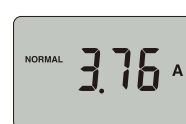
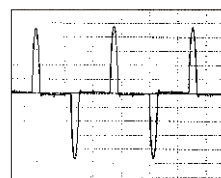
Fast, accurate measurement of the output voltage on the secondary side of an inverter



With low-pass filter off With low-pass filter on

The DT series can accurately measure the voltage on the secondary side of an inverter, just like a power meter. Its low-pass filter rejects harmonic components so that the fundamental wave can be isolated and accurately measured.

True RMS measurement for accurate measurement of even distorted current waveforms



Average-value method
measured value



True RMS method
measured value

Current waveforms are often distorted, causing the average-value and true RMS measurement methods to yield different results. To obtain accurate readings, RMS measurement is indispensable.

Outstanding viewing angle so display is easy to read at an angle or even in a dim location



The DT4200 series features a display with a wide viewing angle and a backlight function so that it's easy to read, even when you can't view the screen from the front or when making measurements in a dim location.

Rotary switch that's easy to operate even when wearing gloves



The DT4200's rotary switch is designed to be easy to turn even when wearing thick work gloves, for example while working in hazardous measurement locations or harsh conditions.

Outstanding hands-free ease of use in the field when working with numerous measurement locations



Secure the instrument on the wall so that you don't have to hold it.



The display automatically stops once the measured value stabilizes.

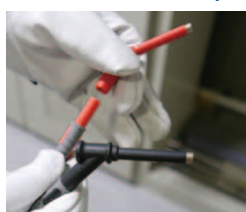


Press the MEM key to save measured values in the instrument's internal memory.

It's hard to carry out work tasks smoothly when you're juggling a measuring instrument, probes, recording paper, and other supplies. Field concerns like these are resolved by the DT4200's magnetic strap, auto-hold function, and ability to save results in its internal memory. These capabilities boost work efficiency and help reduce work times.

*The auto-hold function is available exclusively in high-end, standard models and DT4223, DT4224. The ability to save results in internal memory is available exclusively in high-end models.

Extensive selection of probe tips that you can choose based on the measurement location, improving ease of measurement



With screw terminals



In deep-set locations that can't be reached with other probes



For clamping around the target busbar

With the DT4200, you can choose the probe type that best suits your measurement location, making it possible to measure in areas that can't be reached with conventional probes and busbars that you wish to clamp between probes.

*Compatible probe tips vary with the DMM model. Please see page 16. The optional Connection Cable L4930 is required in order to use the probes shown at the left.



High-end models

Featuring high accuracy, extensive additional functionality, and a broad range of measurement parameters

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

Measurement categories: CAT III (1000 V) / CAT IV (600 V)



For electrical work in the field
DT4281

Designed for maximum safety in the field when measuring current with clamp-on sensors.

DC voltage	60.000 mV to 1000.0 V
AC voltage	60.000 mV to 1000.0 V
DC + AC voltage	6.000 V to 1000.0 V
DC current	600.00 μ A to 600.00 mA
AC current	600.00 μ A to 600.00 mA
AC clamp-on measurement	Frequency
Resistance	Continuity check
Temperature	Diode test
Capacitance	Conductance
AC/DC automatic detection	Voltage detection function



For laboratory and research use
DT4282

Designed for use in laboratories and R&D applications where you wish to measure a wide variety of parameters.

DC voltage	60.000 mV to 1000.0 V
AC voltage	60.000 mV to 1000.0 V
DC + AC voltage	6.000 V to 1000.0 V
DC current	600.00 μ A to 10.000 A
AC current	600.00 μ A to 10.000 A
AC clamp-on measurement	Frequency
Resistance	Continuity check
Temperature	Diode test
Capacitance	Conductance
AC/DC automatic detection	Voltage detection function

● Supported measurement parameter ● Supported measurement parameter (with model-specific variations) ● Unsupported measurement parameter
*The range figures given indicate the instrument's measurement ranges (not the range of measurable values).

Applications



Magnetic strap frees both hands for work

Using the magnetic strap (option)

By using the magnetic strap to secure the instrument to the wall, you can free both hands so that you can more easily record measured values, significantly boosting work efficiency.



Automatically hold display values and save results with one touch to the DMM's internal memory

The display is automatically held once the measured value stabilizes. You can save measurement results to the instrument's internal memory simply by pressing the MEM key, making it easy to read and record values during inspection work.



Manage measurement data on a computer

Using the Communication Package DT4900-01 (option)

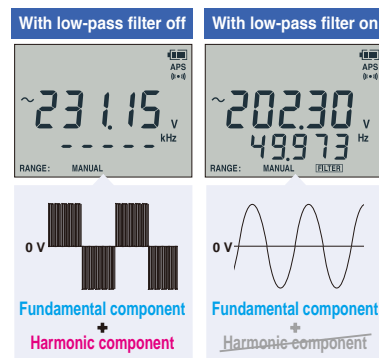
Measurement results can be downloaded to a computer via a USB connection. Once downloaded, you can save them as a file (text format) or display them as a graph using the desired interval. Results can also be sent in real time while measurement is ongoing.

*The computer and multimeter are electrically isolated by means of optical communications so that data can be sent with peace of mind.



Measure output voltage on the secondary sides of inverters

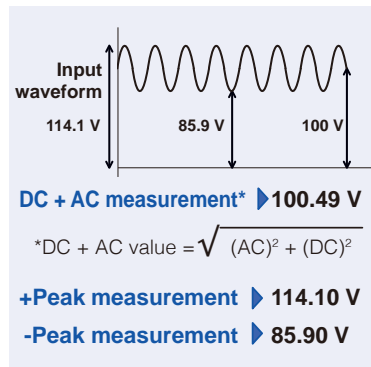
Accurately measure the fundamental wave alone by eliminating harmonic components with the DMM's low-pass filter function.



Ripple voltage confirmation of DC charging systems

Peak value measurement / DC + AC voltage measurement

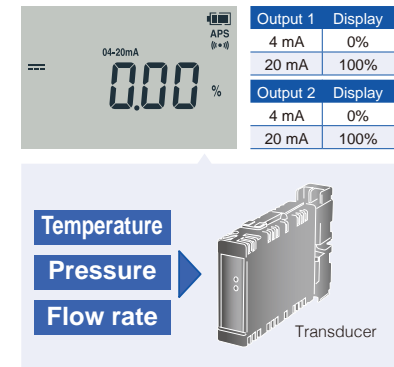
High-end models can detect ripple voltage with a superposed DC signal.



Percentage display for instrumentation signal measurement

4 to 20 mA / 0 to 20 mA percentage-equivalent display

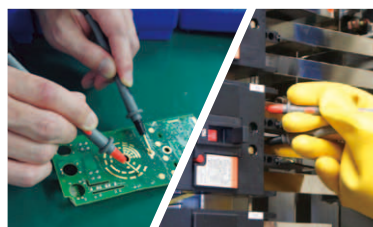
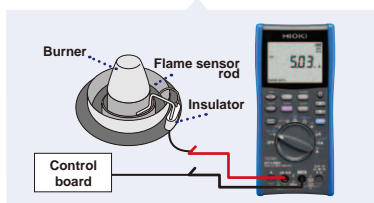
You can check percentage-equivalent values.



Measure very low currents used by gas-burning devices

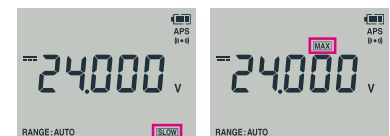
DC μ A range

High-end models provide a DC 600.00 μ A range for measuring burner flame currents.



Intuitive notification of continuity check results and excessively high input with a red screen backlight and beep

High-end models notify the operator of continuity check results and excessively high input with a red screen backlight and beep, making it possible to check measurement results intuitively.



Display refresh rate

Change the display refresh speed to stabilize the display when performing measurement characterized by a high level of variability.

Maximum/minimum value display

Check the maximum and minimum measured values shown on the display after pressing the MAX/MIN button.

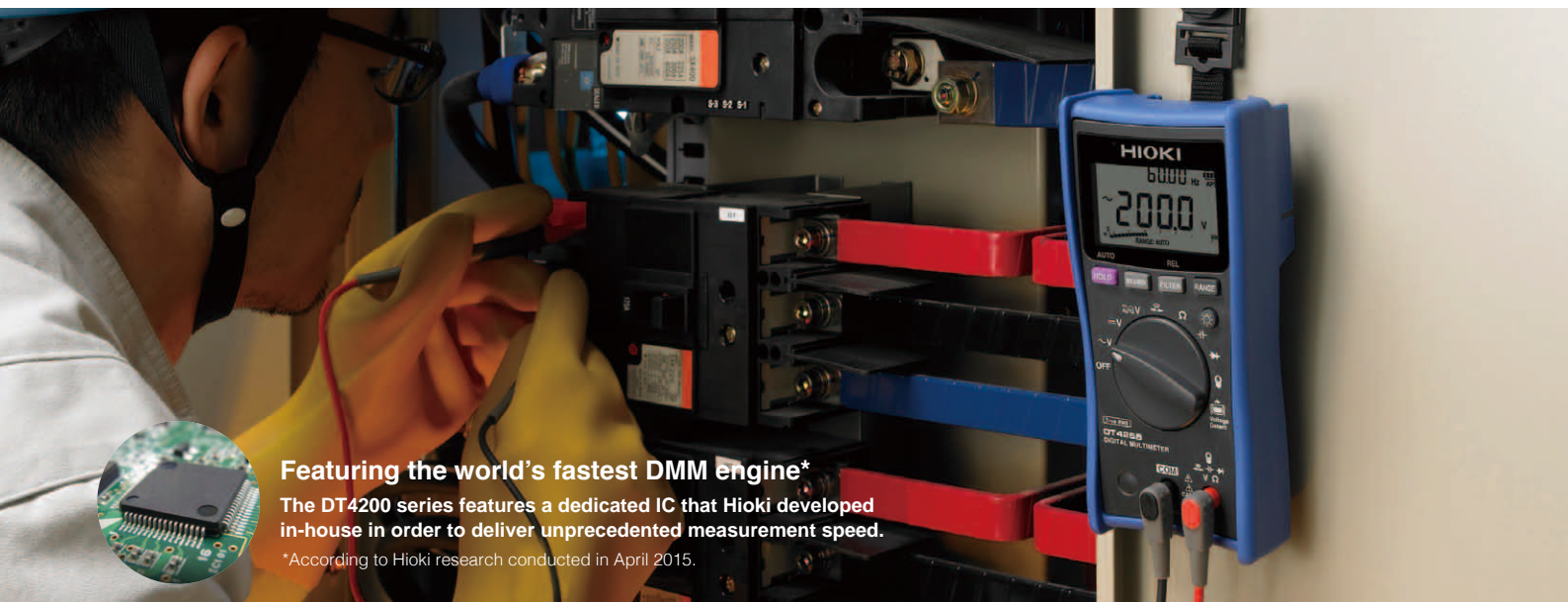


Relative display

View relative values using the display value before the relative function was enabled as the reference.

Decibel conversion

Convert the results of AC voltage measurement to a decibel value relative to a reference value and display the results (dbm/dbv).



Featuring the world's fastest DMM engine*

The DT4200 series features a dedicated IC that Hioki developed in-house in order to deliver unprecedented measurement speed.

*According to Hioki research conducted in April 2015.

Standard models

Introducing a line of field-optimized instruments that can be chosen based on the application at hand

DCV typical accuracy: $\pm 0.3\%$ rdg. ± 3 dgt.

Measurement categories: CAT III (1000 V) / CAT IV (600 V)



For laboratory and research use

DT4252

For laboratories and R&D applications where you wish to measure a wide variety of parameters.



For instrumentation 4-20mA

DT4253

Measure instrumentation, air-conditioning equipment, and gas-burning devices.



Voltage measurement only model

DT4254

Measure no-load voltage of photovoltaic modules at up to 1700 V DC.*



For electrical work in the field

DT4255

Designed for maximum safety with voltage measurement terminals that are protected by a fuse.



Multifunction model

DT4256

Delivers maximum functionality for use in a wide range of settings.

DC voltage	600.0 mV to 1000 V
AC voltage	6.000 V to 1000 V
DC + AC voltage	DT4281/4282 only
DC current	6.000 A to 10.00 A
AC current	6.000 A to 10.00 A
AC clamp-on measurement	Frequency
Resistance	Continuity check
Temperature	Diode test
Capacitance	Conductance
AC/DC automatic detection	Voltage detection function

DC voltage	600.0 mV to 1000 V
AC voltage	6.000 V to 1000 V
DC + AC voltage	DT4281/4282 only
DC current	60.00 μ A to 60.00 mA
AC current	n/a
AC clamp-on measurement	Frequency
Resistance	Continuity check
Temperature	Diode test
Capacitance	Conductance
AC/DC automatic detection	Voltage detection function

DC voltage	600.0 mV to 1500 V
AC voltage	6.000 V to 1000 V
DC + AC voltage	DT4281/4282 only
DC current	n/a
AC current	n/a
AC clamp-on measurement	Frequency
Resistance	Continuity check
Temperature	Diode test
Capacitance	Conductance
AC/DC automatic detection	Voltage detection function

DC voltage	600.0 mV to 1000 V
AC voltage	6.000 V to 1000 V
DC + AC voltage	DT4281/4282 only
DC current	n/a
AC current	n/a
AC clamp-on measurement	Frequency
Resistance	Continuity check
Temperature	Diode test
Capacitance	Conductance
AC/DC automatic detection	Voltage detection function

DC voltage	600.0 mV to 1000 V
AC voltage	6.000 V to 1000 V
DC + AC voltage	DT4281/4282 only
DC current	60.00 mA to 10.00 A
AC current	600.0 mA to 10.00 A
AC clamp-on measurement	Frequency
Resistance	Continuity check
Temperature	Diode test
Capacitance	Conductance
AC/DC automatic detection	Voltage detection function

● Supported measurement parameter ● Supported measurement parameter (with model-specific variations) ● Unsupported measurement parameter
The range figures given indicate the instrument's measurement ranges (not the range of measurable values).

*Your instrument can be used to measure voltages in excess of 1000 V DC if and only if both of the following conditions are satisfied:
1. The circuit under measurement is isolated from the commercial power grid. 2. The circuit under measurement is isolated from ground.

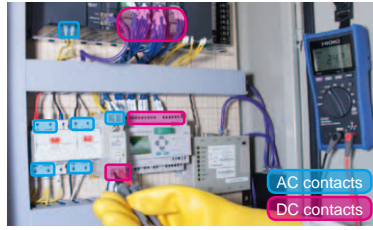
Applications



Magnetic strap and auto-hold function free up hands for easier work

Using the magnetic strap (option)

By using the magnetic strap to secure the instrument to the wall and the auto-hold function to automatically stop display values, you can free your hands, making it easier to record measured values and significantly boosting work efficiency.



Automatic switching of measurement in locations where AC and DC voltages are mixed

AC/DC voltage automatic detection (DT4253/54/55/56 only)

When making measurements in locations with both AC and DC voltages, automatic switching eliminates the need to operate the rotary switch and helps prevent measurement mistakes.



Use a computer in the field to save and check measured values

With the Communication Package DT4900-01 (option)

Measured values can be displayed in real time on a computer, and displayed values can be saved to a file (text format) or graphed at a user-specified interval.

*The computer and multimeter are electrically isolated by means of optical communications so that data can be sent with peace of mind.



Measure output voltage on the secondary sides of inverters

Accurately measure the fundamental wave by eliminating harmonic components with the DMM's low-pass filter function.



Test no-load voltage at megasolar installations

1700 V DC measurement (DT4254 only)

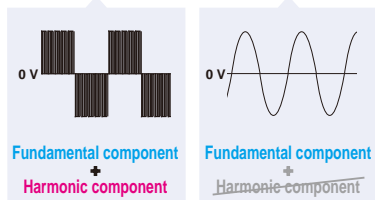
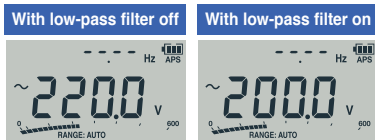
Model DT4254 can measure DC voltages up to 1700 V, enabling you to make no-load voltage inspections of megasolar installations.*



Percentage display for instrumentation signal measurement

4 to 20 mA percentage-equivalent display (DT4253 only)

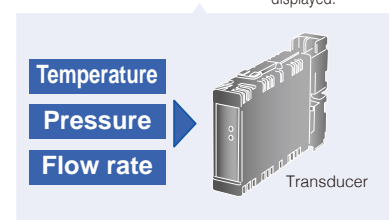
The standard models' dual display function lets you to simultaneously check measured values and percentage-equivalent values at a glance.



Polarity detection and notification

Certain standard models can detect a load voltage in excess of -10 V and notify the operator with a red LED and beep.

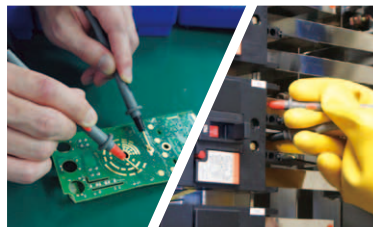
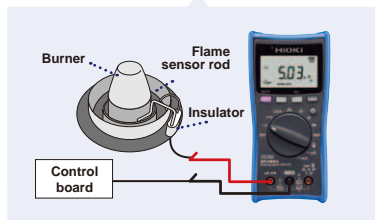
*DT4254/4255/4256 only.



Measure very low currents used by gas-burning devices

DC μ A range (DT4253 only)

Model DT4253 provides a DC 60.00 μ A range for measuring burner flame currents.



Intuitive notification of continuity check results and excessively high input with a red LED and beep

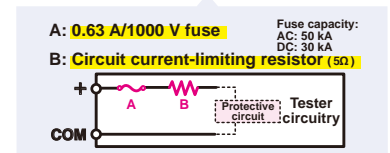
Standard models notify the operator of continuity check results and excessively high input with a red LED and beep, making it possible to check measurement results intuitively.



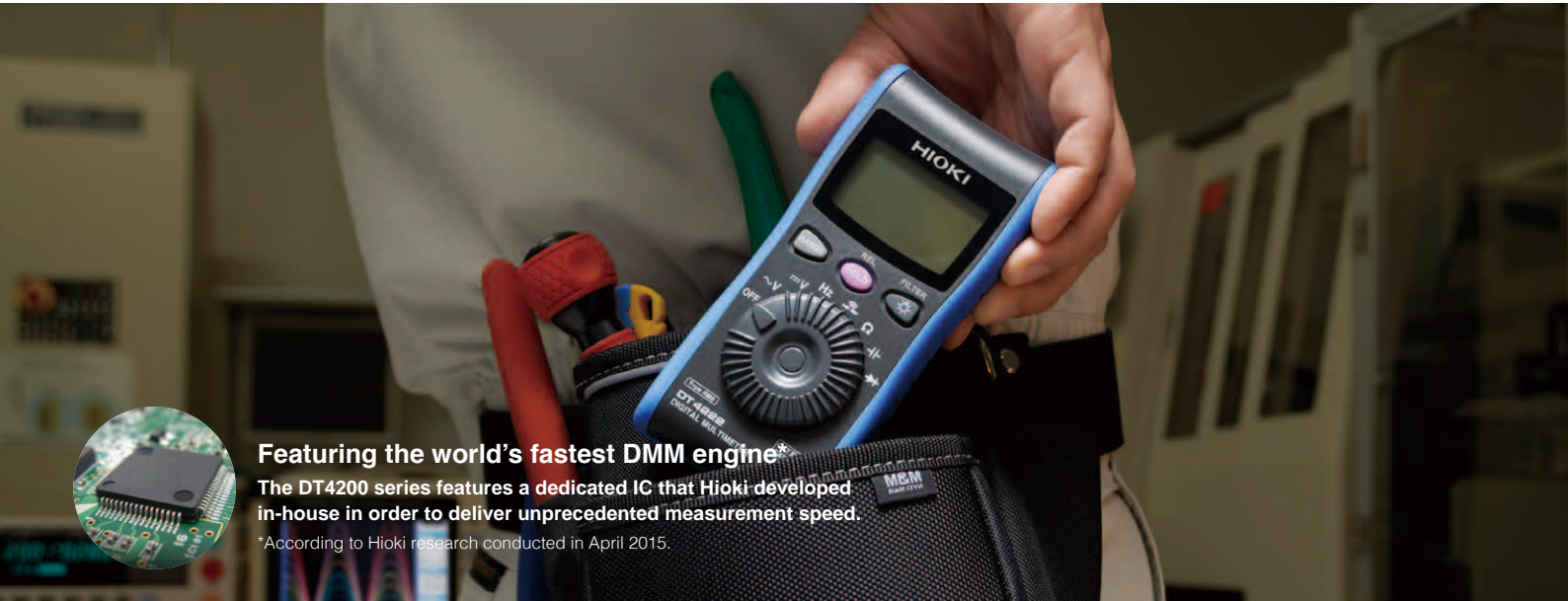
Thorough prevention of short-circuit accidents

Voltage measurement terminal fuse (DT4255 only)

When using the resistance measurement function, a protective circuit functions to prevent a short-circuit accident in the event of erroneous operation such as improperly supplying voltage input. Even if a short-circuit occurs inside the tester, a current-limiting resistor will limit any short-circuit current while a fast-blow fuse quickly and reliably disconnects the tester circuitry, preventing a short-circuit accident.



*Your instrument can be used to measure voltages in excess of 1000 V DC if and only if both of the following conditions are satisfied:
1. The circuit under measurement is isolated from the commercial power grid. 2. The circuit under measurement is isolated from ground.



Featuring the world's fastest DMM engine*
The DT4200 series features a dedicated IC that Hioki developed in-house in order to deliver unprecedented measurement speed.
*According to Hioki research conducted in April 2015.

Pocket models

Featuring a compact body for ergonomic hold and a reliable, safe design
DCV typical accuracy: $\pm 0.5\%$ rdg. ± 5 dgt.
Measurement categories: CAT III (600 V) / CAT IV (300 V)



For electrical work in the field
DT4221

Delivering maximum field safety for workers whose principal use is voltage measurement.



For multiple applications
DT4222

For laboratories and R&D applications to measure a wide variety of parameters.



For electrical work in the field
DT4223

Delivering maximum field safety for workers whose principal use is voltage measurement.



For multiple applications
DT4224

For laboratories and R&D applications to measure a wide variety of parameters.

Circuit breaker false trip prevention built-in

DC voltage	600.0 mV to 600.0 V
AC voltage	6.000 V to 600.0 V
DC + AC voltage	DT4281/4282 only
DC current	n/a
AC current	n/a
AC clamp-on measurement	Frequency
Resistance	Continuity check
Temperature	Diode test
Capacitance	Conductance
AC/DC automatic detection	Voltage detection function

DC voltage	600.0 mV to 600.0 V
AC voltage	6.000 V to 600.0 V
DC + AC voltage	DT4281/4282 only
DC current	n/a
AC current	n/a
AC clamp-on measurement	Frequency
Resistance	Continuity check
Temperature	Diode test
Capacitance	Conductance
AC/DC automatic detection	Voltage detection function

DC voltage	600.0 mV to 600.0 V
AC voltage	6.000 V to 600.0 V
DC + AC voltage	DT4281/4282 only
DC current	n/a
AC current	n/a
AC clamp-on measurement	Frequency
Resistance	Continuity check
Temperature	Diode test
Capacitance	Conductance
AC/DC automatic detection	Voltage detection function

DC voltage	600.0 mV to 600.0 V
AC voltage	6.000 V to 600.0 V
DC + AC voltage	DT4281/4282 only
DC current	n/a
AC current	n/a
AC clamp-on measurement	Frequency
Resistance	Continuity check
Temperature	Diode test
Capacitance	Conductance
AC/DC automatic detection	Voltage detection function

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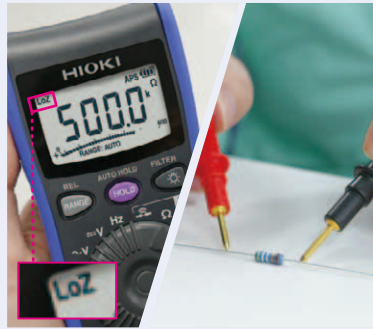
Applications

New DT4223 and DT4224 feature circuit breaker false trip prevention



Prevent potential accidents during incorrect input

The measurement circuit switches only after detecting the appropriate signal. This way, even if you mistakenly input voltage, accidents due to tripped breakers or arcs will not happen. (see page 2)



LoZ icon identifies switched measurement circuit

When the instrument detects resistance, continuity, capacitance, or diode input, the LoZ icon is shown on the display, allowing you to identify at a glance which measurement circuit has been selected.



Warning function notifies you of incorrect input.

The instrument's display flashes red to warn you when voltage has been mistakenly input while the instrument is set to the resistance range.



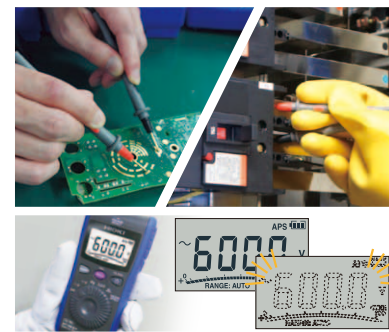
Compact and lightweight design for outstanding ease of use

The small form factor fits in your hand perfectly and is easily stowable, making it convenient to transport to and from the field and boosting work efficiency. The lightweight design also ensures that pocket models are easy to work with.



Safe enough for measuring voltage at distribution panels and service wires

Despite a compact body, the pocket models can be used to measure voltage at distribution panels and service wires in CAT III (600 V)/CAT IV (300 V) situations.



Intuitive notification of excessively high input with flashing screen

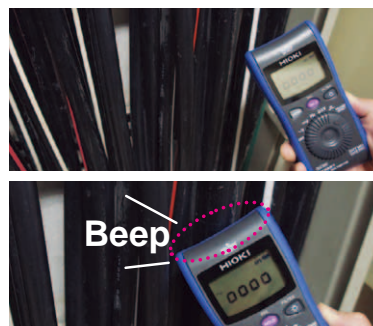
The pocket digital multimeters notify the operator of excessively high input by flashing the screen, making it possible to check measurement results intuitively.



Automatic switching of measurement in locations where AC and DC voltages are mixed

AC/DC voltage automatic detection (DT4221, DT4223 only)

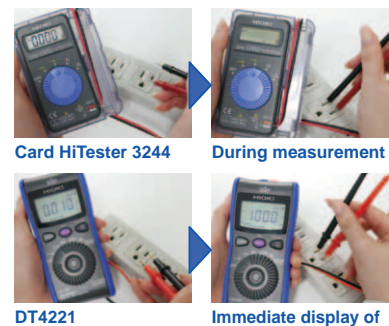
When making measurements in locations with both AC and DC voltages, automatic switching eliminates the need to operate the rotary switch and helps prevent measurement mistakes.



Detect voltage simply by holding the instrument against a wire

Voltage detection function (DT4221, DT4223 only)

Easily detect voltage with the built-in sensor. Results are communicated with a beep.



Fast measurement for outstanding ease of use

Measured values are displayed quickly to facilitate quick testing. The difference is clear when you compare the measurement speed with that of the Hioki Card HiTESTER 3244-60.

DT4200 Series Basic Comparison



	DT4281	DT4282	DT4252	DT4253	DT4254	DT4255	DT4256	DT4221	DT4222	DT4223	DT4224
Basic Characteristics											
True RMS	Yes		Yes					Yes			
DCV basic accuracy	±0.025 %rdg. ±2 dgt.		±0.3 %rdg. ±5 dgt.		±0.3 %rdg. ±3 dgt.			±0.5 %rdg. ±5 dgt.			
Measurement items (Typical ranges are indicated; may not reflect maximum or minimum measurable signal)											
DC voltage	60 mV to 1000 V		600 mV to 1000 V		600 mV to 1500 V*1	600 mV to 1000 V		600 mV to 600 V			
AC voltage	60 mV to 1000 V		6 V to 1000 V					6 V to 600 V			
DCV + ACV	6 V to 1000 V		n/a					n/a			
DCA current	600 μA to 600 mA	600 μA to 10 A	6 A to 10 A	60 μA to 60 mA	n/a		60 mA to 10 A	n/a			
ACA current	600 μA to 600 mA	600 μA to 10 A	6 A to 10 A	n/a			600 mA to 10 A	n/a			
AC clamp	10 A to 1000 A	n/a	n/a	10 A to 1000 A	n/a	10 A to 1000 A	10 A to 1000 A	n/a			
Resistance	60 Ω to 600 MΩ		600 Ω to 60 MΩ		n/a	600 Ω to 60 MΩ		n/a	600 Ω to 60 MΩ		
Temperature	-40°C to 800°C		n/a	-40°C to 400°C	n/a			n/a			
Capacitance	1 nF to 100 mF		1 μF to 10 mF		n/a	1 μF to 10 mF		n/a	1 μF to 10 mF	n/a	1 μF to 10 mF
Frequency	99 Hz to 500 kHz		99 Hz to 99 kHz					99 Hz to 9.9 kHz			
Continuity check	Yes		Yes		n/a	Yes		Yes			
Diode check	Yes		Yes		n/a	Yes		n/a	Yes	n/a	Yes
Conductance	n/a	Yes	n/a					n/a			
Voltage detection	n/a		n/a		Yes			Yes	n/a	Yes	n/a
Additional Functions											
AUTO AC/DCV	n/a		n/a	Yes				Yes	n/a	Yes	n/a
Peak measurement	DC/AC		n/a					n/a			
Low-pass filter	Analog filter Cut-off : 630 Hz		Digital filter Pass-band : 100Hz/500Hz					Digital filter Pass-band : 100Hz/500Hz			
Display update setting	Yes		n/a					n/a			
Hold display value	AUTO / MANUAL		AUTO / MANUAL					MANUAL		AUTO / MANUAL	
Max/Min value display	Yes		Yes					n/a			
Relative display	Yes		Yes					Yes			
Decibel conversion	Yes		n/a					n/a			
Percentage conversion display	Yes		n/a	Yes	n/a		n/a	n/a			
DC voltage polarity check	n/a		n/a		Yes			n/a			
Data storage											
Capacity	Max 400 data		n/a					n/a			
USB communication*2	Yes		Yes					n/a			
Operating time											
Continuous operating time	Approx. 100 hours*3		Approx. 130 hours					Approx. 40 hours		Approx. 35 hours	
Power supply	Alkaline (LR6) battery x4 / Manganese(R6P) battery x4		Alkaline (LR03) battery x4					Alkaline (LR03) battery x1			
Display											
Back light	Yes		Yes					Yes			
Dual display	Yes		Yes					n/a			
Bar graph display	n/a		Yes					Yes			
Safety											
Safety standard categories	CATIII1000 V/ CATIV600 V		CATIII1000 V/ CATIV600 V					CATIII600 V/ CATIV300 V			
Mis-insertion prevention shutters	Yes		n/a					n/a			
Circuit breaker false trip prevention	n/a		n/a					n/a		Yes	

*1. Your instrument can be used to measure voltages in excess of 1000 V DC if and only if both of the following conditions are satisfied:
1. The circuit under measurement is isolated from the commercial power grid. 2. The circuit under measurement is isolated from ground.

*2. Requires optional DT4900-01 Communication Package *3. When using four AA alkaline batteries

Glossary

Auto AC/DCV : Automatically detects and measures AC and DC voltage. | **Peak measurement** : After starting PEAK value measurement, check maximum and minimum instantaneous voltage and current values. | **Low-pass filter** : Cuts high frequency content to provide stable numerical values for measurement. | **Display update setting** : Reduces the display value update rate to stabilize measurements. | **Hold display value** : Manual: press the button to freeze the display. Auto: the display freezes automatically when the measurement value is stable. | **Max/Min value display** : Pressing the MAX/MIN button displays the maximum and minimum displayed measurement values. | **Relative display** : Pressing the REL button displays subsequent measurements as values relative to that displayed when the button was pressed. | **Decibel conversion** : Displays AC voltage measurements converted to decibel values (dbm/dbv) | **Percentage conversion display** : Displays 4 to 20 mA (or 0 to 20 mA) signals converted to 0 to 100% values. For the DT4253, only 4 to 20 mA.

High-End DT4281/DT4282

(Accuracy guaranteed for 1 year, Post-adjustment accuracy guaranteed for 1 year)

DC Voltage		
Range	Accuracy	Input Impedance
60.000 mV	±0.2 %rdg. ±25 dgt.	1 GΩ or more //100 pF or less
600.00 mV	±0.025 %rdg. ±5 dgt.	
6.0000 V	±0.025 %rdg. ±2 dgt.	11.0 MΩ± 2% //100 pF or less
60.000 V		10.3 MΩ±2% //100 pF or less
600.00 V	±0.03 %rdg. ±2 dgt.	10.2 MΩ± 2% //100 pF or less
1000.0 V		

AC Voltage						
Range	Accuracy					
	20 to 45 Hz	45 to 65 Hz	65 to 1 kHz	1 k to 10 kHz	10 k to 20 kHz	20 k to 100 kHz
60.000 mV	±1.3 %rdg.	±0.4 %rdg.	±0.6 %rdg.	±0.9 %rdg.	±1.5 %rdg.	±20 %rdg. ±80 dgt.
600.00 mV	±60 dgt.	±40 dgt.	±40 dgt.	±40 dgt.	±40 dgt.	±8 %rdg. ±80 dgt.
6.0000 V	±1 %rdg.	±0.2 %rdg.	±0.3 %rdg.	±0.4 %rdg.	±0.7 %rdg.	±3.5 %rdg.
60.000 V	±60 dgt.					
600.00 V	Undefined	±25 dgt.	±25 dgt.	±25 dgt.	±40 dgt.	±40 dgt.
1000.0 V	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined

DCV + ACV Measurement						
Range	Accuracy					
	20 to 45 Hz	45 to 65 Hz	65 to 1 kHz	1 k to 10 kHz	10 k to 20 kHz	20 k to 100 kHz
6.0000 V	±1.2 %rdg.	±0.3 %rdg.	±0.4 %rdg.	±0.4 %rdg.	±1.5 %rdg.	±3.5 %rdg.
60.000 V	±65 dgt.					
600.00 V	Undefined	±30 dgt.	±30 dgt.	±30 dgt.	±45 dgt.	±125 dgt.
1000.0 V	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined

Input impedance	1MΩ ± 4 %//100pF or less
Crest factor	3 or less (1.5 or less for the 1000.0V range)
Accuracy specification range	5% or more of each range With the filter ON, accuracy is defined only for frequencies 100Hz or less. Furthermore, 2% rdg. is added

DCA Measurement				*1 : DT4282 only
Range	Accuracy / Display update : SLOW	Accuracy / Display update : NORMAL	Shunt Resistance	
600.00 μA	±0.05 %rdg. ±5 dgt.	±0.05 %rdg. ±25 dgt.	101 Ω	
6000.0 μA		±0.05 %rdg. ±5 dgt.		
60.000 mA	±0.15 %rdg. ±5 dgt.	±0.05 %rdg. ±25 dgt.	1 Ω	
600.00 mA		±0.15 %rdg. ±5 dgt.		
6.0000 A ¹	±0.2 %rdg. ±5 dgt.	±0.2 %rdg. ±25 dgt.	10m Ω	
10.000 A ¹		±0.2 %rdg. ±5 dgt.		

ACA Measurement						*1 : DT4282 only
Range	Accuracy					
	20 to 45 Hz	45 to 65 Hz	65 to 1 kHz	1 k to 10 kHz	10 k to 20 kHz	
600.00 μA	±1.0 %rdg.	±0.6 %rdg.	±0.6 %rdg.	±2 %rdg.	±4 %rdg.	
6000.0 μA	±20 dgt.	±20 dgt.	±20 dgt.	±20 dgt.	±20 dgt.	
60.000 mA	±1.0 %rdg.	±0.6 %rdg.	±0.6 %rdg.	±2 %rdg.	±4 %rdg.	
600.00 mA	±5 dgt.	±5 dgt.	±5 dgt.	±5 dgt.	±5 dgt.	
60.000 mA	±1.0 %rdg.	±0.6 %rdg.	±0.6 %rdg.	±1 %rdg.	±2 %rdg.	
600.00 mA	±20 dgt.	±20 dgt.	±20 dgt.	±20 dgt.	±20 dgt.	
600.00 mA	±1.0 %rdg.	±0.6 %rdg.	±0.6 %rdg.	±1.5 %rdg.	Undefined	
600.00 mA	±5 dgt.	±5 dgt.	±5 dgt.	±10 dgt.	Undefined	
6.0000 A ¹	Undefined	±0.8 %rdg.	±0.8 %rdg.	Undefined	Undefined	
10.000 A ¹	Undefined	±20 dgt.	±20 dgt.	Undefined	Undefined	
10.000 A ¹	Undefined	±0.8 %rdg.	±0.8 %rdg.	Undefined	Undefined	
10.000 A ¹	Undefined	±5 dgt.	±5 dgt.	Undefined	Undefined	

Shunt resistance	μA Range 101Ω/ mA Range 1Ω/ A Range 10mΩ
Crest factor	3 or less (Note that it applies to 1/2 of the range.)
Accuracy specification range	Accuracy is not defined for measurements below 5% of range

Continuity Check			
Range	Accuracy	Measurement Current	Open-terminal Voltage
600.0 Ω	±0.5 %rdg. ±5 dgt.	640 μA ±10%	DC2.5 V or less
Continuity threshold	20Ω (default) /50Ω/ 100Ω/ 500Ω		

Diode Check			
Range	Accuracy	Measurement Current	Open-terminal Voltage
3.600 V	±0.1 %rdg. ±5 dgt.	1.2 mA or less	DC4.5 V or less
Forward threshold	0.15V/ 0.5V (default)/1V/ 1.5V/ 2V/ 2.5V/ 3V If the reading is lower than the threshold during the forward connection, a buzzer sounds and the red backlight turns on.		

AC Clamp (AC Current)			DT4281 only
Range	Accuracy		
	40 to 65 Hz	65 to 1 kHz	
10.00 A	±0.6 %rdg. ±2 dgt.	±0.9 %rdg. ±2 dgt.	
20.00 A	±0.6 %rdg. ±4 dgt.	±0.9 %rdg. ±4 dgt.	
50.00 A	±0.6 %rdg. ±10 dgt.	±0.9 %rdg. ±10 dgt.	
100.0 A	±0.6 %rdg. ±2 dgt.	±0.9 %rdg. ±2 dgt.	
200.0 A	±0.6 %rdg. ±4 dgt.	±0.9 %rdg. ±4 dgt.	
500.0 A	±0.6 %rdg. ±10 dgt.	±0.9 %rdg. ±10 dgt.	
1000 A	±0.6 %rdg. ±2 dgt.	±0.9 %rdg. ±2 dgt.	

The optional 9010-50, 9018-50, or 9132-50 CLAMP ON PROBE is used.

Accuracy does not include the error of the clamp-on probe.

Crest factor 3 or less

Accuracy is not defined for measurements below 15% of range

Resistance Measurement			
Range	Accuracy	Measurement Current	Open-terminal Voltage
60.000 Ω	±0.3 %rdg. ±20 dgt.	640 μA ±10%	DC2.5 V or less
600.00 Ω	±0.03 %rdg. ±10 dgt.		
6.0000 kΩ	±0.03 %rdg. ±2 dgt.	96 μA ±10%	
60.000 kΩ		9.3 μA ±10%	
600.00 kΩ		0.96 μA ±10%	
6.0000 MΩ	±0.15 %rdg. ±4 dgt.	96 nA ±10%	
60.00 MΩ	±1.5 %rdg. ±10 dgt.		
600.0 MΩ	±3.0 %rdg. ±20 dgt.		
	±8.0 %rdg. ±20 dgt.		

Conductance (nS)				DT4282 only
Range	Accuracy	Measurement Current	Open-circuit Voltage	
600.00 nS	±1.5 %rdg. ±10 dgt.	96 nA ±10%	DC2.5 V or less	

Accuracy is defined for humidity 60% RH or less. Accuracy is defined for the range 20nS or more. In the case of 300 nS or more, ±20 dgt. is added

Capacitance Measurement			
Range	Accuracy	Measurement Current	Open-circuit Voltage
1.000 nF	±1 %rdg. ±20 dgt.	32 μA ±10%	DC2.5 V or less
10.00 nF	±1 %rdg. ±5 dgt.		
100.0 nF			
1.000 μF			
10.00 μF	±2 %rdg. ±5 dgt.	680 μA ±20%	DC3.1 V or less
100.0 μF			DC2.1 V or less
1.000 mF			
10.00 mF			
100.0 mF			±2 %rdg. ±20 dgt.

Temperature		
Thermocouple Type	Range	Accuracy
K	-40.0 to 800.0 °C (-40.0 to 1472.0°F)	±0.5 %rdg. ±3 °C (5.4°F)

The optional K Thermocouple DT4910 is used. Accuracy does not include the error of the K thermocouple

Frequency (For AC V, DC+AC V, AC μA, AC mA, AC A)	
Range	Accuracy
99.999 Hz	±0.005 %rdg. +3 dgt.
999.99 Hz	
9.9999 kHz	
99.999 kHz	±0.005 %rdg. +3 dgt.
500.00 kHz	

Measurement range	0.5Hz or more ([----] is displayed when frequency is less than 0.5Hz)
Pulse width	1μs or more (DUTY ratio is 50%)
With the filter ON, accuracy is defined only for frequencies 100Hz or less. (For ACV, DC+ACV)	

Peak Measurement (For AC V, DC V, DC+AC V, Clamp, DC μA, DC mA, DC A, AC μA, AC mA, AC A)		
Main measurement	Signal width	Accuracy
DCV	4ms or more (single)	±2.0 %rdg. ±40 dgt.
	1ms or more (repeated)	±2.0 %rdg. ±100 dgt.
Other than DCV	1ms or more (single)	±2.0 %rdg. ±40 dgt.
	250μs or more (repeated)	±2.0 %rdg. ±100 dgt.

Decibel Conversion Measurement : Standard impedance (dBm)	
4/8/16/32/50/75/93/110/125/135/150/200/250/300/500/600/800/900/1000/1200 Ω	(default : 600 Ω)

General Specifications

Durability		
Drop proof		YES
Operating temperature and humidity*1		-15°C to 55°C
Storage temperature and humidity*2		-30°C to 60°C
Applicable standards		Safety : EN61010, EMC: EN61326, Waterproof and dustproof: IP40

*1 : -15°C to 55°C (5°F to 131°F), Up to 40°C (104°F): at 80%RH or less (non-condensating),
40°C to 45°C (104°F to 113°F): at 60%RH or less (non-condensating),
45°C to 55°C (113°F to 131°F): at 50%RH or less (non-condensating)
*2 : 80%RH or less (non-condensating)

Dimensions/Mass	
93mm(W)×197mm(H)×53mm(D)(3.66"W 7.76"H 2.09"D Inch) / 650g (including batteries) (23 oz.)	

Standard DT4252/DT4253/DT4254/DT4255/DT4256
(Accuracy guaranteed for 1 year, Post-adjustment accuracy guaranteed for 1 year)

DC Voltage		*1 : DT4252 only *2 : DT4254 only
Range	Accuracy	Input Impedance
High precision 600mV range ^{*1}	±0.2 %rdg. ±5 dgt.	10.2 MΩ ± 1.5 %
600.0 mV	±0.5 %rdg. ±5 dgt.	11.2 MΩ ± 2.0 %
6.000 V	±0.3 %rdg. ±3 dgt. ^{*3}	
60.00 V		10.3 MΩ ± 2.0 %
600.0 V		10.2 MΩ ± 1.5 %
1000 V		
1500 V ^{*2}	±0.3 %rdg. ±3 dgt. ^{*4}	

*2 : Your instrument can be used to measure voltages in excess of 1000 V DC if and only if both of the following conditions are satisfied:
1. The circuit under measurement is isolated from the commercial power grid. 2. The circuit under measurement is isolated from ground.
*3 : DT4254,DT4255, DT4256 only, DT4252, DT4253 is ±5 dgt. *4 : 0 to 1000 V, 1001 V to 1700V : ±0.2 %rdg. ±5 dgt.

AC Voltage			
Range	Accuracy		Input Impedance
	40 to 500 Hz	500 or more to 1kHz	
6.000V	±0.9 %rdg. ±3 dgt.	±1.8 %rdg. ±3 dgt.	11.2 MΩ ± 2.0%/100 pF or less
60.00V			10.3 MΩ ± 2.0%/100 or less
600.0V			10.2 MΩ ± 1.5%/100 or less
1000V			

AUTO V (Identification)		DT4253, DT4254, DT4255, DT4256 only	
Range	Accuracy		Input Impedance
	DC, 40 to 500 Hz	500 or more to 1kHz	
600.0 V	±2.0 %rdg. ±3 dgt.	±4.0 %rdg. ±3 dgt.	900 kΩ ± 20% 1800 kΩ ± 20% ¹

Crest factor	3 up to 4000 counts and reduces linearly to 2 at 6000 counts.
Accuracy specification range	For ACV, minimum 1% of range; add ±5 dgt. when measuring at or below 5% of range With the filter ON,the accuracy is not specified at 100Hz/500Hz or more

*1 : DT4254

DCA Measurement			DT4252, DT4253, DT4256 only
Range	Accuracy	Input Impedance	
60.00 μA	±0.8 %rdg. ±5 dgt.	1 kΩ±5 %	
600.0 μA	±0.8 %rdg. ±5 dgt.	1 kΩ±5 %	
6.000 mA	±0.8 %rdg. ±5 dgt.	15 Ω±40 %	
60.00 mA	±0.8 %rdg. ±5 dgt. ¹	15 Ω±40 % ¹	
600.0 mA	±0.9 %rdg. ±5 dgt.	35 mΩ±30 %	
6.000 A	±0.9 %rdg. ±3 dgt. ²	35 mΩ±30 %	
10.00 A	±0.9 %rdg. ±3 dgt. ¹²	35 mΩ±30 %	

● : DT4252 ● : DT4253 ● : DT4256

*1 : DT4256 : ±1.8 %rdg. ±15 dgt. Input Impedance : 35 mΩ±30 %

*2 : DT4252 : ±0.9 %rdg. ±5 dgt.

ACA Measurement			DT4252, DT4256 only
Range	Accuracy		Input Impedance
	40 to 500 Hz	500 or more to 1kHz	
600.0 mA ¹	±1.4 %rdg. ±5 dgt.	±1.8 %rdg. ±5 dgt.	35 mΩ±30 %
6.000 A	±1.4 %rdg. ±3 dgt.	±1.8 %rdg. ±3 dgt.	35 mΩ±30 %
10.00 A	±1.4 %rdg. ±3 dgt.	±1.8 %rdg. ±3 dgt.	35 mΩ±30 %

Crest factor	3 up to 4000 counts and reduces linearly to 2 at 6000 counts.
Accuracy specification range	Minimum 1% of range; add ±5 dgt. when measuring 300 counts or less

*1 : DT4256 only

Electric Charge			DT4254, DT4255, DT4256 only
Range	Detection voltage range	Detection Target Frequency	
Hi	AC40 V to AC600 V	50 Hz / 60 Hz	
Lo	AC80 V to AC600 V		

During voltage detection, a continuous buzzer sounds and the red LED lights up.

Safety	
Maximum rated voltage between input terminals and ground	CATIII1000 V/ CATIV600 V
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 : 600mA DC/600mA AC Between the A and COM terminals : 10A DC/10A AC

Accessories

TEST LEAD L9207-10 , Instruction Manual, LR6 alkaline battery×4

Continuity Check		DT4252, DT4253, DT4255, DT4256 only	
Range	Accuracy	Measurement Current	Open-terminal Voltage
600.0 Ω	±0.7 %rdg. ±5 dgt.	Approx.200 μA	DC1.8 V or less
Continuity ON threshold		Approx. 25Ω or less (continuous buzzer sound, red LED lights)	
Continuity OFF threshold		Approx.245Ω or more	

Diode Check		DT4252, DT4253, DT4255, DT4256 only	
Range	Accuracy	Measurement Current	Open-terminal Voltage
1.500 V	±0.5 %rdg. ±5 dgt. ¹	Approx. 0.5 mA	DC5.0 V or less
Forward threshold	Buzzer sounds intermittently at 0.15V to 1.5V, the red LED flashes		

*1 : DT4255 : ±0.5 %rdg. ±8 dgt.

AC Clamp (AC Current)		DT4253, DT4255, DT4256 only
Range	Accuracy	
	40 to 1 kHz	
10.00 A	±0.9 %rdg. ±3 dgt.	
20.00 A		
50.0 A		
100.0 A		
200.0 A		
500 A		
1000 A		

The optional 9010-50, 9018-50, or 9132-50 CLAMP ON PROBE is used.
Accuracy does not include the error of the clamp-on probe.

Crest factor	3 or less
Accuracy specification range	Minimum 1% of range; add ±5 dgt. when measuring at or below 5% of range

Resistance Measurement				DT4252, DT4253, DT4255, DT4256 only
Range	Accuracy	Measurement Current	Open-terminal Voltage	
600.0 Ω	±0.7 %rdg. ±5 dgt.	Approx. 200 μA	DC1.8 V or less	
6.000 kΩ	±0.7 %rdg. ±3 dgt. ¹	Approx. 100 μA		
60.00 kΩ		Approx. 10 μA		
600.0 kΩ		Approx. 1 μA		
6.000 MΩ	±0.9 %rdg. ±3 dgt. ¹	Approx. 100 nA		
60.00 MΩ	±1.5 %rdg. ±3 dgt. ¹	Approx. 10 nA		

Accuracy guarantee condition	After zero adjustment has been performed
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*1 : DT4252/4253 : ±5dgt.

Capacitance Measurement				DT4252 ,DT4253, DT4255, DT4256 only
Range	Accuracy	Measurement Current	Open-terminal Voltage	
1.000 μF	±1.9 %rdg. ±5 dgt.	Approx. 10 n/100 n/1 μA	DC1.8 V or less	
10.00 μF		Approx. 100 n/1 μ/10 μA		
100.0 μF		Approx. 1 μ/10 μ/100 μA		
1.000 mF		Approx. 10 μ/100 μ/200 μA		
10.00 mF	±5.0 %rdg. ±20 dgt.	Approx. 100 μ/200 μA		

Temperature			DT4253 only
Thermocouple Type	Range	Accuracy	
K	-40.0 to 400.0 °C	±0.5 %rdg. ±2 °C	

The optional K Thermocouple DT4910 is used. Accuracy does not include the error of the K thermocouple

Frequency	
Range	Accuracy
99.99 Hz	±0.1 %rdg. +1 dgt.
999.9 Hz	
9.999 kHz	
99.99 kHz (V AC Only)	

General Specifications

Durability	
Drop proof	YES
Operating temperature and humidity*1	-25°C to 65°C(DT4254/4255/4256) -10°C to 50°C(DT4252/4253)
Storage temperature and humidity*2	-30°C to 70°C(DT4254/4255/4256) -30°C to 60°C(DT4252/4253)
Applicable standards	Safety : EN61010, EMC: EN61326, Waterproof and dustproof: IP42

*1 : -10°C to 50°C(14°F to 122°F), Up to 40°C(104°F): at 80%RH or less(non-condensating),
40°C to 45°C(104°F to 113°F): at 60%RH or less(non-condensating),
45°C to 55°C(113°F to 131°F): at 50%RH or less (non-condensating)

*1 : Up to 40°C(104°F): at 80%RH or less(non-condensating),
40°C to 65°C(104°F to 149°F): reduces linearly 80%rh to 25%rh or less

*2 : 80%RH or less (non-condensating)

Dimensions/Mass
84mm(W)×174mm(H)×52mm(D)(3.31"W 6.85"H 2.05"D)
390g (including batteries and holster) (13.8 oz.)

Pocket DT4221/DT4222 /DT4223 /DT4224

(Accuracy guaranteed for 1 year, Post-adjustment accuracy guaranteed for 1 year)

DC Voltage		
Range	Accuracy	Input Impedance
600.0 mV	±0.5 %rdg. ±5 dgt.	11.2 MΩ ± 2.0 %
6.000 V		
60.00 V		10.3 MΩ ± 2.0 %
600.0 V		10.2 MΩ ± 1.5 %

AC Voltage			
Range	Accuracy		Input Impedance
	40 to 500Hz	500 or more to 1kHz	
6.000 V	±1.0 %rdg. ±3 dgt.	±2.5 %rdg. ±3 dgt.	11.2 MΩ ± 2.0%/100 pF or less
60.00 V		±2.0 %rdg. ±3 dgt.	10.3 MΩ ± 2.0 %/100 pF or less
600.0 V			10.2 MΩ ± 1.5 %/100 pF or less
Crest factor	3 up to 4000 counts and reduces linearly to 2 at 6000 counts.		
Accuracy specification range	For ACV, minimum 1% of range; add ±5 dgt. when measuring at or below 5% of range With the filter ON, the accuracy is not specified in 100Hz/500Hz or more		

AUTO V (Identification) DT4221, DT4223 only			
Range	Accuracy		Input Impedance
	DC, 40 to 500 Hz	500 or more to 1kHz	
600.0 V	±2.0 %rdg. ±3 dgt.	±4.0 %rdg. ±3 dgt.	900 kΩ ± 20 %
Crest factor	3 up to 4000 counts and reduces linearly to 2 at 6000 counts.		
Accuracy specification range	For ACV, minimum 1% of range; add ±5 dgt. when measuring at or below 5% of range With the filter ON,the accuracy is not specified in 100Hz/500Hz or more		

Electric Charge DT4221, DT4223 only	
Detection Voltage Range	Detection Target Frequency
AC80 V to AC600 V	50 Hz / 60 Hz

During voltage detection, a continuous buzzer sounds.

Continuity Check			
Range	Accuracy	Measurement Current	Open-terminal Voltage
600.0 Ω	±1.0 %rdg. ±5 dgt.	Approx. 200 μA	DC1.8 V or less (DT4221 / DT4222) DC2.0 V or less (DT4223 / DT4224)
Continuity ON threshold		Approx. 25Ω or less (continuous buzzer sound)	
Continuity OFF threshold		Approx.245Ω or more	

General Specifications

Durability	
Drop proof	YES
Operating temperature and humidity*1	-10°C to 50°C (DT4221, DT4222) -10°C to 65°C (DT4223, DT4224)
Storage temperature and humidity*2	-30°C to 60°C (DT4221, DT4222) -30°C to 70°C (DT4223, DT4224)
Applicable standards	Safety : EN61010, EMC: EN61326, Waterproof and dustproof: IP42

*1 : -10°C to 50°C(14°F to 122°F), Up to 40°C(104°F): at 80%RH or less(non-condensating),
40°C to 45°C(104°F to 113°F): at 60%RH or less(non-condensating),
45°C to 65°C(113°F to 122°F): at 50%RH or less (non-condensating)

*2 : 80%RH or less (non-condensating)

Dimensions/Mass
72mm(W)×149mm(H)×38mm(D) (2.83"W 5.87"H 1.50"D)
190g (including batteries and holster) (6.7 oz.)

Safety	
Maximum rated voltage between input terminals and ground	CATIII1000 V/ CATIV600 V
Maximum rated voltage between terminals	Between the V and COM terminals : DC1000 V/ AC1000 V*1
Maximum rated current between terminals	Between the A and COM terminals : DC10 A/ AC10 A (DT4252/DT4256) Between the μA, mA and COM terminals : DC60 mA (DT4253 only)

*1 : DT4254 ---- DC1700 V/AC1000 V

Your instrument can be used to measure voltages

in excess of 1000 V DC if and only if both of the following conditions are satisfied:

1. The circuit under measurement is isolated from the commercial power grid.
2. The circuit under measurement is isolated from ground.

Accessories

TEST LEAD L9207-10 / Instruction Manual / LR03 Alkaline battery×4
Holster (attached to the instrument, with a test lead holder)

Diode Check DT4222, DT4224 only			
Range	Accuracy	Measurement Current	Open-terminal Voltage
1.500 V	±0.9 %rdg. ±5 dgt.	Approx.0.5 mA (DT4222) Approx.0.2 mA (DT4224)	DC2.5 V or less

Resistance Measurement DT4222, DT4223, DT4224 only			
Range	Accuracy	Measurement Current	Open-terminal Voltage
600.0 Ω	±0.9 %rdg. ±5 dgt.	Approx.200 μA	DC1.8 V or less (DT4222)
6.000 kΩ		Approx.100 μA	
60.00 kΩ		Approx.10 μA	
600.0 kΩ		Approx.1 μA	DC2.0 V or less (DT4223 / DT4224)
6.000 MΩ		Approx.100 nA	
60.00 MΩ	±1.5 %rdg. ±5 dgt.	Approx.10 nA	
Accuracy guarantee condition		After zero adjustment has been performed	

Capacitance Measurement DT4222, DT4224 only			
Range	Accuracy	Measurement Current	Open-terminal Voltage
1.000 μF	±1.9 %rdg. ±5 dgt.	Approx.10 n/100 n/1 μA	DC1.8 V or less (DT4222)
10.00 μF		Approx.100 n/1 μ/10 μA	
100.0 μF		Approx.1 μ/10 μ/100 μA	
1.000 mF		Approx.10 μ/100 μ/200 μA	DC2.0 V or less (DT4223 / DT4224)
10.00 mF	±5.0 %rdg. ±20 dgt.	Approx.100 μ/200 μA	

Frequency	
Range	Accuracy
99.99 Hz	±0.1 %rdg. +2 dgt.
999.9 Hz	
9.999 kHz	

Safety	
Maximum rated voltage between input terminals and ground	CAT III 600V/ CAT IV300V
Maximum rated voltage between terminals	Between the V and COM terminals : 600 V DC/AC

Accessories

TEST LEAD DT4911 / Instruction Manual / LR03 Alkaline battery×1
Holster (attached to the instrument, with a test lead holder.)

L9207-10 / DT4911 Options

DT4280/DT4250 Series (Bundled accessory)



TEST LEAD L9207-10

Cable length 90 cm (2.9527 ft)
with one each red and black caps

with cap
CAT III 1000V/CAT IV 600V
without cap
CAT II 1000V

DT4220 Series (Bundled accessory)

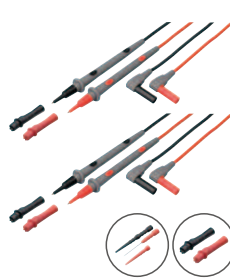


TEST LEAD DT4911

Cable length 54cm (1.77 ft)
with one each red and black caps

with cap
CAT IV 300V/ CAT III 600V
without cap
CAT II 600V

L4933 and L4934 probe tips
(at right) can be used
on L9207-10/DT4911 test leads.



DC70V/AC33V

CONTACT PIN SET L4933



CAT II 600V
CAT III 300V

SMALL ALLIGATOR CLIP SET L4934

L4930 Options

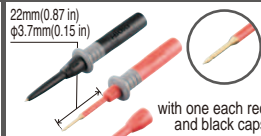
Compatible DMMs: DT4250 Series / DT4280 Series



Length : 1.2m (3.937 ft)

CONNECTION CABLE L4930

Probe tips (at right) can be
used on L4930 connection
cables.

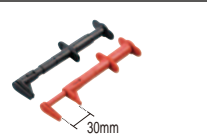


with one each red
and black caps
CAT III 600V (with cap)
CAT II 600V (without cap)
TEST PIN SET L4938



CAT III 1000V
CAT IV 600V

ALLIGATOR CLIP SET L4935



CAT III 600V

BUS BAR CLIP SET L4936



Magnet
φ6mm (0.24 in)

CAT III 1000V

MAGNETIC ADAPTER SET L4937



CAT III 600V
BREAKER PIN L4939



CAT III 1000V / CAT IV 600V
with one each red and black caps
TEST PIN SET L4932



CAT III 1000V

GRABBER CLIP 9243



CAT III 1000V
CAT IV 600V
Length : 1.5m (4.9212 ft)
With coupling connectors
EXTENSION CABLE SET L4931

AC CLAMP ON PROBES for DT4281, DT4253, DT4255, DT4256 (Adapter 9704 required for connection)

Product appearance			
Model number	9010-50	9018-50	9132-50
Rated current	AC 10/20/50/100/200/500 A		AC 20/50/100/200/500/1000A
Amplitude accuracy (45 to 66Hz)	±2% rdg. ±1% f.s.	±1.5% rdg. ±0.1% f.s.	±3% rdg. ±0.2% f.s.
Frequency characteristics	40Hz to 1kHz:±6% rdg.	40Hz to 3kHz:±1% rdg.	40Hz to 1kHz:±1% rdg.
Output rate	AC 0.2 V f.s. (For each range)		
Max. circuit voltage	AC600 V (50/60Hz)		
Diameter	φ46mm (1.81 in) or less		φ55mm (2.17 in) or less, 80×20mm (3.15×0.79 in)
Dimensions, mass	78W×188H×35D mm (3.07W × 7.40H × 1.38D in) 420g (14.8oz.), cord length 3m (9.84 ft)		100W×224H×35D mm (3.94W × 8.82 H × 1.38D in) 600g (21.1oz.), cord length 3m (9.84 ft)

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



CONVERSION ADAPTER 9704

Other options



THERMOCOUPLES (K) DT4910

- Thermal junction form: exposed weld
- Sensor length: approx. 800 mm
- Measurement temperature range
-40 to 260°C
- Allowable tolerance: ±2.5°C



COMMUNICATION PACKAGE (USB) DT4900-01

- Communication cable
- Communication adapter
- PC software
- Instruction manual
- OS: Windows 8.1/8/7, Vista
(SP1 or later)



MAGNETIC STRAP Z5004



MAGNETIC STRAP Z5020



CARRYING CASE C0200

DT4220 Series



CARRYING CASE C0202

DT4250/DT4280 Series



CARRYING CASE C0201

DT4250 Series



CARRYING CASE 3853

DT4250 Series

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