












DT4200 Series Basic Comparison

Model category	High-end models		New standard models	Standard models				Pocket models			
Measurement type	Electrical work	General use	General use/ mega Solar	General use	Air conditioning/ instrumentation	Electrical work	General use	Electrical work	General use	Electrical work	General use
Model	DT4281	DT4282	DT4261 /DT4261-90*1	DT4252	DT4253	DT4255	DT4256	DT4221	DT4222	DT4223	DT4224
Appearance											
Basic Characteristics											
True RMS	✓		✓	✓				✓			
DC V basic accuracy	±0.025% rdg. ±2 dgt.		±0.15% 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, 2000V*2	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				6 V to 600 V			
DC V + AC V	6 V to 1000 V		6 V to 1000 V	n/a				n/a			
DC A current	600 µA to 600 mA	600 µA to 10 A	600 mA to 10 A	6 A to 10 A	60 µA to 60 mA	n/a	60 mA to 10 A	n/a			
AC A current	600 µA to 600 mA	600 µA to 10 A	600 mA to 10 A	6 A to 10 A	n/a		60 mA to 10 A	n/a			
AC clamp	10 A to 1000 A	n/a	10 A to 1000 A	n/a	10 A to 1000 A		n/a				
Resistance	60 Ω to 600 MΩ		600 Ω to 60 MΩ	600 Ω to 60 MΩ				n/a	600 Ω to 60 MΩ		
Temperature	-40°C to 800°C		n/a	n/a	-40°C to 400°C		n/a	n/a			
Capacitance	1 nF to 100 mF		1 µF to 10 mF	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 99 kHz				99 Hz to 9.9 kHz			
Continuity check	✓		✓	✓				✓			
Diode check	✓		✓	✓				n/a	✓	n/a	✓
Conductance	n/a	✓	n/a	n/a				n/a			
Voltage detection	n/a		n/a	n/a	n/a		✓	✓	n/a	✓	n/a
Additional Functions											
AUTO AC/DC V	n/a		✓	n/a	✓		✓	n/a	✓	n/a	
Peak measurement	DC/AC		DC/AC	n/a				n/a			
Low-pass filter	Analog filter Cut-off: 630 Hz		Digital filter Pass-band: 100/500 Hz	Digital filter Pass-band: 100/500 Hz				Digital filter Pass-band: 100/500 Hz			
Display update setting	✓		n/a	n/a				n/a			
Hold display value	AUTO/MANUAL		AUTO/MANUAL	AUTO/MANUAL				MANUAL	AUTO/MANUAL		
Max/Min value display	✓ (Excluding average value display)		✓	✓				n/a			
Relative display	✓		n/a	✓				✓			
Decibel conversion	✓		n/a	n/a				n/a			
Percentage conversion display	✓		n/a	n/a	✓	n/a		n/a			
DC voltage polarity check	✓		n/a	n/a	n/a		✓	n/a			
Data storage											
Capacity	Max 400 data		n/a	n/a				n/a			
USB communication*3	✓		✓	✓				n/a			
Bluetooth® communication*4	n/a		✓	n/a				n/a			
Operating time											
Continuous operating time	Approx. 100 hours*5		Approx. 130 hours*6	Approx. 130 hours				Approx. 40 hours	Approx. 35 hours		
Power supply	Alkaline (LR6) battery x4/ Manganese(R6P) battery x4		Alkaline (LR6) battery x3	Alkaline (LR03) battery x4				Alkaline (LR03) battery x1			
Display											
Back light	✓		✓	✓				✓			
Dual display	✓		✓	✓				n/a			
Bar graph display	n/a		✓	✓				✓			
Safety											
Safety standard categories	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 600 V, CAT IV 300 V			
Mis-insertion prevention shutters	✓		✓	n/a				n/a			
Circuit breaker false trip prevention	n/a		n/a	n/a				n/a	✓		

*1. Z3210 set product *2. 2000 V is supported only when using the optional DC HIGH VOLTAGE PROBE P2000

*3. Requires optional DT4900-01 Communication Package *4. Requires optional Z3210 wireless adapter *5. When using four AA alkaline batteries *6. When Z3210 is not installed

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)

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		10.2 MΩ ±2% // 100 pF or less
1000.0 V		

AC Voltage						
Range	Accuracy					
	20Hz to 45Hz	45Hz to 65Hz	65Hz to 1kHz	1kHz to 10kHz	10kHz to 20kHz	20kHz to 100kHz
60.000 mV	±1.3% rdg. ±60 dgt.	±0.4% rdg. ±40 dgt.	±0.0% rdg. ±40 dgt.	±0.9% rdg. ±40 dgt.	±1.5% rdg. ±40 dgt.	±20% rdg. ±80 dgt.
600.00 mV	±1% rdg. ±60 dgt.	±0.2% rdg. ±25 dgt.	±0.3% rdg. ±25 dgt.	±0.4% rdg. ±25 dgt.	±0.7% rdg. ±40 dgt.	±3.5% rdg. ±40 dgt.
6.0000 V	±1% rdg. ±60 dgt.					
60.000 V	Undefined	±0.2% rdg. ±25 dgt.	±0.3% rdg. ±25 dgt.	±0.4% rdg. ±25 dgt.	±0.7% rdg. ±40 dgt.	±3.5% rdg. ±40 dgt.
600.00 V						
1000.0 V						

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

Input impedance: 1 MΩ ±4% // 100 pF or less

Crest factor: 3 or less (1.5 or less for the 1000.0 V range)

Accuracy specification range: 5% or more of each range

With the filter ON, accuracy is defined only for frequencies 100 Hz or less. Furthermore, 2% rdg. is added.

DC A 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		±0.05% rdg. ±25 dgt.	
600.00 mA	±0.15% rdg. ±5 dgt.	±0.15% rdg. ±5 dgt.	1 Ω
6.0000 A ⁺¹		±0.15% rdg. ±5 dgt.	
10.000 A ⁺¹	±0.2% rdg. ±5 dgt.	±0.2% rdg. ±25 dgt.	10 mΩ
		±0.2% rdg. ±5 dgt.	

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

Shunt resistance: μA Range 101 Ω, mA Range 1Ω, A Range 10 mΩ

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%	DC 2.5 V or less

Continuity threshold: 20 Ω (default), 50 Ω, 100 Ω, 500 Ω

Diode Check			
Range	Accuracy	Measurement Current	Open-terminal Voltage
3.600 V	±0.1% rdg. ±5 dgt.	1.2 mA or less	DC 4.5 V or less

Forward threshold: 0.15 V, 0.5 V (default), 1 V, 1.5 V, 2 V, 2.5 V, 3 V

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 Hz to 65 Hz	65 Hz 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%	DC 2.5 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%	DC 2.5 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%	DC 2.5 V or less
10.00 nF	±1% rdg. ±5 dgt.		
100.0 nF			
1.000 μF	±2% rdg. ±5 dgt.	680 μA ±20%	DC 3.1 V or less
10.00 μF			
100.0 μF			DC 2.1 V or less
1.000 mF			
10.00 mF			
100.0 mF	±2% rdg. ±20 dgt.		

Temperature		
Thermocouple Type	Range	Accuracy
K	-40.0°C to 800.0°C (-40.0°F 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	
500.00 kHz	±0.005% rdg. +3 dgt.

Measurement range: 0.5 Hz or more ([---] is displayed when frequency is less than 0.5 Hz)

Pulse width: 1 μs or more (DUTY ratio is 50%)

With the filter ON, accuracy is defined only for frequencies 100 Hz 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
DC V	4 ms or more (single)	±2.0% rdg. ±40 dgt.
	1 ms or more (repeated)	±2.0% rdg. ±100 dgt.
Other than DC V	1 ms or more (single)	±2.0% rdg. ±40 dgt.
	250 μs 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)

High-End 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/Weight

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

Safety	
Maximum rated voltage between input terminals and ground	CAT III 1000 V, CAT IV 600 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: 600 mA DC/600 mA AC Between the A and COM terminals: 10 A DC/10 A AC

Accessories

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

New Standard NEW DT4261

(Accuracy guaranteed for 1 year)

DC Voltage		
Range	Accuracy*1	Input Impedance
600.0 mV	±0.15% rdg. ±5 dgt.	11.3 MΩ ± 2.0%
6.000 V		
60.00 V	±0.15% rdg. ±2 dgt.	10.4 MΩ ± 2.0%
600.0 V		
1000 V	±0.15% rdg. ±5 dgt.	10.3 MΩ ± 1.5%
2000 V*2	±0.5% rdg. ±5 dgt.	20 MΩ ± 5.0%

*1. Add ±1 dgt. when measuring at or below 5% of range

*2. 2000 V is supported only when using the optional DC HIGH VOLTAGE PROBE P2000

AC Voltage			
Range	Accuracy		Input Impedance
	40 Hz to 500 Hz	500 Hz to 1 kHz	
6.000 V	±0.9% rdg. ±3 dgt.	±1.5% rdg. ±3 dgt.	11.3 MΩ ± 2.0% // 100 pF or less
60.00 V			10.4 MΩ ± 2.0% // 100 pF or less
600.0 V			10.3 MΩ ± 1.5% // 100 pF or less
1000 V			
Crest factor	3 at up to 4000 counts and reduces linearly to 2 at 6000 counts. 1000 V range only: 2 at up to 750 counts, linearly decreasing to 1.5 at 1000 counts.		
Accuracy specification range	For ACV, minimum 1% of range; add ±5 dgt. when measuring at or below 5% of range.		

DC A Measurement		
Range	Accuracy	Input Impedance
600.0 mA	±0.5% rdg. ±3 dgt.	35 mΩ ±30%
6.000 A		
10.00 A		
Accuracy specification range	Add ±2 dgt. when measuring at or below 5% of range.	

AC A Measurement			
Range	Accuracy		Input Impedance
	40 Hz to 500 Hz	500 Hz to 1 kHz	
600.0 mA	±1.4% rdg. ±3 dgt.	±1.8% rdg. ±3 dgt.	35 mΩ ±30%
6.000 A			
10.00 A			
Crest factor	3 at 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.		

Continuity Check			
Range	Accuracy	Measurement Current	Open-terminal Voltage
600.0 Ω	±0.7% rdg. ±5 dgt.	Approx. 200 μA	DC 2.0 V or less
Continuity ON threshold	Approx. 25 Ω or less (continuous buzzer sound, red backlight on)		
Continuity OFF threshold	Approx. 245 Ω or more (buzzer sound off, red backlight off)		

Diode Check			
Range	Accuracy	Measurement Current	Open-terminal Voltage
1.800 V	±0.5% rdg. ±5 dgt.	Approx. 200 μA	DC 2.0 V or less
Forward threshold	Intermittent buzzer sound at 0.15 V to 1.8 V, continuous buzzer sound at less than 0.15 V, red backlight on.		

AC Clamp (AC Current)		
Range	Accuracy	
	40 Hz to 500 Hz	500 Hz to 1 kHz
10.00 A	±0.9% rdg. ±3 dgt.	±1.5% 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			
Range	Accuracy	Measurement Current	Open-terminal Voltage
600.0 Ω	±0.7% rdg. ±5 dgt.	Approx. 200 μA	DC 2.0 V or less
6.000 kΩ		Approx. 100 μA	
60.00 kΩ		Approx. 10 μA	
600.0 kΩ	±0.9% rdg. ±3 dgt.	Approx. 1 μA	
6.000 MΩ		Approx. 100 nA	
60.00 MΩ		Approx. 10 nA	

Accuracy guarantee condition After zero adjustment has been performed

Capacitance Measurement			
Range	Accuracy	Measurement Current	Open-terminal Voltage
1.000 μF	±1.9% rdg. ±5 dgt.	Approx. 10 nA, 100 nA, 1 μA	DC 2.0 V or less
10.00 μF		Approx. 100 nA, 1 μA, 10 μA	
100.0 μF		Approx. 1 μA, 10 μA, 100 μA	
1.000 mF		Approx. 10 μA, 100 μA, 200 μA	
10.00 mF	±5.0% rdg. ±20 dgt.	Approx. 100 μA, 200 μA	

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

New Standard General Specifications

Durability	
Drop proof	Yes
Operating temperature and humidity*1	-25°C to 65°C
Storage temperature and humidity*2	-30°C to 70°C
Applicable standards	Safety: EN61010, EMC: EN61326; Waterproof and dustproof: IP54*3

*1: 80% RH or less at up to 40°C (non-condensating), linearly decreases from 80% RH at 40°C to 25% RH or less at 65°C (non-condensating)
 *2: 80% RH or less (non-condensating) *3: Do not use in wet conditions.

Dimensions/Weight
87W x 185H x 47D mm (3.43"W x 7.28"H x 1.85"D), 480 g (16.9 oz.) (including batteries)

Safety	
Maximum rated voltage between input terminals and ground	CAT III 1000 V, CAT IV 600 V
Maximum rated voltage between terminals	Between the V and COM terminals: 1000 V DC/AC
Maximum rated current between terminals	Between the A and COM terminals: 10 A DC/10 A AC

Accessories

TEST LEAD L9300, Instruction Manual, LR6 alkaline battery x 3

Standard DT4252 / DT4253 / DT4255 / DT4256

(Accuracy guaranteed for 1 year)

DC Voltage		
Range	Accuracy	Input Impedance
High precision 600 mV range*1	±0.2% rdg. ±5 dgt.	10.2 MΩ ±1.5%
600.0 mV	±0.3% rdg. ±3 dgt.*2	11.2 MΩ ±2.0%
6.000 V		10.3 MΩ ±2.0%
60.00 V		10.2 MΩ ±1.5%
600.0 V		
1000 V		

*1. DT4252 only
 *2. DT4252, DT4256 only. DT4252, DT4253 : ±5 dgt.

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

AUTO V (Identification) DT4253, DT4255, DT4256 only			
Range	Accuracy		Input Impedance
	DC, 40 Hz to 500 Hz	500 Hz or more to 1 kHz	
600.0 V	±2.0% rdg. ±3 dgt.	±4.0% rdg. ±3 dgt.	900 kΩ ±20%
Crest factor	3 at up to 4000 counts and reduces linearly to 2 at 6000 counts.		
Accuracy specification range	For AC V, 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 100 Hz/500 Hz or more.		

DC A 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.*2	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.

AC A Measurement DT4252, DT4256 only			
Range	Accuracy		Input Impedance
	40 Hz to 500 Hz	500 Hz or more to 1 kHz	
600.0 mA*1	±1.4% rdg. ±5 dgt.	±1.8% rdg. ±5 dgt.	35 mΩ ±30%
6.000 A			
10.00 A			
Crest factor	3 at 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 DT4255, DT4256 only		
Range	Detection voltage range	Detection Target Frequency
Hi	AC 40 V to AC 600 V	50 Hz / 60 Hz
Lo	AC 80 V to AC 600 V	

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

Continuity Check			
Range	Accuracy	Measurement Current	Open-terminal Voltage
600.0 Ω	±0.7% rdg. ±5 dgt.	Approx. 200 μA	DC 1.8 V or less
Continuity ON threshold	Approx. 25 Ω or less (continuous buzzer sound, red LED lights)		
Continuity OFF threshold	Approx. 245 Ω or more		

Diode Check			
Range	Accuracy	Measurement Current	Open-terminal Voltage
1.500 V	±0.5% rdg. ±5 dgt.*1	Approx. 0.5 mA	DC 5.0 V or less
Forward threshold	Buzzer sound intermittently at 0.15 V to 1.5 V, the red LED flashes.		

*1. DT4255 : ±0.5% rdg. ±8 dgt.

AC Clamp (AC Current) DT4253, DT4255, DT4256 only	
Range	Accuracy
10.00 A	40 Hz to 1 kHz ±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			
Range	Accuracy	Measurement Current	Open-terminal Voltage
600.0 Ω	±0.7% rdg. ±5 dgt.	Approx. 200 μA	DC 1.8 V or less
6.000 kΩ		Approx. 100 μA	
60.00 kΩ		Approx. 10 μA	
600.0 kΩ	±0.7% rdg. ±3 dgt.*1	Approx. 1 μA	
6.000 MΩ		Approx. 100 nA	
60.00 MΩ	±1.5% rdg. ±3 dgt.*1	Approx. 10 nA	

Accuracy guarantee condition After zero adjustment has been performed.

*1. DT4252, DT4253 : ±5 dgt.

Capacitance Measurement			
Range	Accuracy	Measurement Current	Open-terminal Voltage
1.000 μF	±1.9% rdg. ±5 dgt.	Approx. 10 nA, 100 nA, 1 μA	DC 1.8 V or less
10.00 μF		Approx. 100 nA, 1 μA, 10 μA	
100.0 μF		Approx. 1 μA, 10 μA, 100 μA	
1.000 mF		Approx. 10 μA, 100 μA, 200 μA	
10.00 mF	±5.0% rdg. ±20 dgt.	Approx. 100 μA, 200 μA	

Temperature		DT4253 only
Thermocouple Type	Range	Accuracy
K	-40.0°C to 400.0°C (-40.0°F to 752.0°F)	±0.5% rdg. ±2°C

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

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

Standard General Specifications

Durability		Yes
Drop proof		Yes
Operating temperature and humidity ¹	-25°C to 65°C (DT4254, DT4255, DT4256) -10°C to 50°C (DT4252, DT4253)	
Storage temperature and humidity ²	-30°C to 70°C (DT4254, DT4255, DT4256) -30°C to 60°C (DT4252, DT4253)	
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/Weight
84W x 174H x 52D mm (3.31"W x 6.85"H x 2.05"D), 390 g (13.8 oz.) (including batteries and holster)

Safety		
Maximum rated voltage between input terminals and ground	CAT III 1000 V, CAT IV 600 V	
Maximum rated voltage between terminals	Between the V and COM terminals: DC 1000 V, AC 1000 V	
Maximum rated current between terminals	Between the A and COM terminals: DC 10 A / AC 10 A (DT4252, DT4256) Between the μ A and COM terminals: DC 60 mA (DT4253 only)	

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 x 4, Holster (attached to the instrument, with a test lead holder)

Pocket DT4221 / DT4222 / DT4223 / DT4224

(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		
600.0 V		

AC Voltage			
Range	Accuracy		Input Impedance
	40 Hz to 500 Hz	500 Hz or more to 1 kHz	
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 at up to 4000 counts and reduces linearly to 2 at 6000 counts.	
Accuracy specification range		For AC V, 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 100/500 Hz or more.	

AUTO V (Identification) DT4221, DT4223 only			
Range	Accuracy		Input Impedance
	DC, 40 Hz to 500 Hz	500 Hz or more to 1 kHz	
600.0 V	±2.0% rdg. ±3 dgt.	±4.0% rdg. ±3 dgt.	900 kΩ ±20%
Crest factor		3 at up to 4000 counts and reduces linearly to 2 at 6000 counts.	
Accuracy specification range		For AC V, 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 100/500 Hz or more.	

Electric Charge DT4221, DT4223 only	
Detection Voltage Range	Detection Target Frequency
AC 80 V to AC 600 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 μ A	DC 1.8 V or less (DT4221, DT4222) DC 2.0 V or less (DT4223, DT4224)
Continuity ON threshold		Approx. 25 Ω or less (continuous buzzer sound)	
Continuity OFF threshold		Approx. 245 Ω or more	

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)	DC 2.5 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 μ A	DC 1.8 V or less (DT4222)
6.000 kΩ		Approx. 100 μ A	
60.00 kΩ		Approx. 10 μ A	
600.0 kΩ		Approx. 1 μ A	DC 2.0 V or less (DT4223, DT4224)
6.000 MΩ		Approx. 100 nA	
60.00 MΩ		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 μ F	±1.9% rdg. ±5 dgt.	Approx. 10 nA, 100 nA, 1 μ A	DC 1.8 V or less (DT4222)
10.00 μ F		Approx. 100 nA, 1 μ A, 10 μ A	
100.0 μ F		Approx. 1 μ A, 10 μ A, 100 μ A	DC 2.0 V or less (DT4223, DT4224)
1.000 mF		Approx. 10 μ A, 100 μ A, 200 μ A	
10.00 mF	±5.0% rdg. ±20 dgt.	Approx. 100 μ A, 200 μ A	

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

Pocket 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/Weight
72W x 149H x 38D mm (2.83"W x 5.87"H x 1.50"D), 190 g (6.7 oz.) (including batteries and holster)

Safety	
Maximum rated voltage between input terminals and ground	CAT III 600 V, CAT IV 300 V
Maximum rated voltage between terminals	Between the V and COM terminals: 600 V DC/AC

Accessories

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

Models



High-end models		
Model no. (order code)	DT4281	DT4282



New standard model		
Model no. (order code)	DT4261	DT4261-90*

*Z3210 set product



Standard models				
Model no. (order code)	DT4252	DT4253	DT4255	DT4256



Pocket models				
Model no. (order code)	DT4221	DT4222	DT4223	DT4224

Accessories/Options

L9300 / L9207-10 / DT4911 Options (accessory)

DT4261
(Bundled accessory)

NEW

TEST LEAD L9300
Cable length 95 cm (3.12 ft)
Integrated cap and protective finger guard

- Exposed tip metal pin: short
CAT III 1000 V, CAT IV 600 V
- Exposed tip metal pin: long

DT4280/DT4250 Series
(Bundled accessory)

TEST LEAD L9207-10
Cable length 90 cm (2.95 ft)
with one each red and black caps

- with cap
CAT III 1000 V, CAT IV 600 V
- without cap
CAT II 1000 V

DT4220 Series
(Bundled accessory)

TEST LEAD DT4911
Cable length 54 cm (1.77 ft)
with one each red and black caps

- with cap
CAT IV 300 V, CAT III 600 V
- without cap
CAT II 600 V

The L4933 and L4934 can be attached to the tip of the L9300, L9207-10 and DT4911. When attaching them, make sure they are in the measuring category-II-state (with the caps removed for the L9207-10 and DT4911).

CONTACT PIN SET L4933
50 mm
DC 70 V
AC 33 V

SMALL ALLIGATOR CLIP SET L4934
CAT II 600 V
CAT III 300 V

Option for DT4261: DC HIGH VOLTAGE PROBE P2000

NEW


DC HIGH VOLTAGE PROBE P2000
Cable length 150 cm (4.92 ft)*
*Probe side
CAT III 2000 V

P2000 Specifications		Operating environment	
Maximum input voltage	DC 2000 V (max. rated voltage between INPUT H-INPUT L)	Indoor use, pollution degree 2, altitude up to 2000 m	
Maximum rated voltage to earth	2000 V (Measurement Category III) anticipated transient overvoltage 15,000 V 1000 V (Measurement Category IV) anticipated transient overvoltage 12,000 V	Operating temperature and humidity range	Temperature: -25°C to 65°C (-13°F to 149°F) Humidity: -25°C to 40°C (-13°F to 104°F), up to 80% RH (non-condensing) 40°C to 65°C (104°F to 149°F), (the operation humidity limit falls linearly from 40°C 80% RH to 65°C 25% RH, given that there is no condensation)
Input resistance	20 MΩ ± 1.0% (between INPUT H – INPUT L)	Storage temperature and humidity range	-30°C to 70°C (-22°F to 158°F) 90% RH or less (non-condensing)
Output ratio	Depends on the input impedance of the connected device (example: 1/10 when a device with an input impedance of 10 MΩ is connected)	Applicable standards	Safety EN 61010
Overload protection	DC/AC 2200 V 1 minutes (between INPUT H – INPUT L) DC/AC 600 V 1 minutes (between OUTPUT H – OUTPUT L)	Product warranty period	3 years (probe body and cable part are not covered by warranty)
Secondary terminal	4 mm banana terminal	Accessories	L4943 connection cable*, Strap belt, Strap buckles x 2, CO205 carrying case, "Instruction Manual", "Usage Precautions"

*L4930, L4931 can be used to extend the cable

L4930 Options

Compatible DMMs: DT4261, DT4250 Series, DT4280 Series



CONNECTION CABLE L4930
Length : 1.2 m (3.937 ft)

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



22 mm(0.87 in)
φ3.7 mm(0.15 in)

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




CAT III 1000 V
CAT IV 600 V
ALLIGATOR CLIP SET L4935




30 mm
(1.18 in)
CAT III 600 V
BUS BAR CLIP SET L4936



Magnet
φ6 mm(0.24 in)
CAT III 1000 V
MAGNETIC ADAPTER SET L4937




22 mm(0.87 in)
φ3.7 mm(0.15 in)
48 mm(1.89 in)
φ2.6 mm(0.15 in)
CAT III 600 V
BREAKER PIN L4939



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






CAT II 1000 V
GRABBER CLIP L9243



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

AC CLAMP ON PROBES for DT4281, DT4261, DT4253, DT4255, DT4256 (Adapter 9704 required for connection)

Product appearance	 CAT III 600 V	 CAT III 600 V	 CAT III 600 V
Model number	9010-50	9018-50	9132-50
Rated current	AC 10 A, 20 A, 50 A, 100 A, 200 A, 500 A	AC 10 A, 20 A, 50 A, 100 A, 200 A, 500 A	AC 20 A, 50 A, 100 A, 200 A, 500 A, 1000 A
Amplitude accuracy (45 Hz to 66 Hz)	±2% rdg. ±1% f.s.	±1.5% rdg. ±0.1% f.s.	±3% rdg. ±0.2% f.s.
Frequency characteristics	40 Hz to 1 kHz:±6% rdg.	40 Hz to 3 kHz:±1% rdg.	40 Hz to 1 kHz:±1% rdg.
Output rate	AC 0.2 V f.s. (For each range)		
Max. circuit voltage	AC 600 V (50/60 Hz)		
Diameter	φ46 mm (1.81 in) or less		φ55 mm (2.17 in) or less, 80 × 20 mm (3.15 × 0.79 in)
Dimensions, mass	78W × 188H × 35D mm (3.07"W × 7.40"H × 1.38"D), 420 g (14.8 oz.), cord length 3 m (9.84 ft)		100W × 224H × 35D mm (3.94"W × 8.82"H × 1.38"D), 600 g (21.1 oz.), cord length 3 m (9.84 ft)

Adapter Model 9704 is required to connect AC CLAMP ON PROBES 9010-50, 9018-50 and 9132-50 to the DT4281, DT4261, 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 10



MAGNETIC STRAP Z5004 **MAGNETIC STRAP Z5020**



WIRELESS ADAPTER Z3210

For DT4261
Enables Bluetooth® communication





CARRYING CASE C0200
DT4220 Series



CARRYING CASE C0202
DT4250, DT4280 Series, DT4261



CARRYING CASE C0201
DT4250 Series


NEW




CARRYING CASE C0207
Bag type for use with all field products


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