



# HIOKI

## DIGITAL MULTIMETER DT4281/DT4282

DMM



### Speedy Performance of Professional Testing

Two models provide high accuracy and fast response

**DC V**  
**± 0.025%**  
Basic Accuracy

**AC V**  
**20 to 100kHz**  
Frequency Characteristics



Rich feature set to improve efficiency

# LPF Memory

**True RMS**

No 'A' Terminal

**Safe, durable design**

**CAT IV 600V**

### DT4281

Current measurement available with optional clamp.

### DT4282

**Anti-Shock Design – Drop Proof** Survives 1m drop to concrete.



**Terminal Shutters – prevent erroneous test lead insertion** Unnecessary terminals are closed by the rotary selector.



ISO 9001  
JMI-0216



ISO 14001  
JQA-E-90091



[www.hioki.com](http://www.hioki.com)

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



**Broad operating temperature range**

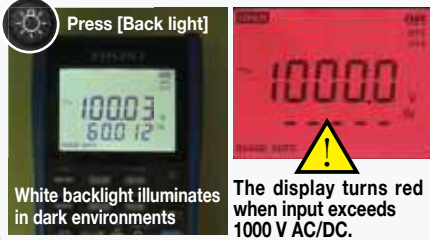
**-15°C to 55°C**

# Improves efficiency with useful functions suitable for professional testing such as new energy development and facility maintenance

Additional Function	General Description
Filter function	Harmonic noise removal, $f_c = 1 \text{ kHz}$ AC voltage, AC current, AC current w/clamp input, DCV + ACV measurement
Hold display value	Press [HOLD] to hold the displayed value.
Auto Hold	Automatically holds the display when the measured value becomes stable (within the set threshold range).
Relative display	Press [REL] to display relative values, taking the currently measured value as the reference value.

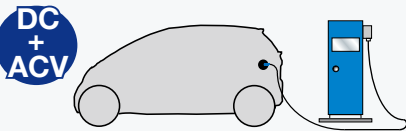
Additional Function	General Description
Max/Min value display	Press [MAX/MIN] to display the maximum and minimum values since the start of measurement.
Sampling Settings	Display update: Normal 5 times/s or Slow 1 time/s (display stabilization)
Measurement memory	Manually store measured values internally (400 data points)
USB communications	Acquire measurement data on a PC using optional DT4900 Communications Package
Decibel conversion	Shows decibel values converted to standard AC voltage (dBm/dBV)
Percentage conversion display	Displays 4 to 20 mA (or 0 to 20 mA) signals converted to 0 to 100%

## Back light Large, easy-to-see display



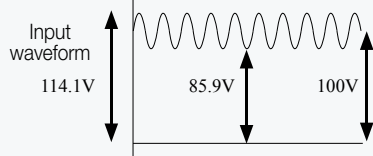
Direct current supply system

## Ideal for checking ripple voltage in DC supply systems



### Peak measurement function & DC+AC voltage measurement

Capture ripple voltage component on direct current signals.



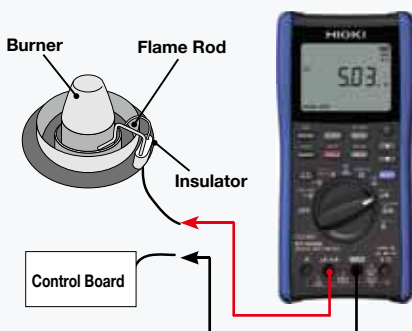
#### DC+AC V range

- DC+AC measurement\* ▶ 100.49V
- +PEAK measurement ▶ 114.10V
- PEAK measurement ▶ 85.90V

$$*DC+AC = \sqrt{(AC)^2 + (DC)^2}$$

## DC $\mu\text{A}$ Includes $\mu\text{A}$ DC range for burner system inspection

Select the 600.00  $\mu\text{A}$  DC range for burner flame current measurement.



For Voltage and Resistance functions only V $\Omega$  and COM terminals open.

Prevent Erroneous Insertion

## Terminal shutters prevent test leads from being inserted by mistake

Incorrect function settings and terminal connections are prevented. When the selector is turned to a current measurement position, only the current measurement terminals are open.



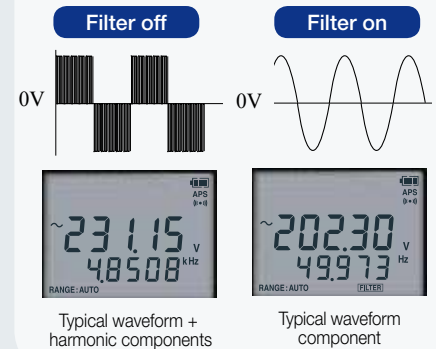
For the 'A' range,\* only the 'A' and COM terminals are accessible; and for the  $\mu\text{A}/\text{mA}$  ranges, only the  $\mu\text{A}/\text{mA}$  and COM terminals are accessible.

\* DT4282 only

## LPF 1kHz Optimized for inverter system measurements

### Low-pass filter cuts harmonic waveform components

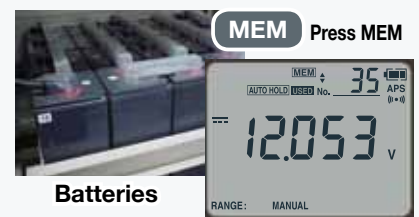
The (1-kHz cutoff) low-pass filter function cuts high harmonic components when measuring inverter secondary output voltage.



## Enhance UPS maintenance efficiency

### 1 Save on site (Up to 400 data points)

Store battery cell voltage in internal memory on site, for later recall and display.



Batteries

### 2 Data Communications function

Transfer stored data from internal memory using the optional communications package. Data can be saved in text format.

### Communications Software and Other Functions

- Saves graphic display and files at specified intervals (or manually).
- Real-time measurement values are displayed on the PC screen.

Communication Package DT4900(option)

#### Operating Environment

- Interface: USB
- OS: Windows 7, Vista (SP1 or later), XP (SP2 or later)



## General Specifications

Display	Main and Sub displays: 5-digit LCDs with '-' polarity indicator; 3-digit data count; Over-Range: blinks "OVER"
Display refresh rates	5 times/s (0.05 to 2 times/s for electrostatic capacitance, depending on measured value; 1 time/s for temperature; 2.5 times/s for DC+AC)
Power supply/Continuous operating time	Alkaline (LR6) battery ×4: Approx. 100 hours; Manganese(R6P) battery ×4: Approx. 30 hours [Representative value: DCV function/Backlight off]
Auto Power Save	Approx. 15 min. (from last operation); beeper sounds and [APS] blinks 10s before power-off
Dielectric strength	Between all input terminals and case: 8.5kV AC (sine wave, 50/60 Hz, 60 seconds)
Maximum rated voltage between terminals	Between the V and COM terminals : 1000 V DC/AC or $2 \times 10^7$ V·Hz
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 (continuous)
Maximum rated voltage between input terminals and ground	1000V (Measurement category III), 600V (Measurement category IV), Anticipated transient overvoltage: 8000V
Dimensions	Approx. 93W×197.4H×53.4D mm (3.66"W 5 7.77"H 5 2.36"D), Approx.680g (24 oz.) (including batteries)
Operating temperature and humidity	-15°C to 55°C(-22°F to 140°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)
Storage temperature and humidity	-30°C to 60°C(-15°F to 131°F), at 80%RH or less (non-condensating)
Applicable standards	Safety : Main unit - EN61010-1; probes - EN61010-31; DMM only - EN61010-2-033; EMC: EN61326-2-2, Waterproof and dustproof: IP40
Accessories	Test Leads L9207-10, Instruction Manual, LR6 alkaline battery×4 (unloaded)

## L9207-10 Options

### L9207-10 (Bundled accessory)



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

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

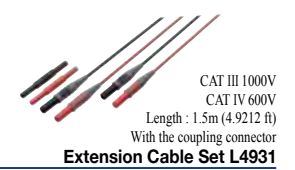
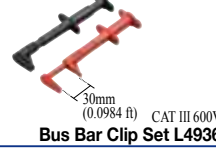


## L4930 Options



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

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



## AC Clamp-On Probes for DT4281 (Adapter 9704 required for connection)

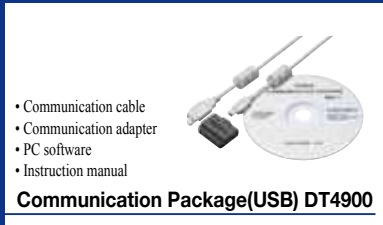
Product appearance	CAT III 600V	CAT III 600V	CAT III 600V
Model number	9010-50	9018-50	9132-50
Rated current	AC 10/20/50/100/200/500 A		AC 20/50/100/200/500/1000A
Amplitude accuracy (45 to 66Hz)	±2% rdg. ±1% f.s.	±1.5% rdg. ±0.1% f.s.	±3% rdg. ±0.2% f.s.
Frequency characteristics	40Hz to 1kHz:±6% rdg.	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 or less		φ55mm or less, 80×20mm
Dimensions, mass	78W×188H×35D mm (0.25W×0.61H×0.11D ft), 420g (14.8oz.), cord length 3m (9.84 ft)		100W×224H×35D mm(0.32W×0.73H×0.11D ft), 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 9032-50 to the DT4281.



Conversion Adapter 9704

## Other options



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

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