HIOKI

2003

3256-50 / 3257-50
3256-51 / 3257-51

(MEAN, CAT II 1000V, CAT III 600V)
(TRMS, CAT III 1000V)

DIGITAL HiTESTER

Field measuring instruments

Lock your troubles away

Shutter mechanism

Voltage ranges

10A range

Fail-safe !

CE

http://www.hioki.co.jp/

Complete safety and a reliability that you can count on...

Designed with an emphasis on safety

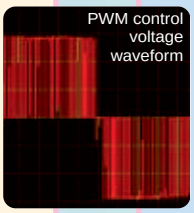
3256 MEAN Value

3257 True RMS

2 types of DMMs for measuring differences in distorted waveforms

■Measures RMS values of commercial mains power frequencies

Makes RMS measurements that exclude harmonic components.



■Accurately measures harmonic wave components

Accurate measurements are guaranteed for components in the range from 50 to 500 Hz .

●Crest factor: 3.0 max.
(Except 420mV range)

Behind-the-scene safety features

The 3256 and 3257 models bear the CE mark meaning that they conform to standards such as the IEC61010-1 international safety standard and other EMC-related standards. Moreover, these units are designed with an emphasis on safety. In addition to a shutter mechanism that prevents incorrect test lead connection, the current terminals of the units come equipped with standard fast blow fuses.

CAT Ⅲ 600 V　CAT Ⅱ 1000 V

Overload protection up to 600 V
(1000 V for voltage and resistance ranges)

Voltage and resistance ranges: overload protection of up to 1000 V DC, 1000 V AC rms(sin) or 10^7 V•Hz

Current range: fuse protection

0.5 A / 700 VAC　50 kA interrupting capacity

10 A / 600 VAC　10 kA interrupting capacity

CAT Ⅲ 1000V

Overload protection up to 1000 V

Voltage and resistance ranges: overload protection of up to 1000 V DC, 1000 V AC rms(sin) or 10^7 V•Hz

Current range: fuse protection

0.44 A / 1000 V　10 kA interrupting capacity

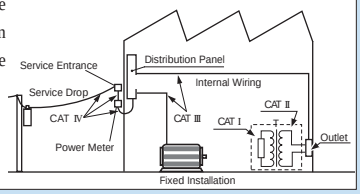
11 A / 1000 V　10 kA interrupting capacity

Overvoltage category (CAT)

In order to promote the safe use of measuring instruments, safety level standards are classified under IEC60664 into overvoltage categories CAT I through IV, depending on the location where the instrument is to be used. Categories with a higher number indicate an electrical environment that has high levels of instantaneous energy. Therefore, a measuring instrument designed for CAT Ⅲ can endure higher instantaneous energy than an instrument designed for CAT Ⅱ.

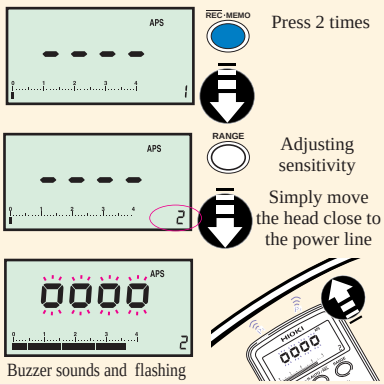
CAT Ⅱ: Primary electrical circuits in equipment connected to a wall outlet via a power cord.

CAT Ⅲ: Circuits between primary and distribution panels and outlets in equipment that reads electricity from the direct distribution panel via electrical reads (fixed equipment).



3256 Only　Voltage Detect

Check for live lines safely and easily

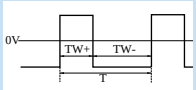


In the AC V range, the 3256 can be used to check whether power lines are live. When the sensitivity level is set to 4 and the test head is placed near a live power line, the built-in buzzer sounds and a display indicator lights.

Sensitivity threshold: 100 V AC or higher

3257 Only　Duty

Analyze pulse control signals



The ratio between pulse width (TW+ or TW-) and pulse recursion cycle (T) is displayed as a percentage.

Display range: 5 to 95%
Accuracy:
10 Hz to 1 kHz;
±1.0% rdg.±15 dgt.
1 kHz to 10 kHz;
±1.0% rdg.±50 dgt.

Accuracy rating pertains to a square wave of 5Vp-p.

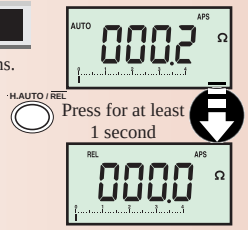
Practical functions

I want to see fluctuations with respect to the current value...
I want to zero adjust the resistance range...

Relative function

This setting can be used with the V, A and Ω functions.

Any value can be set as the reference value and values can be displayed relative to the reference value.

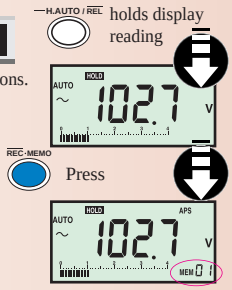


I want to keep track of values measured...

Memory function (REC.MEMO)

This setting can be used with the V, A, Ω and Hz functions.
Up to 20 data points can be held using this function.

Up to 20 display values obtained with Hold or Automatic Hold can be stored sequentially. Several types of data can be held at once.



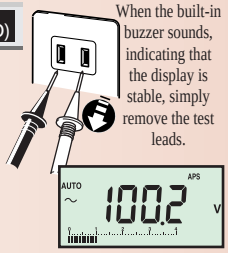
I can't see the reading because it is too dark...
I can't check the reading right now...

Automatic Hold function (H.AUTO)

This setting can be used with the V, A and Ω functions.

This function is useful when the device being tested needs to be monitored constantly.

This function can be set to hold the display when the switch is pressed.

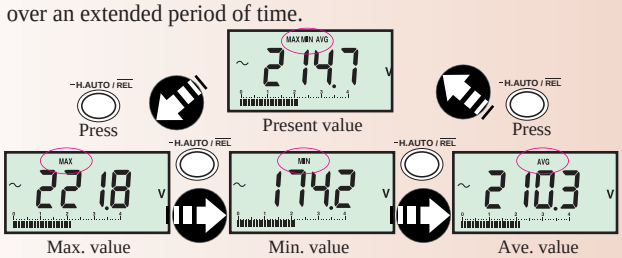


I want to read the max/min/average values...

Recording function

This setting can be used with the V, A and Ω functions.

The display can be switched between the present measurement value and the maximum, minimum, or average values measured since the start of recording. This is useful when observing changes over an extended period of time.



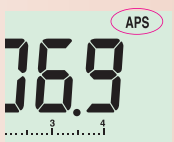
Care must be taken with regard to battery life

I cannot use the unit because the batteries are dead...

Automatic power saver function

Because the LCD goes out when the unit is idle for 10 minutes, unnecessary power consumption is easily avoided. This function can also be disabled.

This function is automatically disabled when recording.



Actual-size

3256 and 3257 common measurement items

1000 Vrms max. Voltage	10 Arms max. Current	42 MΩ max. Resistance
Continuity	Diode	500 kHz max. Frequency

■ 3256 & 3257 common specifications

	Range	Accuracy DC	Accuracy AC	Notes		Overload protection
AC / DC voltage V	420.0 mV	± 0.5%rdg. ± 2dgt.	± 1.5%rdg. ± 3dgt. 50Hz to 100Hz	Input impedance	Greater than 100MΩ	DC 1000 V 1000 Vrms(sin) or 10^7 V Hz 1 minute
	4.200 V		± 1.2%rdg. ± 3dgt. 50Hz to 500Hz		Appox. 11 MΩ	
	42.00 V				Appox. 10 MΩ	
	420.0 V					
	1000 V		± 1.2%rdg. ± 6dgt. 50Hz to 500Hz			
AC / DC current A	42.00 µA	± 1.5%rdg. ± 4dgt.	± 2.5%rdg. ± 5dgt. 50Hz to 500Hz	Input impedance	Appox. 10 kΩ	3256 40µA to 420mA range: 0.5A/700V fuse 10A range: 10A/600V fuse 3257 40µA to 420mA range: 0.44A/1000V fuse 10A range: 11A/1000V fuse
	420.0 µA				Appox. 100 Ω	
	4200 µA				Appox. 1 Ω	
	42.00 mA					
	420.0 mA				Appox. 0.01Ω	
	10.00 A					
Resistance Ω	420.0 Ω	± 0.7%rdg. ± 4dgt.		Open-circuit terminal voltage	3.4 Vmax.	DC 1000 V 1000 Vrms(sin) or 10^7 V Hz 1 minute
	4.200 kΩ	± 0.7%rdg. ± 2dgt.			Appox. 0.7 V	
	42.00 kΩ				Appox. 0.5 V	
	420.0 kΩ					
	4.200 MΩ	± 1.5%rdg. ± 2dgt.				
	42.00 MΩ	± 2.5%rdg. ± 2dgt.				
Continuity	420.0 Ω	± 0.7%rdg. ± 4dgt. A built-in buzzer sounds when the resistance value is less than 50Ω ±30 Ω		Open-circuit terminal voltage 3.4 Vmax.		
Diode	2.00 V	± 5.0%rdg. ± 2dgt.		Open terminal voltage/current 3.4 Vmax.	Appox. 500 µA	
Frequency Hz	0.50Hz to 199.99Hz	± 0.02%rdg. ± 2dgt.		ATT. range 4.2/ 42/ 420/ 1000 V		
	200.0Hz to 500.0kHz	± 0.02%rdg. ± 1dgt.				

AC measurement Accuracy: In the 3256, ±2 dgt. is added for inputs less than 10% of the full scale
Accuracy is not rated for inputs less than 1.0 mV in the 420 mV range.
For the 3257, the accuracy rating is for inputs greater than 10% of full scale.
Measurement times in the 10 A range: continuous up to 7 A, maximum 1 minute for 7 A to 10 A.

● Display: data display; 4200 max. (19999 for frequency range), 42-dot bar graph ● Sampling rate: 2.5 samples/sec (for other measurements than in Hz), 5 samples/sec (5 Hz or more), approx. 25 samples/sec (bar graph) ● Range selection: automatic and manual ● Ambient temperature / humidity: 0 to 50˚C (32˚F to 122˚F) 80% rh (no condensation) ● Storage temperature/ humidity range: -20 to 60˚C (-4˚F to 140˚F) 70% rh (no condensation) ● Power source: R03 manganese battery×2 or LR03 alkaline battery ×2 ● Continuous operation: In DC voltage approx. 100 hours (with manganese batteries), approx. 200 hours or more (with alkaline batteries) ● Dimensions and Mass: Approx. 76 W ×167 H × 33 D mm, approx. 260g (Approx 3.0˝ W × 6.6˝ H ×1.3˝ D, 9.2 oz.) (including batteries)

With Holster

3256-51 (MEAN value type)

3257-51 (True RMS type)

(Includes 9170 TEST LEADS and holster)

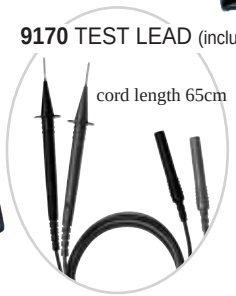
With Semi-hard Carrying Case

3256-50 (MEAN value type)

3257-50 (True RMS type)

(Includes 9170 TEST LEADS and 9378 CARRYING CASE)

9170 TEST LEAD (included)



cord length 65cm

Special option for the 3256-51 and 3257-51

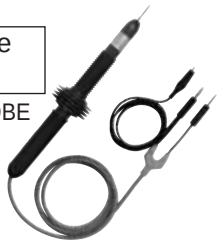
3853 CARRYING CASE

(soft type)

Common options for the 3256-51 and 3257-51

9014 HIGH VOLTAGE PROBE

(No CE marking)



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