

NEW

HIOKI

1998

3257 DIGITAL HiTESTER

Field measuring instruments



 **True RMS**
measurement

 **Outstanding**
safety
features

CE marking
600 V Bussmann fuse
Foolproof shutter mechanism



Compact digital multimeter supports distorted waveform

Shutter mechanism prevents incorrect test lead connection



Voltage ranges

Only V and COM terminals open

Single operation



Simple operation with rotary switch



10A range

Only A and COM terminals open

Foolproof!

* The above photograph shows a special model with a transparent cover.

More functions!

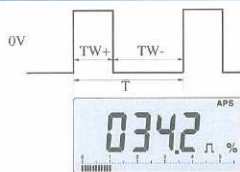
A basic tool for measurement and analysis



with carrying case

Duty factor measurement

The duty factor indicates the pulse width of a signal (either positive TW+ or negative TW-) as a proportion of the cycle time of the signal, and is normally expressed as a percentage. It can be used for diagnosing control signals.



Indication of positive duty factor

3257 Specification (accuracy at 23°C ± 5°C, 80% RH or less)

Function	Range	Accuracy	Notes
DC voltage	560.0mV	±0.35%rdg.±4dgt.	Input impedance: Approx.11MΩ Measurement frequency: Approx.11MΩ
	5.600 V	±0.35%rdg.±2dgt.	
	56.00 V	±0.6 % rdg.±2dgt.	
	560.0 V	±0.6 % rdg.±2dgt.	
	1000 V	±1.0 % rdg.±2dgt.	
AC voltage	560.0mV	±2.0%rdg.±8dgt.	Input impedance: Approx.11MΩ Measurement frequency: 50 to 2kHz
	5.600 V	±1.5%rdg.±4dgt.	
	56.00 V	±1.5%rdg.±4dgt.	
	560.0 V	±1.5%rdg.±4dgt.	
	750 V	±1.5%rdg.±4dgt.	
Resistance	560.0 Ω	±1.0%rdg.±6dgt.	Open-circuit terminal voltage: Approx.0.3V
	5.600kΩ	±0.5%rdg.±4dgt.	
	56.00kΩ	±0.5%rdg.±4dgt.	
	560.0kΩ	±0.5%rdg.±4dgt.	
	5.600MΩ	±1.0%rdg.±4dgt.	
Continuity check	560.0 Ω	±1.5%rdg.±6dgt.	Open-circuit terminal voltage: Approx.1.23V Threshold level: 100Ω ±80Ω
	Diode test	2.000 V	±5.0%rdg.±2dgt. Test method: 300 μA constant current
DC current	56.00 μA	±1.5%rdg.±4dgt.	Internal resistance: Approx.10.5kΩ max. Approx.110Ω max.
	560.0 μA	±1.5%rdg.±4dgt.	
	5600 μA	±1.5%rdg.±4dgt.	
	56.00 mA	±1.5%rdg.±4dgt.	
	560.0 mA	±1.5%rdg.±4dgt.	
AC current	*10.00 A	±1.5%rdg.±4dgt.	Input impedance: Approx.10.5kΩ max. Measurement frequency: 50 to 2kHz
	56.00 μA	±2.5%rdg.±4dgt.	
	560.0 μA	±2.5%rdg.±4dgt.	
	5600 μA	±2.5%rdg.±4dgt.	
	56.00 mA	±2.5%rdg.±4dgt.	

* Measurement times in the 10 A range are: continuous up to 7 A, maximum 1 minute for 7 A to 10 A.

The accuracy figures for AC ranges are determined with at least 10% of full scale deflection.

3257 DIGITAL HITESTER

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Relative function

The relative function allows a reference value to be set, and then displays the deviation from this reference value. This is convenient for checking on fluctuations from standard values.



Function	Range	Accuracy	Notes
frequency	149.99 Hz	±0.02%rdg.±1dgt.	Measurement frequency: 4.000Hz to 400.0kHz
	1499.9 Hz	±0.02%rdg.±1dgt.	
	14.999kHz	±0.02%rdg.±1dgt.	
	149.99kHz	±0.02%rdg.±1dgt.	
	400.0 kHz	±0.02%rdg.±1dgt.	
Duty	100.0 %	±1.0 % rdg.±15dgt. ±1.0 % rdg.±50dgt.	Measurement frequency: 10Hz to 1kHz " " 1kHz to 10kHz
	The accuracy figures are determined with the square wave (5 V p-p) from 10% to 90% of duty factor. From inputs below 5% or over 95%, "----" indication appears.		

● Measurement method: double integration ● AC measurement: true rms value measurement ● Crest factor: 3.0 max. (in 560 mV, 560 μA, 56 mA ranges: 1.7 max.) ● Ancillary functions: auto ranging, range control function, hold auto function, relative display function, auto power save function, overvoltage warning function, battery life warning function ● Display: numeric display - four digits (max. 5610, for Hz only, 14999); bar graph display - scale indications, 56-dot bar graph ● Sampling rate: 2.5 times/sec (other than frequency), 2 times/sec (frequency), 20 times/sec (bar graph) ● Overload protection (for 1 minute): DCV/ACV/Hz/duty factor - 1000 V DC / 750 V AC rms (sine wave) or 10⁷ VHz; ohms/conductance/diode - 600 V DC/AC rms (sine wave); DCA/ACA - 56 μA to 560 mA ranges 1 A/600 V fuse, 10 A range 10 A/600 V fuse ● Applicable standards: safety - EN61010-1; EMC - EN55011/EN50082-1 ● Power source: R03 manganese battery × 2 ● Continuous operating time: approx. 500 hours (for DCV) ● Dimensions and mass: Approx. 76 W × 167 H × 33 D mm, 300 g ● Accessories: 9170 TEST LEAD, 9378 CARRYING CASE



In some cases, power lines may carry voltage spikes of several times the normal supply voltage. For reasons of safety, ordinary testers should not be used to measure power lines carrying more than 250V. When measuring such power lines, always use a tester with built-in overcurrent protection to guard against short circuits, such as models 3008 and 3255. When measuring currents on power lines, use a clamp-on tester that is designed for measuring live lines.

Note: The term "power lines" refers to the high-capacity lines supplying power to factories or offices. Generally "high-capacity" here refers to currents of about 20 amperes or more. It thus does not include circuits protected by overload or wiring protection devices (fuses or circuit breakers) with a rating below this value.

Option

*9014 HIGH VOLTAGE PROBE (up to 30kVDC)

*No CE marking

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