

# HIOKI

Field measuring instruments 1994

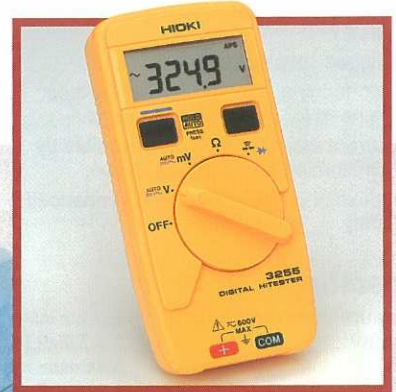
**NEW**

IEC 348 and IEC 1010 conformance; internal fuse to 600 V

***Safe for use with industrial power lines***

# 3255

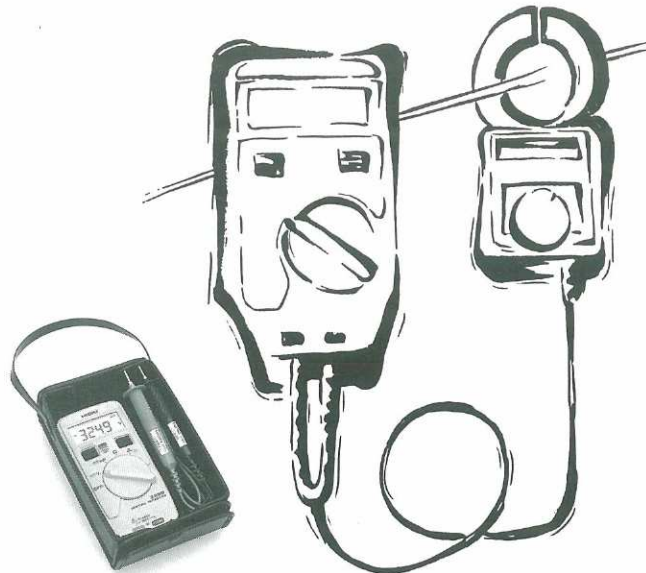
DIGITAL HiTESTER



# Combination with clamp on probe allows current measurement

## Tough electrical engineering tester, with rugged body, and dustproof and waterproof construction

- Built-in current limiter and fuse capable of withstanding 600 V to prevent short-circuit accidents.
- Improved safety standards: conformance to IEC 348 and IEC 1010.
- Automatic AC/DC discrimination function (V. Auto), plus fixed functions.
- Wide range: maximum reading 3249.
- Auto power saving function powers off after 30 minutes with no operation, to prolong battery life. (Function can be disabled.)
- Rugged construction.
- Two-terminal configuration eliminates the need for probe reconstructions.
- Current measurement also possible by combination with clamp on probe.
- Industrial grade test leads for enhanced safety.



\* IEC 348: International safety standard relating to electrical measurement equipment. The unit is designed to meet this standard in every detail, down to the voltage withstand test to which individual 3255 units are subjected.

\* IEC 1010: International safety standard relating to electrical measurement, control and laboratory equipment. The unit is designed to comply with this standard in every detail.

### Specification

#### Measurement method: Display:

Double integration  
3 1/2 digit LCD;  
maximum reading 3249  
polarity display (- only)  
Overflow indication "OF"  
or "-OF".

#### Range switching:

Automatic or manual

#### Sampling rate:

2.5 times/s

#### Withstand voltage:

5.55 kV rms AC sine wave  
(50/60 Hz for 1 minute)  
input between terminals  
and body


#### Maximum load voltage:

600 V rms

#### Operating environment:

0 to 40 °C, 80% R.H.  
maximum (no  
condensation)

#### Battery low indication:

"" indication appears at  
1.2 V  $\pm$  0.1 V or below.

#### Power supply:

AAA (R03, 2) (continuous  
use approx. 400h on DC V  
range)

#### Power consumption:

5.0 mW typical (DC V  
range when battery voltage  
is 1.5 V)

#### Dimensions and weight:

145H  $\times$  70W  $\times$  31Dmm;  
approx. 200 g

#### Accessories:

9185 test leads (1), 9371  
carrying case (1)

#### Safety standards:

IEC 348 safety class II  
IEC 1010-1 over voltage  
category III

#### Dustproof and waterproof construction:

IP54 (IEC529) equivalent  
(Unit should not be  
operated when wet.)

### Optional Accessories

9008 clamp on probe (max. 500A AC)

9132 clamp on probe (max. 1000A AC)

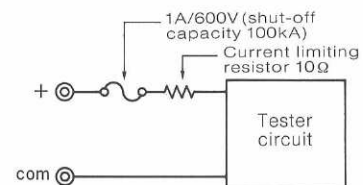
(23°C  $\pm$  5°C, 80% R.H. max., no condensation)

	Range	Accuracy	Notes	
DC voltage	3.2 V	$\pm$ 0.5% rdg. $\pm$ 4dgt.	Input impedance 11 M $\Omega$ approx.	
	32 V	$\pm$ 1.3% rdg. $\pm$ 4dgt.	10 M $\Omega$ approx.	
	320 V	$\pm$ 1.3% rdg. $\pm$ 4dgt.	10 M $\Omega$ approx.	
	600 V	$\pm$ 1.3% rdg. $\pm$ 4dgt.	10 M $\Omega$ approx.	
AC voltage	3.2 V	$\pm$ 2.0% rdg. $\pm$ 8dgt.	Input impedance 11 M $\Omega$ approx. 10 M $\Omega$ approx. 10 M $\Omega$ approx. 10 M $\Omega$ approx.	Measurement frequency range 50 Hz to 500 Hz
	32 V	$\pm$ 2.0% rdg. $\pm$ 8dgt.		
	320 V	$\pm$ 2.0% rdg. $\pm$ 8dgt.		
	600 V	$\pm$ 2.0% rdg. $\pm$ 8dgt.		
DC mV	320 mV	$\pm$ 0.5% rdg. $\pm$ 4dgt.	Input impedance 10 M $\Omega$ approx.	
AC mV	320mV	$\pm$ 2.0% rdg. $\pm$ 8dgt.	Input impedance 10 M $\Omega$ approx.	Measurement frequency range 50 Hz to 500 Hz
Resistance	320 $\Omega$	$\pm$ 1.5% rdg. $\pm$ 6dgt.	Open circuit terminal voltage 1.7 V max. 0.45 V max. 0.45 V max. 0.45 V max. 0.45 V max. 0.45 V max.	Maximum display value 3149 3239 3249 3249 3249 3249
	3.2 k $\Omega$	$\pm$ 1.5% rdg. $\pm$ 4dgt.		
	32 k $\Omega$	$\pm$ 1.5% rdg. $\pm$ 4dgt.		
	320 k $\Omega$	$\pm$ 1.5% rdg. $\pm$ 4dgt.		
	3.2 M $\Omega$	$\pm$ 1.5% rdg. $\pm$ 4dgt.		
	32 M $\Omega$	$\pm$ 10.0% rdg. $\pm$ 4dgt.		
Continuity		$\pm$ 2.5% rdg. $\pm$ 6dgt.	Beeper sounds if below 250 $\Omega$ threshold value Open circuit terminal voltage 1.7 V max.	
Diode test		$\pm$ 5.0% rdg. $\pm$ 4dgt.	Test current 1.0 mA max. Open circuit terminal voltage 1.7 V max.	

### Fuse protection

As shown in the figure on the right, the 3255 includes a protective resistor (current limiting resistor) and 1 A fuse (600 V AC shut-off capacity 100 kA), so that even if a short occurs in the circuit, the shorting current is limited by the resistor, and the fuse breaks the circuit safely.

Fitting this protection resistor prevents very large short-circuit currents from flowing, and ensures safety by keeping arcing at the probe tips to a minimum.



# HIOKI E.E. CORPORATION

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