ΗΙΟΚΙ

INSULATION TESTER IR4056-20, IR4057-20

Field Measuring Instruments 1





LINE

500V/1000V RELEASE



HIOKI

0Ω ADJ

EARTH







Comparator Function Improves Work Efficiency

COMP

- Identify the Insulation and Low Resistance Conditions with the PASS/FAIL Icon
- FAIL Alert with Red LCD and Audio Buzzer

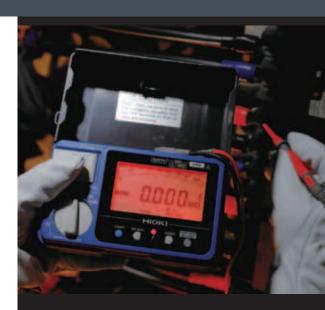
Stable Digital Readings are Easy to Read



LIGHT



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Comparator function provides PASS/FAIL decisions at a glance

- The comparator function compares measured values to pre-set reference values to generate a pass or fail judgment. (Can be used with insulation resistance measurement and low-resistance measurement.)
- The stable display is easy to read, increasing work efficiency.

Instant judgment

Since the IR4056-20 and IR4057-20 generate judgments as soon as the test lead makes contact, it is possible to make a rapid series of measurements in the manner of a continuity check.



*In some cases, the capacitance component may prevent a judgment from being made until charging completes.

Identify PASS/FAIL using light and sound

The IR4056-20 and IR4057-20 notify the operator of pass and fail judgments using a beeping sound, LCD light, and comparator indicator on the test lead with remote control switch (optional accessory), allowing determinations of compliance to be made without looking at the instrument.

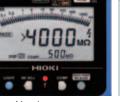
PASS When the measured value is greater than or equal to the reference value* Short beep

When the measured

value is less than the

*Insulation resistance measurement

reference value* Continuous tone





No change





Red

Red

Designed for safety and peace of mind Featuring improved convenience and ease of use

..... Integrated hard case **DROP PROOF** with sliding cover Testers are built tough to withstand a 1-meter drop onto a concrete floor With cover closed AC/DC voltage **TEST LEAD L9787** measurement (With AC/DC automatic detection function) Use as a tester replacement thanks to DC voltage measurement functionality, which is useful in applications involving solar power EARTH ACOV LINE and electric vehicles (EVs). Easy-to-see LCD display is easy to read from any angle. R 4056 HIOKI function in use. IR4056-20 A backlight makes it possible to Safety-oriented double-action 200 mA grounding line 500 V/1000 V range only continuity check function

The IR4056-20 and IR4057-20 can perform EV and HEV continuity checks as well as resistance measurement of safety conductors in building electrical equipment as defined by IEC 60364.





Press the flashing "RELEASE" key.



Connect either the test probe or alligator clip for the earth side

An FSTN LCD ensures the instrument's

Effective maximum display value

A ">" mark is displayed when the measured value is greater than the effective maximum display value for the

Backlight (White LED)

work in dark or poorly lit locations.



IR4056-20 Economic model

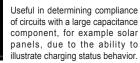


5 ranges 50/125/250/500/ 1000 V	Rated output voltage (DC)	5 ranges 50/125/250/500/ 1000 V	
1	Voltage measurement	<i>✓</i>	
1	Resistance measurement	✓	
Approx. 0.8 s	Comparator judgment result response time	Approx. 0.3 s	
✓	200 mA continuity	✓	
-	Bar graph	✓	
159W×177H×53D	Dimensions(mm)	159W×177H×53I	
600	Mass(g)	640	





Bar graph



Specifications Guaranteed accuracy period: 1 year, Accuracy guarantee for temperature and humidity: 23°C±5°C (73°F ±9°F) and 90% rh

Insulation re	sistance	measur	ement
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Rated output voltage (DC)	50V	125V	250V	500V	1000V
Effective maximum indicated value	100 MΩ	250 MΩ	500 MΩ	2000 MΩ	4000 MΩ
Effective medium value	2 MΩ	5 MΩ	10 MΩ	50 MΩ	100 MΩ
1st effective measuring range $[M\Omega]$	0.200 to 10.00	0.200 to 25.0	0.200 to 50.0	0.200 to 500	0.200 to 1000
Accuracy	±2 % rdg. ±2 dgt.				
2st effective measuring range $[M\Omega]$	10.1 to 100.0	25.1 to 250	50.1 to 500	501 to 2000	1010 to 4000
Accuracy	±5 % rdg.				
Other measuring range $[M\Omega]$	0 to 0.199				
Accuracy	±2 % rdg. ±6 dgt.				
Lower limit resistance value to maintain nominal output voltage	0.05 MΩ	0.125 MΩ	0.25 MΩ	0.5 MΩ	1 MΩ
Overload protection	600 VAC (10 s)			-	660 VAC (10 s)

Test leads with sleeves

When measuring in a CAT IV or CAT III environment, be sure to attach the sleeve to the test lead When the CAT (measurement category) rating of the main unit is lower than that of test leads, the CAT of the main unit takes precedence.



Basic specifications

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Indicator	Indicator: Semi-transmissive FSTN LCD, Positive backlight		
Functions	Live circuit indicator, Automatic electric discharge, Automatic DC/AC detection, Comparator, Built-in battery power indicator etc.		
IR4057-20 functions	Bar graph, Displaying 1-min. values		
Power supply	LR6 alkaline battery × 4		
Continuous operating time	Approx. 20 hours (Comparator off, backlight off, 500 V range, no load)		
Auto power save	The power will go off automatically 10 minutes after the last operation		
Operating temperature and humidity	0 to 40°C (32 to 104°F) 90% rh or lower (non-condensating) 40 to 50°C (104 to 122°F), at 50°C and below relative with linear decrease up to 50% rh		
Storage temperature and humidity	-10 to 50°C (14 to 122°F) 90% rh or lower (non-condensating)		
Maximum rated voltage to earth	600 V AC/DC, Measurement category III, Anticipated transient overvoltage: 6000 V		
Dielectric strength	7060 V AC, 50/60 Hz, Measurement terminals - electrical enclosure, 1 min, current sensitivity 1 mA		
Degree of protection	IP40		
Standards	EN61326 (EMC), EN61557-1/-2/-4*/-10		
Drop proof	On concrete: 1 m		
Dimensions	Approx. 159W × 177H × 53D mm (6.26"W × 6.97"H × 2.09"D) (excluding protrusions)		
Mass	IR4056-20: Approx. 600 g (21.2 oz) IR4057-20: Approx. 640 g (22.6 oz) (including battery, excluding test lead)		
Accessories	Test lead L9787 × 1, Neck strap × 1, Instruction manual × 1, LR6 alkaline battery × 4		

* Subclause 4.3 of Part 4 (interchanging of test leads) is not applicable when L9788-10 is used.

Voltage measurement

	-				
DC V	Display range (Auto range)	4.2 V	42 V	420 V	600 V
	Maximum indicated value	4.200 V	42.00 V	420.0 V	750 V
	Resolution	0.001 V	0.01 V	0.1 V	1 V
	Accuracy	±1.3 % rdg. ±4 dgt. *			
AC	Display range (Auto range)	420 V (Minimum indicated value: 30.0 V)		600 V	
	Maximum indicated value	420.0 V		750 V	
V	Resolution	0.1 V		1 V	
	Accuracy	±2.3 % rdg. ±8 dgt. *			
	Measurement principles	Average responding type			
	Frequency range	50/60 Hz			
AC/DC automatic detection range AC detected at 30 V or greater (50/60 Hz) (Pulsating currents with an overlapping AC cor of 30 V or greater are detected as AC)					
Effect of Measurement accuracy per 1°C × 0.1 (Applicable to the operating temperature range other than 18 to 2			than 18 to 28°C)		

* Ranges in excess of 600 V are outside the accuracy guarantee.

Resistance measurement

Display range (Auto range)	10 Ω	100 Ω	1000 Ω	
Maximum indicated value	10.00 Ω	100.0 Ω	1000 Ω	
Resolution	0.01 Ω	0.1 Ω	1Ω	
Accuracy (after zero adjustment)	0 to 0.19 Ω: ±3dgt. 0.20 to 10.00 Ω: ±3%rdg. ±2dgt. ±3%rdg. ±2dgt			
Measuring current	200 mA or more (at 6 Ω or less) (Display value before zero adjustment)			
Overload protection	600 VAC (10s, using fuse)			

Options L9787 options 8.0mm/ф4.0mm 22mm/q3.7mm TEST LEAD SET 48mm/ф2.6mm 65mm/d2.6mm WITH REMOTE BREAKER PIN BREAKER PIN SWITCH L9788-11 L9787-91 L9788-92 Shared options Sleeve TEST LEAD WITH REMOTE SWITCH TIP PIN MAGNETIC ADAPTER LR6 alkaline battery × 4 (RED) L9788-90 9804-02 L9788-10 Attaches to tip of the ground lead; 11 mm diameter. 35mm φ3.2mm

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TEST LEAD L9787

Neck strap

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All information correct as of Aug. 26, 2014. All specifications are subject to change without notice.