

New Look for KYORITSU Professional Safety Tester 2001 INSULATION/CONTINUITY



World Class Test and Measuring Instruments for a Global Marketplace

KYORITSU ELECTRICAL INSTRUMENTS WORKS, LTD.

DIGITAL 3005A,3007A

KEW DIGITAL INSULATION/CONTINUITY TESTER

Model 3005A and 3007A are microprocessor controlled digital insulation/continuity testers. They not only permit insulation resistance measurement on three rated test voltages (250V, 500V and 1000V) and continuity testing, but also offer a number of advanced features such as a bargraph reading of insulation resistance, auto null function for continuity testing, Trac-Lok function to save battery power (Model 3007A only), etc.

Selection Guide

MODEL	3005A	3007A
250V test voltage		۲
500V test voltage		۲
1000V test voltage		•
200mA continuity range		۲
Live circuit warning		۲
Illuminated scale		۲
Automatic discharge		٠
Trac-lok for extended battery life		•





Layout Diagram



①LCD DISPLAY
②TRAC-LOK SWITCH (Model 3007Aonly)
③RANGE SELECTOR SWITCH
④TEST BUTTON
⑤CONNECTOR
⑥BACK LIGHT SWITCH (Model 3007A only)
⑦FUNCTION SWITCH

①INSULATION RESISTANCE SCALE
②BAR GRAPH
③CONTINUITY SCALE
④LIVE CIRCUIT WARNING
⑤TRAC-LOK MODE
⑥AUTONULL OPERATION
⑦BATTERY VOLTAGE WARNING
⑧CONTINUITY/INSULATION RESISTANCE RANGE SETTING
⑨UNIT
⑩OUTPUT VOLTAGE GRAPH (INSULATION RESISTANCE)
⑪OUTPUT VOLTAGE RANGE
⑫MEASUREMENT VALUES



Features (3005A/3007A)

Bargraph to display insulation resistance.

- Displays the value of external AC voltage along with flashing symbol.
- Auto null function to automatically subtract the test lead resistance before displaying the real continuity resistance value.
- Trac-Lok mode to conserve battery life on insulation and continuity tests (Model 3007A only).
- Live circuit warning beeper.
- Releasing the test button automatically discharges the charges stored in the circuit under test.
- Backlight function to view the test results in dimly lit areas (Model 3007A only).
- 200mA continuity measuring current to IEC 61557.
- Minimum 1mA current on insulation tests to IEC 61557.

Accessory Test Leads MODEL 7122



LCD DISPLAY



ANALOGUE **KEW INSULATION/CONTINUITY TESTER**

The Model 3131A offers unmatched performance, and feature including test lead resistance zero adjustment for time-saving continuous operation, a clear ease to read illuminated scale, and a live circuit warning.



®RANCE SELECTOR SWITCH

Specification

Insulation	3005A/3007A	3131A	3132A	
Test Voltage	250V/500V/1000V	250V/500V/1000V	250V/500V/1000V	
Measuring Ranges (Mid-scale Value)	20MΩ/200MΩ/2000MΩ Rated test voltage+20%, -0%	100MΩ/200MΩ/400MΩ (1MΩ) (2MΩ) (4MΩ)	100MΩ/200MΩ/400MΩ (1MΩ) (2MΩ) (4MΩ) Rated test voltage+20%, -0%	
Output Voltage on open circuit		Rated test voltage+20%, -0%		
Nominal Current	1mA DC min.	1mA DC min.	1mA DC min.	
Output Short Circuit Current	1.5 mA DC approx.	1.3 mA DC approx.	1.3 mA DC approx.	
Accuracy	±1.5%rdg±5dgt(20MΩ/200MΩ) ±10%rdg±3dgt(2000MΩ)	$0.05-10M\Omega/0.1-20M\Omega/0.2-40M\Omega$ (Accuracy Guaranteed Ranges) $\pm 5\%$ of indicated value	$0.1-10M\Omega/0.2-20M\Omega/0.4-40M\Omega$ (Accuracy Guaranteed Ranges) $\pm 5\%$ of indicated value	

Continuity

Measuring Ranges (Mid-scale Value)	20 Ω/200 Ω/2000 Ω	2Ω/20Ω(1Ω)(10Ω)	3Ω/500Ω(1.5Ω)(20Ω)
Output Voltage on open circuit	7~12V DC	4~9V DC	4.1V DC approx.
Measuring Current	200mA DC min.	200mA DC min.	210mA DC min.
Accuracy	$ \begin{array}{c} \pm 1.5\% \text{rdg} \pm 5 \text{dgt}(20\Omega) \\ \pm 1.5\% \text{rdg} \pm 3 \text{dgt}(200\Omega/2000\Omega) \end{array} $	$\pm 3\%$ of scale length	$\pm 3\%$ of scale length

AC Voltage

AC Voltage range	0-600V AC	 0-600V AC	
Accuracy	±5%rdg±3dgt	 \pm 5% of scale length	

General

General			
Safety Standard	IEC61010-1 CAT. II 300V Pollution Degree 2 IEC61010-2-031 IEC61557-1/2/4	IEC61010-1 CAT. III 300V Pollution Degree 2 IEC61010-2-031 IEC61557-1/2/4	IEC61010-1 CAT. III 300V Pollution Degree 2 IEC61010-2-031 IEC61557-1/2/4
IP Rating	IEC60529-IP54	IEC60529-IP54	IEC60529-IP54
EMC Standard	IEC61326-1	IEC61326-1	IEC61326-1
Withstand Voltage	3700V AC for 1 minute	3700V AC for 1 minute	3700V AC for 1 minute
Power Source	R6P(AA)(1.5V)×8	R6P(AA)(1.5V)×6	R6P(AA)(1.5V)×6
Dimensions	185(L)×167(W)×89(D)mm	185(L)×167(W)×89(D)mm	106(L)×160(W)×72(D)mm
Weight	900g approx.	860g approx.	560g approx.
Accessories	7122(Test leads) Pouch for test leads 8923(F500mA/600V fuse) × 2 R6P(AA) × 8, Shoulder Strap Instruction Manual	7122(Test leads) Pouch for test leads 8923(F500mA/600V fuse) ×2 R6P(AA) ×6, Shoulder Strap Instruction Manual	7122(Test leads) Pouch for test leads 8923(F500mA/600V fuse) ×2 R6P(AA) ×6, Shoulder Strap Instruction Manual



3131A

⑤POWER-ON INDICATION LED ©CONTINUITY ZERO ADJUST ⑦LIGHT SWITCH

ANALOGUE **KEW INSULATION/CONTINUITY TESTER**

The Model 3132A is a highly compact and easy to use insulation and continuity tester. Designed to strict IEC61010-1 safety standards, it has an IP protection rating of IP54 and is ideally suited to more arduous environments. The instrument offers 3 insulation test ranges, a 3 Ω continuity range and a 500 Ω resistance range.



Why insulation test is necessary?

All live conductors of electrical appliances and installations must be insulated to prevent electric shock hazards from inadvertent contact, fire hazards from short circuit and equipment damage. In addition, a low insulation resistance in installation will result in a leakage current, and hence causes a waste of energy which would increase the running costs of the installation.

Insulation resistance must be check by applying appliances or installation a higher voltage than its normal working voltage, because an insulation resistance is lower at higher voltage than at lower voltage. KYORITSU's insulation resistance testers provide measurement at high levels of test voltages.

Periodical test is also important to ensure that insulation of installations or appliances is not deteriorating. Foreign matter and mechanical factors like wear or breakage may reduce insulation resistance. Regular tests and data logs can detect possible fault in insulation.

Minimum value of insulation resistance by IEC60364-6-61 TABLE 61A

Nominal circuit voltage (V)	Test voltage V DC	Insulation resistance (Mohms)
SELV and functional extra-low voltage, when the circuit is supplied from a safety isolating transformer (SELV: Safety Extra-Low Voltage)	250	≧0.25
Up to and including 500V with the exception of the above cases	500	≧0.5
Above 500V	1000	≧1.0



Please read the "Safety Warnings" in the instruction manual supplied with the instrument thoroughly and completely for correct use. Failure to follow the safety rules can cause fire, trouble, electrical shock, etc. Therefore, make sure to operate the instrument on a correct power supply and voltage rating

marked on each instrument.

*The contents of this catalogue may be subject to change without notice.

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