

# DIGITAL 5kV HIGH VOLTAGE INSULATION TESTER



## **Data Communication Function**

- Data can be downloaded and saved to a PC.
- Data can also be transferred to a PC for real-time display.
- 200 measurement results can be saved in the memory and recalled on the display.



Test report Instruction manual CD





- 2 Lines × 16 Characters LCD
- Microprocessor-controlled
- Tests insulation resistance up to  $10\,\text{T}\Omega$
- 4 Insulation test voltages: 500V, 1000V, 2500V, 5000V
- AC / DC Voltmeter (30~600V)
- Short-circuit current up to 1.9mA
- PI (Polarization Index) indication
- DAR (Dielectric Absorption Ratio) indication
- Auto-ranging on all insulation ranges
- Optical USB to RS-232 data transmission
- Well isolated from contact
- Well protected from surges
- 2 built-in optical LEDs for data transfer
- Visual and audio warning of external voltage presence (≥30Vac or ≥30Vdc)
- Auto-hold function to freeze reading
- Overload protection
- Adjustable testing duration: 1~30 minutes
- Internal memory for data storage
- Displays testing duration for insulation measurement
- Auto-off function
- 200 measurement results can be saved in memory and recalled on display
- Power source: 1.5V "C" Alkaline battery × 8

STANDARD ELECTRIC WORKS CO., LTD. www.sew.com.tw 5F., NO.105, JHONGCHENG RD., TUCHENG DIST., NEW TAIPEI CITY 23674, TAIWAN (R.O.C.) TEL: 886-2-22681528 FAX: 886-2-22681529 e-mail: sales@sew.com.tw

Model 6304 IN

# **SPECIAL FUNCTIONS**

#### Voltmeter

Conventional insulation testers are highly susceptible to damage when testing insulation resistance while voltage is present on the measured object (whether ACV or DCV). To safely prevent damage, this new line of testers has the unique ability to sense voltage on a measured object. If any voltage is sensed, the tester will automatically switch to voltage detection mode and display the voltage finding on the LCD screen. This allows the user to prevent damage caused by attempting to measure insulation resistance while voltage is present.

## DAR = Dielectric Absorption Ratio

The Dielectric Absorption Ratio is the ratio of the insulation resistance measured at 1 minute divided by the insulation resistance measured at 30 seconds. Thirty seconds after starting a test, the tester will beep, indicating that the resistance value measured at 30 seconds has been saved. One minute after starting a test, the tester will beep again, indicating that the DAR result has been computed. The display format then changes to display the DAR result.

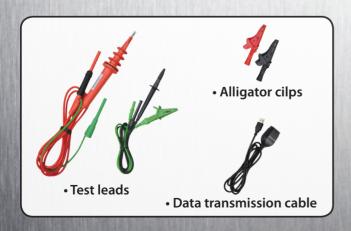
DAR : 1-min insulation resistance 30-sec insulation resistance

### PI = Polarization Index

The Polarization Index is the ratio of the insulation resistance measured at 10 minutes divided by the insulation resistance measured at 1 minute. One minute after starting a test, the resistance value is saved and the DAR is displayed. The test then continues, and after 10 minutes, the tester will beep again, indicating that the PI result has been computed. The display format changes to display the PI result.

> PI : 10-min insulation resistance 1-min insulation resistance

Tests on lower insulation resistance take longer, which tends to deteriorate the test specimen. Thus, higher DAR or PI readings (closer to 1) would indicate a better grade of insulation.





# **SPECIFICATIONS**

Test voltage	500V, 1000V, 2500V, 5000V	
Insulation resistance	1ΤΩ / 500V 2ΤΩ / 1000V 5ΤΩ / 2500V 10ΤΩ / 5000V	
Accuracy	0~100GΩ / 500V 0~200GΩ / 1000V 0~500GΩ / 2500V 0~1000GΩ / 5000V	±(5.0%rdg + 5dgt)
	100G~1TΩ / 500V 200G~2TΩ / 1000V 500G~5TΩ / 2500V 1000G~10ΤΩ / 5000V	±12%rdg
Resolution	1000ΜΩ: 1ΜΩ 10GΩ: 0.01GΩ 100GΩ: 0.1GΩ 1TΩ: 1GΩ 10TΩ: 10GΩ	
Short circuit current	up to 1.9mA	
PI (Polarization Index)	$\checkmark$	
DAR (Dielectric Absorption Ratio)	$\checkmark$	
Voltmeter	ACV: 30~600V (50/60Hz) DCV: 30~600V Accuracy: ±(2.0%rdg + 3dgt) Resolution: 1V	
Current measurement	0.5nA ~ 0.55mA (Depending on the insulation resistance)	
Power source	1.5V "C" × 8 Alkaline batteries	
Dimensions	330(L) × 260(W) × 160(D)mm	
Weight	Approx. 4268g (battery included)	
Safety standard	EN 61010-1 CAT IV 600V EN 61010-2-030 EN 61326-1	
Accessories	Instruction manual Test leads Data transmission cable CA-232 Compact disk (CD) for PC interface Alligator clips Batteries Test report	

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