

# DIGITAL INSULATION RESISTANCE TESTER

**sanwa**



**DG525**

## DG525 DG251

### Introduction

These instruments are compact, handy high-performance digital insulation tester with an additional AC voltage measuring function.

DG525 & DG251 are in compliance with JIS C1302 1994.

### Feature

- Each instrument is capable of switching the test voltages during insulation resistance measurement in the following 2 ranges.  
Model DG525 : 500V DC/250V DC  
Model DG251 : 250V DC/125V DC
- With both measuring functions, range can be shifted to the optimize range according to the measurement value.
- The auto power OFF turns the power off automatically in about 1 minute after power on even when the user forgets to switch the power off after measurement.
- Backlight is provided for easy readout, even in the dark.
- The data hold feature holds the measurement value.
- When the built-in batteries run out, the battery alarm display indicates battery replacement timing.

### Standard Accessories

- TL-M54 (Test Probe) Red test lead with amber plug (L/ ~ terminal) x 1  
Black test lead with black plug (E/ ~ terminal) x 1
- Instruction manual x 1
- Battery 1.5V AA x 6

## General Specification

A/D Converter:	Operating system: Double integration Sampling rate: Approx. 2.5samplings/sec.
Display:	LCD, max. 1999
Over-input indication:	Only the highest digit shows "1".
Measuring terminals:	MΩ: E, L ACV: ~, ~
Operating temperature/ humidity range:	0 ~ 40°C, <85% RH (with no condensation)
Accuracy guaranteed temperature/humidity range:	15 ~ 30°C, <85% RH (with no condensation)
Built-in batteries:	1.5V LR6/AA size alkaline batteries (x 6)
Battery life:	When power is switched between ON and OFF every minute in succession, Insulation resistance measurement: Approx. 60 hours AC voltage measurement: Approx. 250hours
Battery alarm:	LCD shows "B" marking when battery voltage drops below 7V.
Auto power OFF time:	Approx. 1 minute after power ON
Data hold:	Pressing HOLD switch holds measurement value. Data hold indicator: Yellow LED with 3mm dia.
Back-light lamp:	Pressing LIGHT switch lights up LCD backlight (green).
Dimensions & weight:	175 x 115 x 55mm. approx. 0.6kgs.

## Measurement range and Accuracy

### Insulation Resistance

Rated voltage	DG525	500V DC/250V DC
	DG251	250V DC/125V DC
Measuring voltage /current characteristics	When measuring terminals are open,	
	DG525	500V DC range --- 600V (+20%max) > 500V guaranteed at 500kΩ
		250V DC range --- 300V (+20%max) > 250V guaranteed at 250kΩ
	DG251	250V DC range --- 300V (+20%max) > 250V guaranteed at 250kΩ
		125V DC range --- 150V (+20%max) > 125V guaranteed at 125kΩ
When measuring terminals are shorted, Approx. 1.5mA max.		
Measuring ranges	0~2MΩ/1~20MΩ/10~200MΩ/100~2000MΩ, auto range	
Measuring accuracy	2MΩ/20MΩ/200MΩ ranges: Within±(2% of reading+2digits) 2000MΩ range: Within±(5% of reading+2digits)	
Applied voltage indication	Red LED with 5mm dia.	

### AC Voltage

Measuring ranges	0 ~ 600V max. 0 ~ 200V /10 ~ 600V, 2 auto range
Measuring accuracy	Within ±(1% of reading+0.5% of range + 1digit) Frequency: 50~400Hz
Input resistance	1MΩ