Fluke 1555/1550C Insulation Resistance Testers

FLUKE ®

Features



Features and benefits:

- Test voltages up to 10 kV provides solutions for all applications
- CAT III 1000 V, CAT IV 600 V safety rating
- Voltage breakdown detection alerts the user that voltage is present and gives the voltage reading up to 600 V ac or dc for increased user safety
- Selectable test voltages in 50 V steps from 250 to 1000 V, and 100 V steps above 1000 V
- Measurements can be stored in up to 99 memory locations, with each location assigned a unique, user defined, label for easy recall
- Long battery life gives the user over 750 tests between charges
- Automatic calculation of Dielectric Absorption (DAR) and Polarization Index (PI) with no additional setup
- Guard system eliminates the effect of surface leakage current on high-resistance measurements
- Large digital/analog LCD for easy viewing
- · Capacitance and leakage current measurement
- Ramp function for breakdown testing
- Resistance measurements up to 2TΩ











Specifications

Electrical specifications

The tester's accuracy is specified for one year after calibration at operating temperatures of 0 °C to 35 °C. For operating temperatures outside the range (-20 °C to 0 °C and 35 °C to 50 °C), add ± .25 % per °C, except on the 20 % bands add ± 1 % per °C.

Insulation resistance measurement			
Test voltage (dc)	Range (dc)	Accuracy (± reading)	
250 V	< 200 kΩ 200 kΩ to 5 GΩ 5 GΩ to 50 GΩ > 50 GΩ	unspecified 5 % 20 % unspecified	
500 V	200 kΩ 200 kΩ to 10 GΩ 10 GΩ to 100 GΩ > 100 GΩ	unspecified 5 % 20 % unspecified	
1000 V	< 200 kΩ 200 GΩ 20 GΩ to 200 GΩ $<$ 200 GΩ $<$ 200 GΩ	unspecified 5 % 20 % unspecified	
2500 V	< 200 kΩ 200 kΩ to 50 GΩ 50 GΩ to 500 GΩ > 500 GΩ	unspecified 5 % 20 % unspecified	
5000 V	< 200 kΩ 200 kΩ to 100 GΩ 100 GΩ to 1 TΩ > 1 TΩ	unspecified 5 % 20 % unspecified	
10000 V (1555 only)	< 200 k Ω 200 k Ω to 200 G Ω 10 G Ω to 2 T Ω > 2 T Ω	unspecified 5 % 20 % unspecified	
Bar graph range	0 to 1 TΩ	0 to 1 TΩ	
Insulation test voltage accuracy	-0 %, +10 % at 1 mA load current		
Induced ac mains current rejection	2 mA maximum		
Charging rate for capacitive load	5 seconds per μF		

Discharge rate for capacitive load	1.5 s/µF	
Leakage current measurement	Range: 1 nA to 2 mA	Accuracy: ± (5 % + 2 nA)
Capacitance measurement	Range: 0.01 uF to 15.00 μF	Accuracy: ± (15 % rdg + 0.03 μF)
Timer	Range: 0 to 99 minutes	Resolution Accuracy: Setting: 1 minute Indication: 1 second
Live circuit warning	Warning Range: 30 V to 660 V ac/dc, 50/60 Hz	Voltage Accuracy: ± (15 % + 2 V)

General specifications		
Display	75 mm x 105 mm	
Power	12 V lead-acid rechargeable battery, Yuasa NP2.8-12	
Charger Input (AC)	Charger Input (AC) 85 V to 250 V ac 50/60 HZ 20 VA	
	ent is supplied with a Class 1 (grounded) power cord. The protective ected internally. The extra pin is for added plug retention only.	
Dimensions	170 mm × 242 mm × 330 mm (6.7 in × 9.5 in × 13 in)	
Weight	3.6 kg (7.94 lb)	
Temperature (operating)	-20 °C to 50 °C (-4 °F to 122 °F)	
Temperature (storage)	-20 °C to 65 °C (-4 °F to 149 °F)	
Humidity	80 % to 31 °C decreasing linearly to 50 % at 50 °C	
Altitude	2000 m	
Enclosure sealing	IP40	
Input overload protection	1000 V ac	
Electromagnetic compatibility	EN 61326	
Certifications		
Safety compliance	CAT III 1000 V, CAT IV 600 V	
Pollution degree	2	