

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

FLUKE

Fluke 1555 10 kV Insulation Resistance Tester

Fluke 1555 Insulation Resistance Tester 10 kV The Fluke 1555 is a digital insulation resistance tester with selectable DC test voltages up to 10 kV and insulation measurement to 2 TΩ. It targets high-voltage equipment such as switchgear, motors, generators, and cables, with automatic DAR/PI calculation, guard terminal for surface leakage rejection, capacitance and leakage current measurement, and optional Fluke Connect remote operation and trending. The Fluke 1555 is a digital insulation resistance tester with selectable DC test voltages up to 10 kV and insulation measurement to 2 TΩ. It targets high-voltage equipment such as switchgear, motors, generators, and cables, with automatic DAR/PI calculation, guard terminal for surface leakage rejection, capacitance and leakage current measurement, and optional Fluke Connect remote operation and trending.



MODEL

Fluke 1555

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

1555

LISTING

<https://aumictechlabs.com/products/1555-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Fluke 1555 10 kV Insulation Resistance Tester is a high-voltage diagnostic instrument engineered to measure insulation integrity in switchgear, motors, generators, and cables. It delivers insulation resistance measurements up to 2 TΩ across selectable DC test voltages from 250 V to 10,000 V, supporting preventative and predictive maintenance workflows. The unit combines a large digital/analog LCD display with advanced analysis functions including automatic Dielectric Absorption Ratio (DAR) and Polarization Index (PI) calculations, guard system leakage

current elimination, and optional ramp function capability for breakdown testing. Technical Specifications Insulation Resistance & Voltage Test voltages (DC): 250 V to 1000 V in 50 V steps; above 1000 V in 100 V steps Maximum resistance measurement: 2 T Ω Safety rating: CAT III 1000 V, CAT IV 600 V Line voltage warning: Displays up to 600 V AC or DC Measurement Capabilities Capacitance measurement supported Leakage current measurement supported Guard system for surface leakage current elimination Ramp function for breakdown testing Automatic DAR and PI calculation Accuracy Specified accuracy valid one year after calibration at 0 °C to 35 °C Temperature derating: ± 0.25 % per °C (–20 °C to 0 °C and 35 °C to 50 °C); ± 1 % per °C for 20% bands Power 12 V lead-acid rechargeable battery Battery life: Over 750 tests per charge Charger input: 85 V to 250 V AC, 50/60 Hz, 20 VA Memory & Data 99 memory locations with user-defined labeling Timed test timer: Up to 99 minutes PC interface supported; compatible with FlukeView Forms™ Basic (Windows XP, Vista, 7, 8) Key Features Large digital/analog LCD display (75 mm $\times$ 105 mm) Operating temperature range: –20 °C to 50 °C Storage temperature range: –20 °C to 65 °C Relative humidity: 80% at 31 °C, decreasing linearly to 50% at 50 °C Maximum altitude: 2000 m Enclosure sealing: IP40 Dimensions: 269 mm $\times$ 277 mm $\times$ 160 mm Weight: 3.7 kg Supplied with test cables and alligator clips Typical Applications Switchgear insulation diagnostics, motor and generator condition assessment, power cable integrity verification, and scheduled maintenance programs requiring high-voltage insulation trending.

Features & description

From manufacturer datasheet

Features

- Selectable test voltages to 10 kV (1555) in 50 V steps 250–1000 V and 100 V steps above 1000 V
- Insulation resistance to 2 T Ω with analog bar graph to 2 T Ω
- Automatic DAR and PI calculation
- Guard system for surface leakage current rejection
- Capacitance and leakage current measurement
- Ramp function for breakdown testing
- Up to 99 labeled memory locations
- Greater than 750 tests between charges (typical battery life claim)
- CAT III 1000 V / CAT IV 600 V measurement safety rating
- 3-year warranty (OEM claim)

Applications

- Insulation resistance testing of HV motors, generators, and switchgear
- Cable insulation evaluation to IEEE 43-2000 voltage ranges
- Polarization Index (PI) and Dielectric Absorption Ratio (DAR) trending
- Breakdown ramp testing on insulation systems
- Capacitance and leakage-current characterization of large assets
- Remote/wireless documentation via Fluke Connect (FC configurations)

1555 Characteristics / Specifications

PARAMETER	VALUE
Model	Fluke 1555
Manufacturer	Fluke
Instrument Type	10 kV Insulation Resistance Tester
Alias	Fluke 1555 FC; Fluke 1555/Kit
Max test voltage DC	10000 V
Test voltage step 250 to 1000 V	50 V
Test voltage step above 1000 V	100 V
IR range at 250 V best band	250 k Ω to 5 G Ω at 5%
IR range at 500 V best band	500 k Ω to 10 G Ω at 5%
IR range at 1000 V best band	1 M Ω to 20 G Ω at 5%
IR range at 2500 V best band	2.5 M Ω to 50 G Ω at 5%
IR range at 5000 V best band	5 M Ω to 100 G Ω at 5%
IR range at 10000 V best band	10 M Ω to 200 G Ω at 5%
IR extended band accuracy	20% (next higher G Ω /T Ω band)
Bar graph range 15	0 to 2 T Ω
Insulation test voltage accuracy	-0% +10% at 1 mA load
Induced AC mains current rejection	2 mA maximum
Capacitive load charge rate	5 seconds per μ F
Capacitive load discharge rate	1.5 s/ μ F
Leakage current range	1 nA to 2 mA
Leakage current accuracy	$\pm$ (5% + 2 nA)
Capacitance range	0.01 μ F to 15.00 μ F
Capacitance accuracy	$\pm$ (15% rdg + 0.03 μ F)
Timer range	0 to 99 minutes
Timer setting resolution	1 minute

PARAMETER	VALUE
Timer indication resolution	1 second
Live circuit warning range	30 V to 660 V AC/DC 50/60 Hz
Live circuit voltage accuracy	±(15% + 2 V)
Display size	75 mm x 105 mm
Battery	12 V lead acid Yuasa NP2.8-12 rechargeable
Charger input	85 V to 250 V AC 50/60 Hz 20 VA
Dimensions	269 mm x 277 mm x 160 mm
Weight	3.7 kg (8.2 lb)
Operating temperature	-20 C to 50 C
Storage temperature	-20 C to 65 C
Humidity	80% to 31 C decreasing linearly to 50% at 50 C
Altitude	2000 m
Enclosure sealing	IP40
Input overload protection	1000 V AC
EMC	EN 61326
Safety measurement	600 V CAT IV / 1000 V CAT III
Safety standards	IEC 61010 1, IEC 61010 2 030, IEC 61557 1, IEC 61557 2
Memory locations	up to 99
Accuracy temperature band primary	0 C to 35 C (1 year after calibration) Notes Specs from Fluke 1555 / 1550C OEM data sheet and Fluke 1555 product page. Confirm FC/ir3000 wireless connector and kit vs base accessories on the unit. Outside 0–35 C, add temperature derating per OEM note.

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	20 C to 65 C
Operating temperature	20 C to 50 C
Operating Temperature	20 C to 50 C
Humidity	80% to 31 C decreasing linearly to 50% at 50 C
Altitude	2000 m
Enclosure sealing	IP40
Input overload protection	1000 V AC
EMC	EN 61326
Safety measurement	600 V CAT IV / 1000 V CAT III
Safety standards	IEC 61010 1, IEC 61010 2 030, IEC 61557 1, IEC 61557 2
Memory locations	up to 99
Accuracy temperature band primary	0 C to 35 C (1 year after calibration) Notes Specs from Fluke 1555 / 1550C OEM data sheet and Fluke 1555 product page. Confirm FC/ir3000 wireless connector and kit vs base accessories on the unit. Outside 0–35 C, add temperature derating per OEM note.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
Specifications	
PARAMETER	VALUE
Model	Fluke 1555
Manufacturer	Fluke
Instrument Type	10 kV Insulation Resistance Tester
Alias	Fluke 1555 FC; Fluke 1555/Kit
Max test voltage DC	10000 V
Test voltage step 250 to 1000 V	50 V
Test voltage step above 1000 V	100 V
IR range at 250 V best band	250 kΩ to 5 GΩ at 5%
IR range at 500 V best band	500 kΩ to 10 GΩ at 5%
IR range at 1000 V best band	1 MΩ to 20 GΩ at 5%
IR range at 2500 V best band	2.5 MΩ to 50 GΩ at 5%
IR range at 5000 V best band	5 MΩ to 100 GΩ at 5%
IR range at 10000 V best band	10 MΩ to 200 GΩ at 5%
IR extended band accuracy	20% (next higher GΩ/TΩ band)
Bar graph range 1555	0 to 2 TΩ
Insulation test voltage accuracy	-0% +10% at 1 mA load
Induced AC mains current rejection	2 mA maximum
Capacitive load charge rate	5 seconds per μF
Capacitive load discharge rate	1.5 s/μF
Leakage current range	1 nA to 2 mA
Leakage current accuracy	±(5% + 2 nA)
Capacitance range	0.01 μF to 15.00 μF
Capacitance accuracy	±(15% rdg + 0.03 μF)
Timer range	0 to 99 minutes
Timer setting resolution	1 minute
Timer indication resolution	1 second

PARAMETER	VALUE
Live circuit warning range	30 V to 660 V AC/DC 50/60 Hz
Live circuit voltage accuracy	±(15% + 2 V)
Display size	75 mm x 105 mm
Battery	12 V lead acid Yuasa NP2.8-12 rechargeable
Charger input	85 V to 250 V AC 50/60 Hz 20 VA
Dimensions	269 mm x 277 mm x 160 mm
Weight	3.7 kg (8.2 lb)
Operating temperature	-20 C to 50 C
Storage temperature	-20 C to 65 C
Humidity	80% to 31 C decreasing linearly to 50% at 50 C
Altitude	2000 m
Enclosure sealing	IP40
Input overload protection	1000 V AC
EMC	EN 61326
Safety measurement	600 V CAT IV / 1000 V CAT III
Safety standards	IEC 61010 1, IEC 61010 2 030, IEC 61557 1, IEC 61557 2
Memory locations	up to 99
Accuracy temperature band primary	0 C to 35 C (1 year after calibration)

Notes

Specs from Fluke 1555 / 1550C OEM data sheet and Fluke 1555 product page. Confirm FC/ir3000 wireless connector and kit vs base accessories on the unit. Outside 0-35 C, add temperature derating per OEM note.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 13, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.