TECHNICAL DATA

Fluke 1663 Installation Multifunction Tester

Key features

- Tests continuity at L-N, N-PE inputs
- Tests smooth dc sensitive RCDs (Type B)
- Tests earth resistance, voltage, and frequency
- Offers multiple test voltages: 50 V, 100 V, 250 V, 500 V, 1000 V
- 6 mA RDC-DD testing for EV charging stations

Product overview: Fluke 1663 Installation Multifunction Tester

Fluke 1663 Multifunction Installation Tester is the ideal choice for hard working professionals

The 1663 installation tester delivers the full-featured functionality and advanced measurement capabilities that professional installers need. It is compact and lightweight (less than 1.3 kg) and comes with a padded carrying and waist strap for convenient handling. Operation is intuitive and easily mastered by all levels of workers so you can put it to work immediately for quick and efficient testing to all local regulations. Additional features like On/Off switchable auto-start for RCD and loop test, as well as a self-test, saves time and gives you more confidence in your results.

Test EV charging station RCD type A-EV or RDC-DD DC protection devices

Perform tests on EV charging station DC protection devices using the RCD type B (smooth DC currents) VAR mode,

which generates the test currents for RCD type A-EV or RDC-DD acc. to IEC 62955 (6/60/200 mA and ramp <2 to 6 mA ramp). This allows the quick an easy testing of additional 6 mA DC monitors on charging points and can be used in conjunction with the Fluke FEV100 or FEV300.

Software compatible

The Fluke 1663 is compatible with TruTest™, a Fluke software designed to eliminate the hassle associated with traditional electrical system data management and reporting. Whether you are testing fixed wire installations, or appliances in an office, verifying repairs in a workshop, or performing annual inspections, proper data management is critical for producing easy-to-understand reports for clients. TruTest™ Software allows you to quickly and easily import measurement results directly from your test instruments, manage files transferred from instruments, or manually enter data as needed.

Other useful capabilities:

- Checks wiring polarity to detect broken N wires
- Measures insulation resistance and loop and line resistance
- Includes Z-max memory for loop tests to support easy evaluation of the highest loop test value
- Provides unique zero adapter for fast, reliable and accurate test lead and mains cord compensation
- Measures motor windings with continuity test
- Calculates prospective earth fault current (PEFC/IK) and prospective short-circuit current (PSC/IK)
- Measures RCD switching time and tripping level (ramp test)
- Measures trip time and current for RCD type A & AC in one test
- Measures RCD variable current
- Provides automatic RCD test sequence
- Includes a phase sequence indicator
- Safety rated CAT III 500V, CAT IV 300V

Specifications: Fluke 1663 Installation Multifunction Tester

Specifications: Fluke 1663 and 1664 FC Installation Multifunction Testers

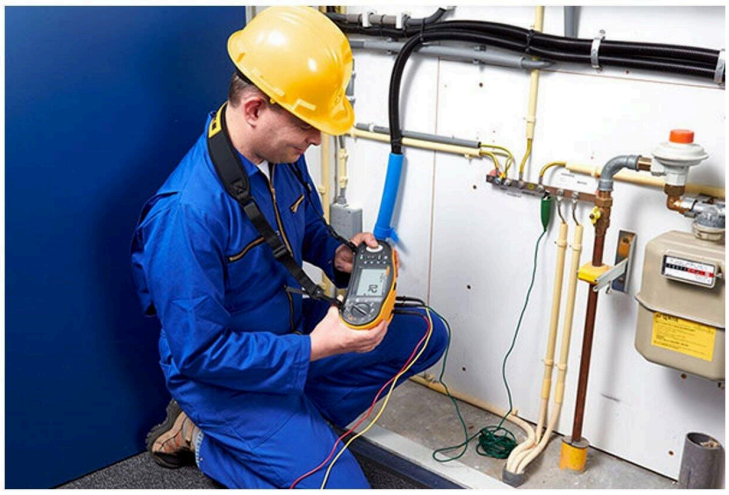
AC voltage measurement	
Range	500 V
Resolution	0.1 V
Accuracy 45 Hz – 66 Hz	0.8% + 3
Input impedance	360 kΩ
Overload protection	660 V rms
Continuity testing (RLO)	
Range (autoranging)	20 Ω / 200 Ω / 2000 Ω
Resolution	0.01 Ω / 0.1 Ω / 1 Ω
Open Circuit Voltage	>4 V
Insulation resistance measurement (RISO)	
Test voltages	50-100-250-500-1000 V

Accuracy of test voltage (at rated test current)	+10%, -0%
Test voltage	50 V 100 V 250 V 500 V 1000 V
Insulation resistance range	20 MΩ / 50 MΩ 20 MΩ / 100 MΩ 20 MΩ / 200 MΩ 20 MΩ / 200 MΩ / 500 MΩ 20 MΩ / 200 MΩ / 1000 MΩ
Resolution	0.01 MΩ / 0.1 MΩ 0.01 MΩ / 0.1 MΩ 0.01 MΩ / 0.1 MΩ 0.01 MΩ / 0.1 MΩ / 1 MΩ 0.01 MΩ / 0.1 MΩ / 1 MΩ
Test current	1 mA @ 50 kΩ 1 mA @ 100 kΩ 1 mA @ 250 kΩ 1 mA @ 500 kΩ 1 mA @ 1 MΩ
Loop and line impedance (ZI)	
Range	10 Ω (Hi current mΩ mode)/20 Ω/200 Ω/2000 Ω
Resolution	0.001 Ω/ 0.01 Ω/ 0.1 Ω/1 Ω
Prospective earth fault current, PSC test	
Range	1000 A / 10 kA (50 kA)
Resolution	1 A / 0.1 kA
Computation	Prospective earth fault current (PEFC) or Prospective short circuit current (PSC) determined by dividing measured mains voltage by measured loop (L-PE) resistance or line (L-N) resistance, respectively.
RCD testing, RCD types tested	
RCD Type	AC[1] G[2],S[3]
Model 1663	A4, AC[1], G[2],S[3]
Model 1664 FC	A, AC, B5, S

Notes	[1]Responds to AC [2]General, no delay [3]Time delay [4]Responds to pulsed signal [5]Responds to smooth DC signal	
Tripping speed test (ΔT)		
Current settings[1]	10-30-100-300-500-1000 mA – VAR 10-30-100 mA	
Multiplier	x ½, x 1 x 5 VAR Mode Type B - 6, 60, 200 mA	
Measurement range	RCD Type G	310 ms 50 ms
	RCD Type S	510 ms 160 ms
	EV / RDC-DD	6 mA - 10s 60 mA - 0.3s 200 mA - 0.1s
Notes	[1]1000 mA type AC only 700 mA maximum type A in VAR mode The VAR Mode at RCD type B (smooth DC currents) generates the test currents acc. to IEC 62955 for RCD type A-EV or RDC-DD (6/60/200 mA and ramp <2 to 6 mA).	
RCD/FI-Tripping Current Measurement/Ramp Test (IΔN)		
Current range	30% to 110% of RCD rated current[1] <2 mA to 6 mA smooth DC[3]	
Step size	10% of IΔN[2] Linear rising within 30 s	
Dwell time	RCD Type G	300 ms/step
	RCD Type S	500 ms/step
Measurement accuracy	±5%	
Specified trip current ranges (EN 61008-1)	50% to 100% for Type AC 35% to 140% for Type A (>10 mA) 35% to 200% for Type A (≤10 mA) 50% to 200% for Type B	

Notes	[1]30% to 150% for Type A IΔN > 10 mA 30% to 210% for Type A IΔN = 10 mA 20% to 210% for Type B [2]5% for Type B [3]For RCD type A-EV/RDC-DD acc. to IEC 62955
Earth Resistance Test (RE)	
Range	200 Ω / 2000 Ω
Resolution	0.1 Ω / 1Ω
Frequency	128 Hz
Output Voltage	25 V
Phase Sequence Indication	
Icon	 Phase Sequence indicator is active.
General Specifications	
Size (L x W x H)	10 x 25 x 12.5 cm
Weight (incl. batteries)	1.3 Kg
Battery size, quantity	Type AA, 6 ea.
Sealing	IP-40
Safety	Complies with EN/IEC 61010-1 and EN/IEC 61010-2-034
Overvoltage	CAT III / 500V; CAT IV 300V
Performance	EN61557-1 to EN61557-7 and EN61557-10

Ordering information



FLK-1663

Fluke 1663 Installation Multifunction Tester

Includes:

- 6x AA (IEC LR6) cell batteries
- C1600 hard carrying case
- Zero adapter
- Heavy duty mains cord
- STD standard test lead set
- Padded carrying and waist strap
- Quick reference guide
- TP165X remote control probe and lead

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