TECHNICAL DATA

Fluke 1664 FC Installation Multifunction Tester

Key features

Multifunction tester that tests to all local regulations

- Includes "Insulation Pre-test" that detects when appliances are connected to the system and stops the test
- Runs seven installation tests automatically in one sequence with a single connection through Auto Test
- Allows you to share test results in real time over your smartphone via Fluke Connect Measurements
- 6 mA RDC-DD testing for EV charging stations

Product overview: Fluke 1664 FC Installation Multifunction Tester

The Fluke 1664 FC Multifunction Installation Tester helps expedite installations

The 1664 FC puts a lot of testing power in your hands to quickly and efficiently test to all local regulations, protect appliances, and share test results in real time over your smartphone.

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.

Protect appliances from accidental damage

The Fluke 1664 FC is the only tester with ""Insulation PreTest"" that stops the insulation test and provides a visual warning if it detects that an appliance is connected to the system under test. This helps you avoid potentially serious and costly mistakes that can cause damage to your customers' peripheral equipment.

Auto Test reduces test time

Auto Test performs up to seven installation tests in one sequence, ensuring compliance with local installation regulations. This reduces the number of manual connections, thus decreasing the possibility of errors and reducing test time.

Save time and enhance collaboration

Because the 1664 FC is Fluke Connect®-enabled, you can send test results to your smartphone, save them to the cloud, and share measurements in real time with team members through a ShareLive video call. It's the fastest way to let your team see what you see, and to help you get approvals without leaving the field. Fluke Cloud™ storage allows you to retrieve stored results whether you are in the office or in the field to make decisions in real time. You get world-class data protection and can import the data, manage files transferred from instruments, or manually enter data as needed into TruTest™ Software to process and generate certificates quickly and easily. Designed to eliminate the hassle associated with traditional electrical system data management and reporting, TruTest™ Software is an ideal solution for producing easy-to-understand reports for clients.

Other helpful features:

- Compact, lightweight (less than 1.3 kg) with padded neck-strap to free your hands
- Rotary dial knob clearly indicates which function is selected, all in one spot with no complex multi-level menus.
- Offers additional high current loop mode for faster measurements than loop tests with non-trip mode for RCDs
- 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
- Performs fast voltage measurement between L-N, L-PE, and N-PE using the mains cord. No need to change measurement connections
- Measures RCD trip current and trip time in parallel (RCD type AC and A)
- Measures PEFC or PSC and loop impedance in parallel and displays them together on the dual display
- Offers ring testing so you can select the required input sockets with soft keys and not have to exchange test leads
- Uses continuity test currents to measure motor windings
- Detects raised earth voltages > 50 V with Earth Volt Touchpad, indicating potential dangerous situations
- Features large display with backlight, clear symbols, and exceptionally wide viewing angle for easy and safe readings
- Offers extended three-layer memory

Specifications: Fluke 1664 FC Installation Multifunction Tester

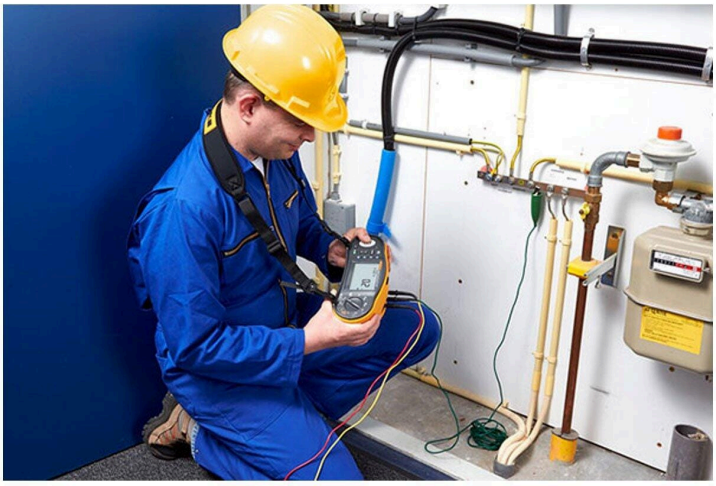
Specifications: Fluke 1663 and 1664 FC Installation Multifunction Testers

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-1664FC

Fluke 1664 FC Installation Multifunction Tester

Part#: 4884288
UPC#: 095969850148

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

Preventive maintenance simplified. Rework eliminated.

Save time and improve the reliability of your maintenance data by wirelessly syncing measurements using the Fluke Connect® system.

- Eliminate data-entry errors by saving measurements directly from the tool and associating them with the work order, report or asset record.
- Maximize uptime and make confident maintenance decisions with data you can trust and trace.
- Access baseline, historical and current measurements by asset.
- Move away from clipboards, notebooks and multiple spreadsheets with a wireless one-step measurement transfer.
- Share your measurement data using ShareLive™ video calls and emails.

Find out more at **flukeconnect.com**

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