FLUKE®

320 Series True-rms Clamp Meters

Fluke rugged. Fluke precise. Fluke reliable.

Technical Data

The Fluke 323, 324 and 325 Clamp Meters are designed to perform in the toughest environments and provide noise-free, reliable results users can trust to confidently diagnose problems. True-rms measurements and optimized ergonomics make the 320 Series Clamp Meters the best general troubleshooting tools for commercial and residential electricians.

New

Measurement capability

- 400 A ac current measurement (ac and dc current; 325 only)
- 600 V ac and dc voltage measurement
- True-rms ac voltage and current for accurate measurements on non-linear signals
- Resistance measurement to up to 40 kΩ with continuity detection
- Temperature and capacitance measurement (324 and 325 only)
- Frequency measurement (325 only)

Features

- Slim, ergonomic design
- Large, easy to read backlight display (324 and 325 only)
- CAT IV 300 V/CAT III 600 V safety rating
- Hold button
- Two-year warranty
- Soft carrying case

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Specifications

		323	324	325
AC current	Range	400.0 A	40.00 A/400.0 A	40.00 A/400.0 A
	Accuracy	2 % ± 5 digits (45 Hz to 65 Hz) 2.5 % ± 5 digits (65 Hz to 400 Hz)	1.5 % ± 5 digits (45 Hz to 400 Hz) Note: Add 2 % for position sensitivity	2 % ± 5 digits (45 Hz to 65 Hz) 2.5 % ± 5 digits (65 Hz to 400 Hz)
DC current	Range	—	—	40.00 A/400.0 A
	Accuracy	—	—	2 % ± 5 digits
AC voltage	Range	600.0 V	600.0 V	600.0 V
	Accuracy	1.5 % ± 5 digits	1.5 % ± 5 digits	1.5 % ± 5 digits
DC voltage	Range	600.0 V	600.0 V	600.0 V
	Accuracy	1.0 % ± 5 digits	1.0 % ± 5 digits	1.0 % ± 5 digits
Resistance	Range	400.0 Ω/4000 Ω	400.0 Ω/4000 Ω	400.0 Ω/4000 Ω/40.00 kΩ
	Accuracy	1 % ± 5 digits	1 % ± 5 digits	1 % ± 5 digits
Continuity		≤ 70 Ω	≤ 30 Ω	≤ 30 Ω
Capacitance		—	100.0 µF to 1000 µF	100.0 µF to 1000 µF
Frequency		—	—	5.0 Hz to 500.0 Hz
AC response		True-rms	True-rms	True-rms
Backlight		—	Yes	Yes
Data hold		Yes	Yes	Yes
Contact temperature		—	-10.0 °C to 400.0 °C (14.0 °F to 752.0 °F)	-10.0 °C to 400.0 °C (14.0 °F to 752.0 °F)
Min/Max		—	—	Yes
Size	H x W x D (mm)	207 x 75 x 34	207 x 75 x 34	207 x 75 x 34
	Max wire diameter	30 mm (600 MCM)	30 mm (600 MCM)	30 mm (600 MCM)
	Weight	265 g	208 g	283 g
Category rating		CAT III 600 V CAT IV 300 V	CAT III 600 V CAT IV 300 V	CAT III 600 V CAT IV 300 V
Warranty		Two-year	Two-year	Two-year

Ordering information

323 True-rms Clamp Meter
324 True-rms Clamp Meter
325 True-rms Clamp Meter

Included with all models
Clamp meter, test leads, soft case, and users manual.

Fluke. *Keeping your world up and running.*®

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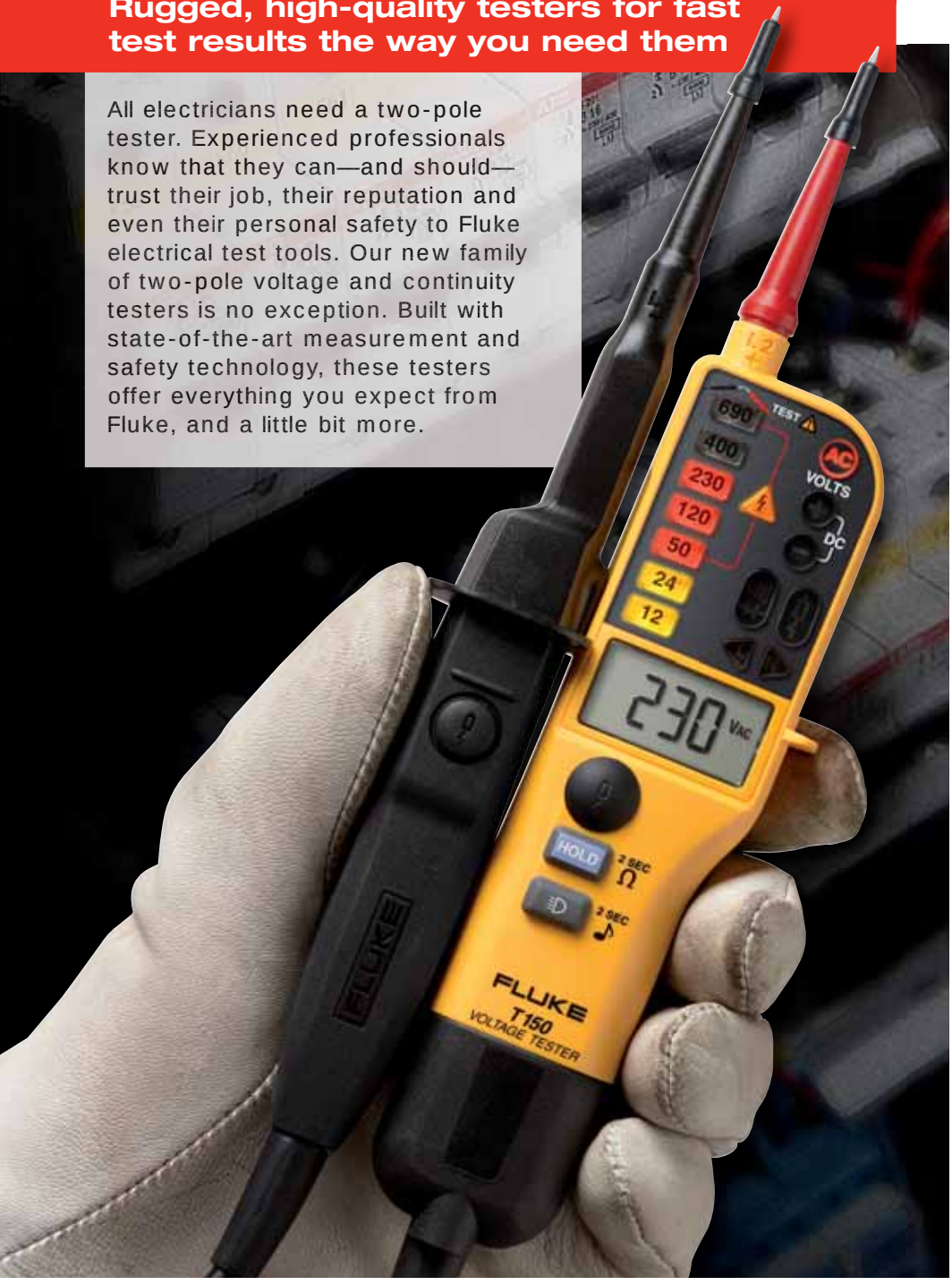
Printed in U.S.A. 5/2012 4217271A_EN
Pub_ID: 11932-eng

FLUKE®

T90/T110/T130/T150
Voltage and Continuity Testers

Technical Data

Rugged, high-quality testers for fast test results the way you need them



All electricians need a two-pole tester. Experienced professionals know that they can—and should—trust their job, their reputation and even their personal safety to Fluke electrical test tools. Our new family of two-pole voltage and continuity testers is no exception. Built with state-of-the-art measurement and safety technology, these testers offer everything you expect from Fluke, and a little bit more.

Listening to customers. Making better tools.

The new Fluke two-pole voltage and continuity testers are now more rugged and easier to use than ever before.

- Fast test results the way you need them, with large, easy-to-use buttons, bright backlights, and clear audible and physical indicators designed for any work situation.
- Rugged, high-quality construction is built to last. This includes a heavy duty molded case, a thicker cord with wear indicator, sturdy battery case, and well-fitting and durable probe protector.
- Enhanced ergonomic design feels good in your hand, is easy to use (even with gloves) and quick, secure probe docking.
- A complete family of testers with the features, functions, and price/performance to fit your applications and preferences.

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Built to work the way you work

Fluke's new two-pole testers are built with you in mind. They give you the best combination of safety, ease-of-use and fast answers available anywhere.

- **CAT IV 600 V, CAT III 690 V safety rating.** Fluke's new family of two-pole testers comply with both regulation HSE GS 38 (tip caps) and IEC EN 61243-3: 2010, the most recent and applicable standards for this type of test equipment.
- **4 ways to detect ac/dc voltage.** Fluke two-pole testers make answers easy to understand, indicating voltage four ways: A clear, instantly visible LED indicator, a bright digital display of the measurement value, an audible continuity test, and vibration to give tactile feedback (vibration indicator on T110, T130, T150). It's your preference. Use the most effective method for each situation.

- **Backlit graduated scale and backlit indicators.** Bright backlights ensure that the buttons and the indicators are visible under any lighting conditions—and you can easily see and understand the answers.
- **Vibration provides tactile feedback (T110, T130, T150).** Even when viewing the display or hearing the beeper is difficult, you'll know voltage is present. This is especially useful in noisy environments, or when you can't take your eyes off the probes.
- **Audio on/off for testing in quiet areas.** If you're working in quiet surroundings, such as a medical or office setting, you don't want to disturb people in the vicinity with noises. The tester's acoustic alert switches on or off to fit your environment.
- **Never guess whether your batteries are in good working order.** The low battery indicator gives you advance warning when they fall below proper working voltage.
- **Detects voltage even with discharged batteries.** The tester can still detect the presence of voltage (>50 V ac, >120 V dc) even with dead batteries, an important safety feature. You should always use your two-pole tester with working batteries, but for that rare time when your batteries fail in the field, it's nice to know you still have this one indication of live voltage.
- **Improved probe docking for secure storage**.When the probes are docked, the two-pole tester is ready to use, with proper spacing for instant testing on standard outlets. If you've ever been frustrated with wobbly probes that slowed you down, you'll appreciate Fluke's rugged design.
- **Phase rotation indicator for 3-phase systems.** Where three-phase power supplies feed motors, drives and electrical systems, use Fluke's innovative three-phase rotation detection system to quickly determine phase sequence. Ensure the system is wired correctly, without reaching for another tool.
- **RCD functionality.** Convenient two-button controls allow you to draw more current from the circuit under test and intentionally trip Residual-Current Devices (RCDs) remotely and determine if they are wired correctly. A Quick Start Guide covering the basics of RCD testing is included with the product.
- **Display hold (T130, T150).** Focus on placing your probes, take the measurement, then read the LC display.
- **Built in electric torch (T110, T130, T150).** Light up dim testing environments at the touch of a button for faster, safer probing.

- **Single-phase voltage offers fast identification of live conductors**. Need to verify that a row of "hot" conductors are indeed connected to power? The two-pole tester can tell with you a single touch of the main probe. Simply touch a live conductor and the probe instantly give an audible and visual signal if the power is on. A great timesaver before you begin actual testing.
- **Probe tip protection adapts to your changing environment.** Push-on probe tips reduce metal exposure from 19 mm to 4 mm, reducing the chance of accidentally touching the wrong conductor when probing in tight spaces. The probe tips of the two-pole tester are threaded, taking optional screw-on 4 mm diameter tips for applications where more sturdy probing may be required.

- **Probe tip protector and storage accessory.** Never lose the push-on caps and 4 mm diameter tips again. As a bonus, the tool's storage serves as an extra hand when opening UK electrical safety outlets.
- **Resistance testing (T150)**. Testers measure and display resistance up to 1999 ohms, adding more power and versatility to this essential tester.
- **WearGuard™ insulation shows damage to test leads**. The two-pole tester's rugged, durable test leads have two layers of insulation for added durability. But if the inner, contrasting-colored layer is showing, that's a sign that the test leads have been damaged and replacement is in order.

Selection table

Features	T90	T110	T130	T150
Backlit LED indicator	•	•	•	•
Backlit LCD digital display			LCD	LCD
Continuity test—visual results	•	•	•	•
Continuity test—audible results	•	• with on/off	• with on/off	• with on/off
Vibratory indicator under load		•	•	•
Display hold			•	•
Voltage test	•	•	•	•
Indication of polarity	•	•	•	•
Resistance measurement				•
Switchable load		•	•	•
Single pole test for phase detection	•	•	•	•
Rotary field indicator		•	•	•
Probe tip protection	•	•	•	•
Voltage display with discharged batteries	•	•	•	•
Electrical torch function		•	•	•
Wear indicator test lead wire	•	•	•	•

Specifications

	T90	T110	T130	T150
Voltage ac/dc	12 V to 690 V	12 V to 690 V	6 V to 690 V	6 V to 690 V
Continuity	0 to 400 kΩ			
Frequency	0 / 40 to 400 Hz			
Phase rotation	—	100 V to 690 V		
Resistance measurement	—	—	—	Up to 1999 Ω
Response time (LED indicator)	< 0.5 s			
200 kΩ input impedance	Current draw 3.5 mA @ 690 V, Current draw 1.15 mA @ 230 V			
7 kΩ input impedance (with load buttons pressed)	—	Current draw 30 mA @ 230 V		
Safety rating	CAT II 690 V CAT III 600 V	CAT III 690 V, CAT IV 600 V		
IP rating	IP54	IP64	IP64	IP64

General specifications

Power requirement	2-AAA batteries
Net weight	180 g (6.4 oz) (T90) 280 g (9.9 oz) (T110. T130, T150)
Size (LxWxH)	23 cm x 6.5 cm x 3.8 cm (T90) 26 cm x 7 cm x 3.8 cm (T110. T130, T150)
Warranty	2 years
Country of origin	Romania

Ordering information

FLUKE-T90 Voltage/Continuity Tester
FLUKE-T110 Voltage/Continuity Tester With Switchable Load
FLUKE-T130 Voltage/Continuity Tester With LCD, Switchable Load
FLUKE-T150 Voltage/Continuity Tester With LCD, Ohms, Switchable Load

Fluke. *The Most Trusted Tools in the World.*

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Printed in U.S.A. 11/2012 4115552A D-EE

Pub_ID: 11842-eng