FLUKE®

283 FC

True-RMS 1500 V Multimeter

Safety Information



Lifetime Limited Warranty.
See the Users Manual for the full warranty.

To register your product, or to view, print, or download the latest manual or manual supplement, go to our website: www.fluke.com/productinfo.

Safety Information

A **Warning** identifies hazardous conditions and procedures that are dangerous to the user. A **Caution** identifies conditions and procedures that can cause damage to the Product or the equipment under test.

⚠⚠ Warning

To prevent possible electrical shock, fire, or personal injury:

- **Read all safety information before you use the Product.**
- **Do not alter the Product and use only as specified, or the protection supplied by the Product can be compromised.**
- **Carefully read all instructions.**
- **Do not use the Product if it operates incorrectly.**

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- **Do not touch voltages >30 V ac rms, 42 V ac peak, or 60 V dc.**
- **Do not work alone.**
- **Limit operation to the specified measurement category, voltage, or amperage ratings.**
- **Do not exceed the Measurement Category (CAT) rating of the lowest-rated individual component of a Product, probe, or accessory.**
- **Use Product-approved Measurement Category (CAT), voltage, and amperage-rated accessories (probes, test leads, and adapters) for all measurements.**
- **Do not make connections on hazardous live conductors in damp or wet environments.**
- **Comply with local and national safety codes. Use personal protective equipment (approved rubber gloves, face protection, and flame-resistant clothes) to prevent shock and arc blast injury where hazardous live conductors are exposed.**
- **Do not use the self-check feature to replace local and national safety code requirements.**
- **Do not connect to live output terminals. The Product can supply voltages that can cause death. Standby mode is not sufficient to prevent electrical shock.**
- **Do not operate the Product with covers removed or the case open. Hazardous voltage exposure is possible.**
- **Do not touch exposed metal on banana plugs, they can have voltages that could cause death.**
- **Remove the input signals before you clean the Product.**
- **Do not use test leads if they are damaged. Examine the test leads for damaged insulation, exposed metal, or if the wear indicator shows. Check test lead continuity.**
- **Measure a known voltage first to make sure that the Product operates correctly.**
- **Use the correct terminals, function, and range for measurements.**
- **Do not use the Product around explosive gas, vapor, or in damp or wet environments.**
- **Use only specified replacement parts.**
- **Have an approved technician repair the Product.**
- **Do not use the HOLD function to measure unknown potentials. When HOLD is turned on, the display does not change when a different potential is measured.**
- **Disable the Product if it is damaged.**

- **Examine the case before you use the Product. Look for cracks or missing plastic. Carefully look at the insulation around the terminals.**
- **Disconnect power and discharge all high-voltage capacitors before you measure resistance, continuity, capacitance, or a diode junction.**
- **Do not use exposed metal BNC or banana plug connectors.**
- **Keep fingers behind the finger guards on the probes.**
- **Do not use in CAT III or CAT IV environments without the protective cap installed on test probe. The protective cap decreases the exposed probe metal to <4 mm. This decreases the possibility of arc flash from short circuits.**
- **Do not use test leads if they are damaged. Examine the test leads for damaged insulation and measure a known voltage.**
- **Batteries contain hazardous chemicals that can cause burns or explode. If exposure to chemicals occurs, clean with water and get medical aid.**
- **Repair the Product before use if the battery leaks. Battery leakage may create a shock hazard or damage the Product.**
- **Remove the batteries if the Product is not used for an extended period of time, or if stored in temperatures above 50 °C. If the batteries are not removed, battery leakage may result.**
- **The battery door must be closed and locked before you operate the Product.**
- **Do not disassemble or crush battery cells and battery packs.**
- **Do not put battery cells and battery packs near heat or fire. Do not put in sunlight.**
- **Remove all probes, test leads, and accessories before the battery door is opened.**
- **Use replacement cells that have closely-matched capacities, are of the same design, chemistry, age, and are from the same manufacturer. Mismatched batteries can lead to gas formation and subsequent cell rupture.**

⚠ Warning

For safe operation and maintenance of the product, replace the batteries when the low battery indicator shows to prevent incorrect measurements.

Symbols

The table below is a list of the symbols that can be used on the Product or in this document.

Symbol	Description
	Consult user documentation.
	WARNING. HAZARDOUS VOLTAGE. Risk of electric shock.
	WARNING. RISK OF DANGER.
OFF	Power OFF
	Battery
CAT II	Measurement Category II is applicable to test and measuring circuits connected directly to utilization points (socket outlets and similar points) of the low-voltage MAINS installation.
CAT III	Measurement Category III is applicable to test and measuring circuits connected to the distribution part of the building's low-voltage MAINS installation.
CAT IV	Measurement Category IV is applicable to test and measuring circuits connected at the source of the building's low-voltage MAINS installation.
CE	Conforms to European Union directives.
	This product complies with the WEEE Directive and its marking requirements. The affixed label indicates that you must not discard this electrical/electronic product in domestic household waste. Do not dispose of this product as unsorted municipal waste. For information about take-back and recycling programs available in your country, see the Fluke website.

Specifications

Maximum Voltage between any Terminal and Earth Ground.....1500 V

Battery (x3).....IEC LR6

Temperature

Operating .....-10 °C to 60 °C (14 °F to 140 °F)

Storage .....-30 °C to 70 °C (22 °F to 158 °F)

Operating Relative Humidity.....0 % to 90 %, 10 °C to 30 °C (50 °F to 86 °F)
0 % to 75 %, 30 °C to 40 °C (86 °F to 104 °F)
0 % to 45 %, 40 °C to 60 °C (104 °F to 140 °F)

Altitude

Operating ..... ≤2000 m

Storage .....12 000 m

Ingress Protection.....IEC 60529: IP52

Safety .....IEC 61010-1: Pollution Degree 2
IEC 61010-2-033: CAT III 1500 V/CAT IV 1000 V

Electromagnetic Compatibility (EMC)

International ..... IEC 61326-1/IEC 61326-2-2: Portable Electromagnetic Environment, CISPR 11: Group 1, Class A

Group 1: Equipment has intentionally generated and/or uses conductively-coupled radio frequency energy that is necessary for the internal function of the equipment itself.

Class A: Equipment is suitable for use in all establishments other than domestic and those directly connected to a low-voltage power supply network that supplies buildings used for domestic purposes. There may be potential difficulties in ensuring electromagnetic compatibility in other environments due to conducted and radiated disturbances.

Caution: This equipment is not intended for use in residential environments and may not provide adequate protection to radio reception in such environments.

Emissions that exceed the levels required by CISPR 11 can occur when the equipment is connected to a test object.

Korea (KCC).....Class A Equipment (Industrial Broadcasting & Communication Equipment)

Class A: Equipment meets requirements for industrial electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and not to be used in homes.

Wireless Radio

Frequency Range.....2400 MHz to 2483.5 MHz

Output Power .....<100 mW

SIMPLIFIED EU DECLARATION OF CONFORMITY

Hereby, Fluke declares that the radio equipment contained in this Product is in compliance with European Union's Radio Equipment Directive (RED). The full text of the EU declaration is available at the following internet address: www.fluke.com/red