

# 279 FC

## True-rms Thermal Multimeter

### *Safety Information*



**3-Year Limited Warranty.**

See the Users Manual for the full warranty.

Go to [www.fluke.com](http://www.fluke.com) to register your Product, read the Users Manual, and find more information.

A **Warning** identifies conditions and procedures that are dangerous to the user.

#### **Warnings**

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

- **Carefully read all instructions.**
- **Read all safety information before you use the Product.**
- **Use the Product only as specified, or the protection supplied by the Product can be compromised.**
- **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.**
- **Examine the case before you use the Product. Look for cracks or missing plastic. Carefully look at the insulation around the terminals.**
- **Do not use the Flexible Current Probe if it has damaged insulation, exposed metal, or if the wear indicator is visible.**
- **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.**
- **The battery door must be closed and locked before you operate the Product.**

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Specifications are subject to change without notification.

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







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корпус 9, подъезд 4, 1 этаж

- Do not touch voltages >30 V ac rms, 42 V ac peak, or 60 V dc.
- Use Product-approved measurement category (CAT), voltage, and amperage rated accessories (probes, test leads, and adapters) for all measurements.
- Do not exceed the Measurement Category (CAT) rating of the lowest rated individual component of a Product, probe, or accessory.
- Measure a known voltage first to make sure that the Product operates correctly.
- Limit operation to the specified measurement category, voltage, or amperage ratings.
- Do not use the Product above its rated frequency.
- 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 apply more than the rated voltage, between the terminals or between each terminal and earth ground.
- De-energize the circuit or wear personal protective equipment in compliance with local requirements before you apply or remove the Flexible Current Probe.
- Disconnect power and discharge all high-voltage capacitors before you measure resistance, continuity, capacitance, or a diode junction.
- 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.
- Do not use a Low Pass Filter measurement to verify the presence of hazardous voltages. Voltages greater than what is indicated may be present. Make a voltage measurement without the filter to detect the possible presence of hazardous voltage before you select the filter function.
- Do not measure ac current in circuits carrying more than 1000 V or 2500 A with the Flexible Current Probe.
- Do not apply the Flexible Current Probe around or remove from HAZARDOUS LIVE conductors.
- Do not use the Flexible Current Probe if the inner contrasting insulation color is showing.
- Take special care during fitting and removal of the Flexible Current Probe. De-energize the installation under test or wear suitable protective clothing.
- For IR Camera mode, see emissivity information for actual temperatures. Reflective objects result in lower than actual temperature measurements. These objects pose a burn hazard.
- Remove the input signals before you clean the Product.
- Use only specified replacement parts.
- Have an approved technician repair the Product.
- Disconnect the battery charger and move the Product or battery to a cool, non-flammable location if the rechargeable battery becomes hot (>50 °C) during the charge period.
- Replace the rechargeable battery after 5 years of moderate use or 2 years of heavy use. Moderate use is defined as recharged twice a week. Heavy use is defined as discharged to cutoff and recharged daily.
- Batteries contain hazardous chemicals that can cause burns or explode. If exposure to chemicals occurs, clean with water and get medical aid.
- Do not short the battery terminals together.

- 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.

## Symbols

Symbol	Description
	WARNING. RISK OF DANGER.
	WARNING. HAZARDOUS VOLTAGE. Risk of electric shock.
	Consult user documentation.
	Double Insulated
	Earth
	Battery
<b>CAT II</b>	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.
<b>CAT III</b>	Measurement Category III is applicable to test and measuring circuits connected to the distribution part of the building's low-voltage MAINS installation.
<b>CAT IV</b>	Measurement Category IV is applicable to test and measuring circuits connected at the source of the building's low-voltage MAINS installation.
	Conforms to European Union directives.
	Certified by CSA Group to North American safety standards.
	Conforms to relevant South Korean EMC standards.
	Conforms to relevant Australian EMC standards.
	This product contains a Lithium-ion battery. Do not mix with the solid waste stream. Spent batteries should be disposed of by a qualified recycler or hazardous materials handler per local regulations. Contact your authorized Fluke Service Center for recycling information.
	This product complies with the WEEE Directive marking requirements. The affixed label indicates that you must not discard this electrical/electronic product in domestic household waste. Product Category: With reference to the equipment types in the WEEE Directive Annex I, this product is classed as category 9 "Monitoring and Control Instrumentation" product. Do not dispose of this product as unsorted municipal waste.

# Safety Specifications

**Maximum Voltage between any Terminal and Earth Ground** ..... 1000 V

## Temperature

Operating..... -10 °C to +50 °C

Storage

(without battery)..... -20 °C to +60 °C

**Battery (BP500)**..... Li-ion 7.4 V, 3000 mAh, customer-replaceable

Discharge ..... -10 °C to +50 °C

Charge..... 0 °C to +40 °C

Storage..... -20 °C to +35 °C

**Relative Humidity** ..... 0 % to 90 % (0 °C to 35 °C)  
0 % to 75 % (35 °C to 40 °C)  
0 % to 45 % (40 °C to 50 °C)

## Altitude

Operating..... 2000 m

Storage..... 12 000 m

## Safety

General..... IEC 61010-1: Pollution Degree 2

Measurement ..... IEC 61010-2-032: CAT IV 600 V / CAT III 1000 V

IEC 61010-2-033: CAT IV 600 V / CAT III 1000 V

Li-ion Battery ..... IEC 62133

## Electromagnetic Compatibility (EMC)

International..... IEC 61326-1: Portable Electromagnetic Environment

CISPR 11: Group 1, Class A,  
IEC 61326-2-2

*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.*

*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..... 2405 MHz to 2480 MHz

Output Power ..... <10 mW