

# Fluke 287C Fluke 289C True RMS Digital Multimeter Electronic Recording Data Industrial Multimeter High Precision Meter

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**FLUKE®**



## Product overview: Fluke 287 True-RMS Electronics Logging Multimeter

**Now compatible with Fluke Connect® Mobile App**

The Fluke 287 True-rms Electronics Logging Multimeter with TrendCapture quickly documents design performance and graphically displays what happened. Its unique logging and graphing capabilities mean you no longer need to download logged readings to a PC to detect a trend. The Fluke 287 packs more accuracy and convenience into a handheld multimeter than ever before:

- Zoom on trend provides unprecedented ability to view and analyze TrendCapture data; zoom in up to 14 times.
- Selectable AC filter (smoothing mode) helps display a steadier reading when the input signal is changing rapidly or noisy.
- Adjustable recording and auto hold thresholds, specify a percentage change in the readings that begins a new event.
- Large 50,000 count, 1/4 VGA display with white backlight. Multiple sets of measurement information can be simultaneously displayed at the same time.
- Logging function with expanded memory for unattended monitoring of signals over time. Using on-board TrendCapture users can graphically review logged readings without needing a PC. Store up to 15,000 recorded events.
- On board help screens for measurement functions.
- Saved measurements allow you to name and recall measurements made in the field.
- Multi-lingual interface.
- Multiple logging sessions possible without download.
- 0.025% basic DC accuracy.
- 100 kHz AC bandwidth.
- Real time clock for automatic time stamping of saved readings.
- True-RMS AC voltage and current for accurate measurements on complex signals or non-linear loads. AC bandwidth specified to 100 kHz.
- Measure up to 10 A (20 A for 30 seconds).
- 100 mF capacitance range.
- Temperature function.
- Relative mode to remove test lead resistance from low ohms or capacitance measurements. • Peak capture to record transients as fast as 250  $\mu$ s.
- Premium test leads and alligator clips included.
- Amp jack plugs included.
- Optional FlukeView forms enable you to document, store and analyze individual readings or a series of measurements, then convert them into professional-looking documents.
- Optional magnetic hanger allows you to hang the meter for easy viewing while freeing your hands to focus on the job.

# Specifications: Fluke 287

## Specifications

### Function

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DC volts	<b>Range / resolution</b>	50.000 mV, 500.00 mV, 5.0000 V, 50.000 V, 500.00 V, 1000.0 V
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Basic accuracy	0.025%
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AC volts	<b>Range / resolution</b>	50.000 mV, 500.00 mV, 5.0000 V, 50.000 V, 500.00 V, 1000.0 V
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Basic accuracy	0.4% (True-RMS)
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DC current	<b>Range / resolution</b>	500.00 $\mu$ A, 5000.0 $\mu$ A, 50.000 mA, 400.00 mA, 5.0000 A, 10.000 A
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Basic accuracy	0.05%
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AC current	<b>Range / resolution</b>	500.00 $\mu$ A, 5000.0 $\mu$ A, 50.000 mA, 400.00 mA, 5.0000 A, 10.000 A
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Basic accuracy	0.6% (True-RMS)
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Temperature (excluding probe)	<b>Range / resolution</b>	-200.0°C to 1350.0°C (-328.0°F to 2462.0°F)
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Basic accuracy	1.0%
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Resistance	<b>Range / resolution</b>	500.00 $\Omega$ , 5.0000 k $\Omega$ , 50.000 k $\Omega$ , 500.00 k $\Omega$ , 5.0000 M $\Omega$ , 50.00 M $\Omega$ , 500.0 M $\Omega$
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	Basic accuracy	0.05%
Capacitance	<b>Range / resolution</b>	1.000 n, 10.00 nF, 100.0 nF, 1.000 $\mu$ F, 10.00 $\mu$ F, 100.0 $\mu$ F, 1000 $\mu$ F, 10.00 mF, 100 mF
	Basic accuracy	1.0%
Frequency	<b>Range / resolution</b>	99.999 Hz, 999.99 Hz, 9.9999 kHz, 99.999 kHz, 999.99 kHz
	Basic accuracy	0.005%
Connectivity	Optional infrared connector via Fluke ir3000 FC	
General Specifications		
Maximum voltage between any terminal and earth ground	1000 V	
Battery type	6 AA alkaline batteries, IECLR6	
Battery life	100 hours minimum, 200 hours in logging mode	
Temperature	<b>Operating</b>	-20°C to 55°C
	<b>Storage</b>	-40°C to 60°C
Relative humidity	0 to 90% (0 t 37°C), 0 to 65% (37°C to 45°C), 0 to 45% (45°C to 55°C)	
Electromagnetic compatibility	EMC EN61326-1	
Vibration	Random vibration per MIL-PRF-28800F Class 2	
Shock	1 meter drop per IEC/EN 61010-1 3rd Edition	

Size (H x W x L)	22.2 x 10.2 x 6 cm (8.75 x 4.03 x 2.38 in)
Weight	870.9 g (28 oz)
Multiple on screen displays	Yes
True-RMS AC bandwidth	100 kHz
dBV/dBm	Yes
DC mV resolution	1 $\mu$ V
Megohm range	Up to 500 M $\Omega$
Conductance	50.00 nS
Continuity beeper	Yes
Battery/fuse access	Yes/Yes
Elapse time clock	Yes
Time of day clock	Yes
Min-max-avg	Yes
Peak	250 $\mu$ s
Duty cycle	0.01% to 99.99%
Pulse width	0.025 ms, 0.25 ms, 2.5 ms, 1250.0 ms
Hold	Yes
Isolated optical interface	Yes
Auto/touch hold	Yes

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Reading memory	Yes
Log to PC	Yes
Interval/event logging	Yes
Logging memory	Up to 10,000 readings
Wireless connectivity (optional)	Yes

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## Product overview: Fluke 289 True-RMS Data Logging Multimeter

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### Fluke 289 True-RMS Logging Multimeter helps you find little problems before they become big ones

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The Fluke 289 is the next generation high performance industrial logging multimeter. This Fluke Connect-compatible DMM is designed to solve complex problems in electronics, plant automation, power distribution, and electro-mechanical equipment. Let the 289 be your watchdog for systems or processes while you are off doing other jobs. It provides the ability to log data and graphically review up to 10,000 recorded events and logged readings with on-board TrendCapture. Zoom on trend provides a 14x zoom to view and analyze data—without needing a PC.

Because the 289 is Fluke Connect-compatible you can set it up with the ir3000 FC wireless connector (sold separately) to communicate with your iOS and Android smart devices through the Fluke Connect mobile app and monitor readings from a remote location. Or you can share readings with your team in an instant anytime, from anywhere with ShareLive™ video call. It can help you solve problems faster and minimize downtime.

### Other useful features:

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- Provides up to a 14x zoom to view and analyze TrendCapture data in depth
- Includes a selectable AC filter (smoothing mode) to help display a steadier reading when the input signal is changing rapidly or noisy.
- Offers adjustable recording and auto hold thresholds to specify a percentage change in the readings that begins a new event
- Features a large 50,000 count, 1/4 VGA dot matrix display with white backlight

- Stores up to 15,000 recorded events so you can save multiple logging sessions before PC download is necessary
- Provides two-terminal 50 ohm range with 1 milliohm resolution, 10 mA source current, for measuring and comparing differences in motor winding resistance or contact resistance
- Includes low pass filter for accurate voltage and frequency measurements at the same time on adjustable speed motor drives and other electrically noisy equipment.
- Provides LoZ Volts, a low impedance voltage function for eliminating ghost voltages Recommended when testing for absence or presence of live power
- Features on-board help screens for measurement functions
- Includes a real-time clock to automatically time stamp saved readings
- Offers relative mode to remove test lead resistance from low ohms or capacitance measurements
- Provides True-RMS AC voltage and current for accurate measurements on non-linear signals
- Measures up to 10 A (20 A for 30 seconds)
- Provides up to 100 mF capacitance range
- Records transients as fast as 250  $\mu$ s with peak capture
- Includes premium test leads, alligator clips, and amp jack plugs
- Offers optional magnetic hanger for easy setup and viewing while freeing your hands for other tasks
- Works with optional FlukeView forms to enable you to document, store and analyze individual readings or a series of measurements, then convert them into professional-looking documents.
- Includes a limited lifetime warranty.

## Specifications: Fluke 289

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### Specifications

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### Function

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DC volts	<b>Range / resolution</b>	50.000 mV, 500.00 mV, 5.0000 V, 50.000 V, 500.00 V, 1000.0 V
	Basic accuracy	0.025%
AC volts	<b>Range / resolution</b>	50.000 mV, 500.00 mV, 5.0000 V, 50.000 V, 500.00 V, 1000.0 V
	Basic accuracy	0.4% (True-RMS)
DC current	<b>Range / resolution</b>	500.00 $\mu$ A, 5000.0 $\mu$ A, 50.000 mA, 400.00 mA, 5.0000 A, 10.000 A
	Basic accuracy	0.05%
AC current	<b>Range / resolution</b>	500.00 $\mu$ A, 5000.0 $\mu$ A, 50.000 mA, 400.00 mA, 5.0000 A, 10.000 A
	Basic accuracy	0.6% (True-RMS)
Temperature (excluding probe)	<b>Range / resolution</b>	-200.0°C to 1350.0°C (-328.0°F to 2462.0°F)
	Basic accuracy	1.0%
Resistance	<b>Range / resolution</b>	50.000 $\Omega$ , 500.00 $\Omega$ , 5.0000 k $\Omega$ , 50.000 k $\Omega$ , 500.00 k $\Omega$ , 5.0000 M $\Omega$ , 50.00 M $\Omega$ , 500.0 M $\Omega$
	Basic accuracy	0.05%
Capacitance	<b>Range / resolution</b>	1.000 nF, 10.00 nF, 100.0 nF, 1.000 $\mu$ F, 10.00 $\mu$ F, 100.0 $\mu$ F, 1000 $\mu$ F, 10.00 mF, 100 mF
	Basic accuracy	1.0%



Frequency	<b>Range / resolution</b>	99.999 Hz, 999.99 Hz, 9.9999 kHz, 99.999 kHz, 999.99 kHz
	Basic accuracy	0.005%
Connectivity	Optional infrared connector via Fluke ir3000 FC	
General Specifications		
Maximum voltage between any terminal and earth ground	1000 V	
Battery type	6 AA alkaline batteries, IECLR6	
Battery life	100 hours minimum, 200 hours in logging mode	
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True-RMS AC bandwidth	100 kHz	

dBV/dBm	Yes
DC mV resolution	1 $\mu$ V
Megohm range	Up to 500 M $\Omega$
Conductance	50.00 nS
Continuity beeper	Yes
Battery/fuse access	Yes/Yes
Elapse time clock	Yes
Time of day clock	Yes
Min-max-avg	Yes
Duty cycle	Yes
Pulse width	Yes
Isolated optical interface	Yes
Auto/touch hold	Yes
Reading memory	Yes
Log to PC	Yes
Interval/event logging	Yes
Logging memory	Up to 15,000 readings
Wireless connectivity (optional)	Yes