

# FLUKE®

# Fluke 289

## True-rms Industrial Logging Multimeter with TrendCapture

## Technical Data

### The Best Just Got Better.

The new 289 is the next generation high performance industrial logging multimeter designed to solve complex problems in electronics, plant automation, power distribution, and electro-mechanical equipment. With the ability to log data and review it graphically on-screen, you can solve problems faster and help minimize downtime. Let the new 289 be your watchdog for systems or processes while you are off solving other problems.

### Equipped with new functionality

- **New** – TrendCapture quickly graphically displays logged data session to quickly determine whether anomalies may have occurred
- **New** – Zoom on trend provides unprecedented ability to view and analyze TrendCapture data; zoom in up to 14 times
- **New** – Selectable ac filter (Smoothing mode) helps display a steadier reading when the input signal is changing rapidly or noisy
- **New** – Adjustable recording and auto hold thresholds, specify a percentage change in the readings that begins a new event
- **New** – Large 50,000 count, 1/4 VGA dot matrix display with white backlight
- **New** – 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.
- **New** – Save multiple logging sessions before pc download is necessary



TrendCapture displays vDC logged date.

- **New** – Two terminal 50 ohm range with 1 milliohm resolution, 10 mA source current. Useful for measuring and comparing differences in motor winding resistance or contact resistance.
- **New** – Low Pass filter for accurate voltage and frequency measurements at the same time on adjustable speed motor drives and other electrically noisy equipment
- **New** – LoZ Volts. Low impedance voltage function for eliminating ghost voltages. Also recommended when testing for absence or presence of live power.
- **New** – **i** button. On board help screens for measurement functions. Unsure about a function—go to that function and press the “i” button.
- Real time clock for automatic time stamping of saved readings

- Relative mode to remove test lead resistance from low ohms or capacitance measurements
- True-rms ac voltage and current for accurate measurements on non linear signals
- Measure up to 10 A (20 A for 30 seconds)
- 100 mF capacitance range
- Peak capture to record transients as fast as 250  $\mu$ s
- Optional magnetic hanger for easy setup and viewing while freeing your hands for other tasks
- Optically isolated communication port for transferring data to pc (usb cable and software optional)
- Limited lifetime warranty



## Specifications

Function	Range and Resolution	Basic Accuracy
DC volts AC volts	50.000 mV, 500.00 mV, 5.0000 V, 50.000 V, 500.00 V, 1000.0 V	0.025 % 0.4 % (true-rms)
DC current AC current	500.00 µA, 5000.0 µA, 50.000 mA, 400.00 mA, 5.0000 A, 10.000 A	0.15 % 0.7 % (true-rms)
Temperature (excluding probe)	-200.0 °C to 1350.0 °C (-328.0 °F to 2462.0 °F)	1.0 %
Resistance	50.000 Ω, 500.00 Ω, 5.0000 kΩ, 50.000 kΩ, 500.00 kΩ, 5.0000 MΩ, 50.00 MΩ, 500.0 MΩ	0.05 %
Capacitance	1.000 nF, 10.00 nF, 100.0 nF, 1.000 µF, 10.00 µF, 100.0 µF, 1000 µF, 10.00 mF, 100 mF	1.0 %
Frequency	99.999 Hz, 999.99 Hz, 9.9999 kHz, 99.999 kHz, 999.99 kHz	.005 %

Additional Functions/Features	Fluke 289
Multiple on screen displays	Yes
True-rms ac bandwidth	100 kHz
dBV/dBm	Yes
DC mV resolution	1 µV
Megohm range	up to 500 MΩ
Conductance	50.00 nS
Continuity beeper	Yes
Battery/fuse access	Battery/fuse
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

### General specifications

**Maximum voltage between any terminal and earth ground:**  
1000 V

**Battery type:** 6 AA alkaline batteries, NEDA 15A IEC LR6

**Battery life:** 100 hours minimum, 200 hours in logging mode

**Temperature:**  
Operating: -20 °C to 55 °C  
Storage: -40 °C to 60 °C

**Relative humidity:** 0 to 90 % (0 to 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 2nd Edition

**Size (HxWxD):** 22.2 cm x 10.2 cm x 6 cm (8.75 in x 4.03 in x 2.38 in)

**Weight:** 870.9 g (28 oz)

### Ordering information

289 True-rms Industrial Logging Multimeter with TrendCapture

#### Optional accessories

FVF-SC2 FlukeView® Forms Software with Cable  
TLK289 Industrial Test Lead Set  
i400 AC Current Clamp  
i410 AC/DC Current Clamp  
80BK Integrated DMM Temperature Probe  
TPAK Magnetic Hanging Kit  
C280 Soft Case

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