

# FLUKE®

## New Fluke 289

### True-rms Industrial Logging Multimeter with TrendCapture

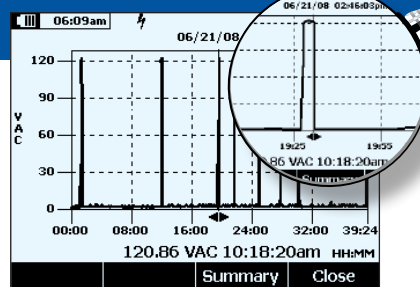
## Technical Data

### 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 untended 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
- **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



TrendCapture displays vDC logged date.



## Specifications

| Function                         | Range and Resolution                                                                     | Basic Accuracy              |
|----------------------------------|------------------------------------------------------------------------------------------|-----------------------------|
| DC volts<br>AC volts             | 50.000 mV, 500.00 mV, 5.0000 V, 50.000 V,<br>500.00 V, 1000.0 V                          | 0.025 %<br>0.4 % (true-rms) |
| DC current<br>AC current         | 500.00 µA, 5000.0 µA, 50.000 mA, 400.00 mA,<br>5.0000 A, 10.000 A                        | 0.15 %<br>0.7 % (true-rms)  |
| Temperature<br>(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,<br>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,<br>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,<br>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 (HxWxL):** 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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