

# FLUKE®

# New Fluke 289

## True-rms Industrial Logging Multimeter with TrendCapture

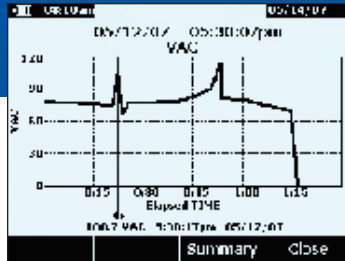
## Technical Data

### New diagnostic functionality for maximizing productivity in the plant.

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** – 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 10,000 readings over time.
- **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 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
- Withstands hazardous 8,000 volt spikes caused by load switching and faults on industrial circuits and complies with second edition IEC and ANSI electrical safety standards.
- Optional magnetic hanger for easy setup and viewing while freeing your hands for other tasks



TrendCapture displays VAC logged data.



- 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<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, 100.0 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 10,000 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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