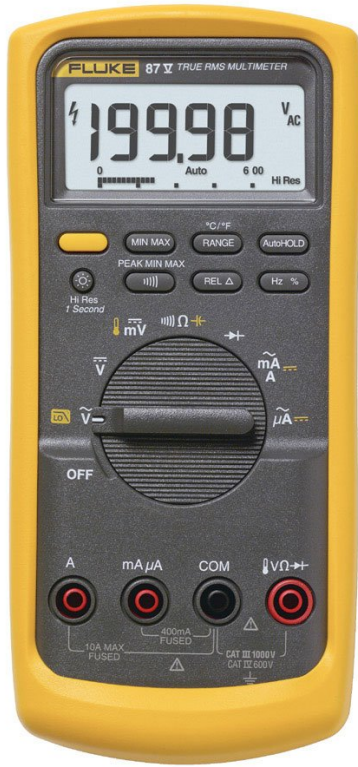
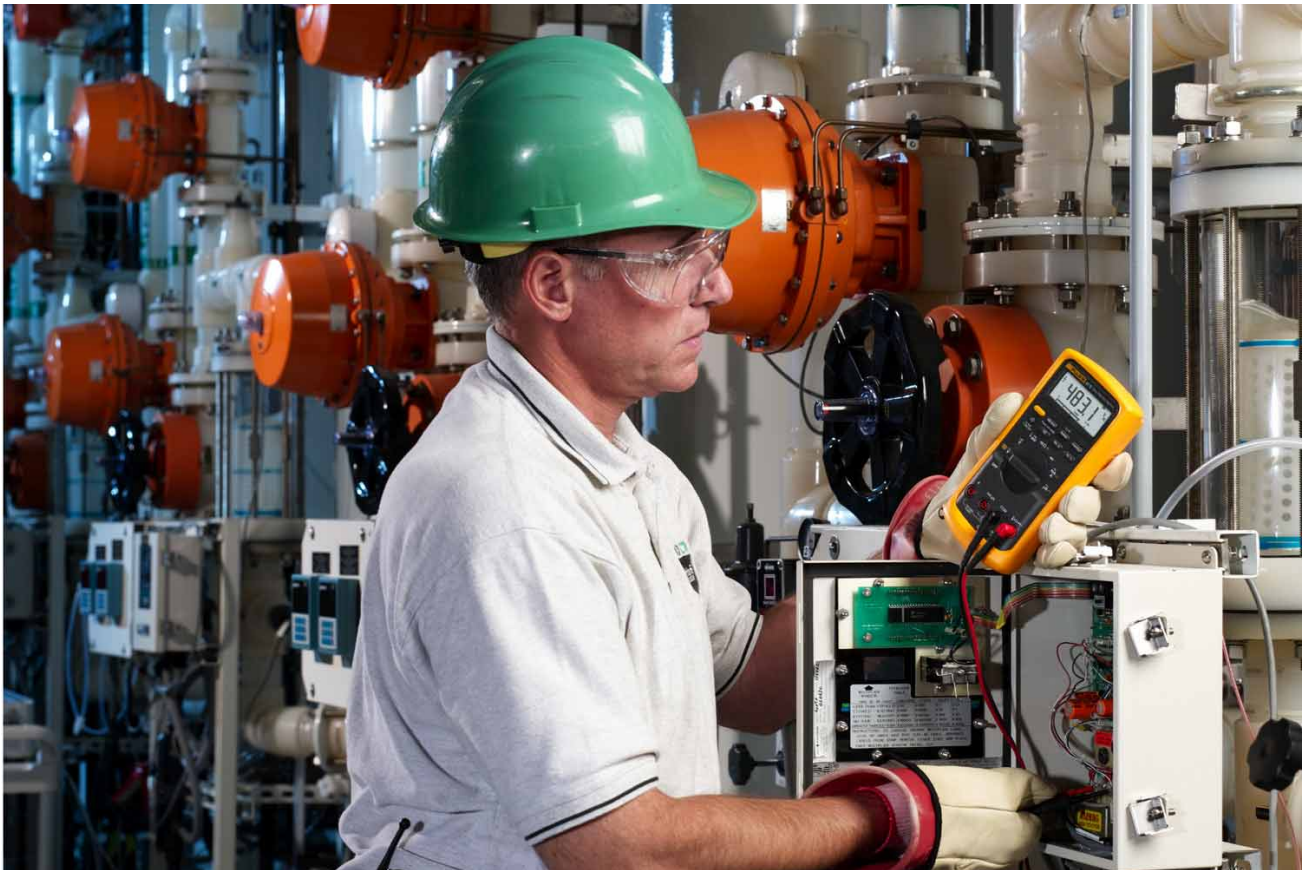




TECHNICAL DATA

Fluke 87V Industrial Multimeter







Key features

- Identify complex signal problems fast
- Supports accurate measurements on VFDs using a low-pass filter
- Captures intermittents as fast as 250 μS with Peak Capture

Product overview: Fluke 87V Industrial Multimeter

The Fluke 87V Industrial Multimeter provides the resolution and accuracy to efficiently troubleshoot motor drives, plant automation, power distribution, and electromechanical equipment - even in loud, high-energy, and high-altitude locations. The 87V is designed so you can work more efficiently.

- Easy-access door for fast battery changes without breaking the calibration seal
- Analog bar graph for fast changing or unstable signals
- Large digit display with bright, two-level backlight for easier reading in low light
- Touch Hold keeps readings on display even after removing probes

The 87V lets you identify complex electrical problems fast. It supports accurate measurements on VFDs using a low-pass filter. The meter also captures intermittents as fast as 250 μS using Peak Capture. High-frequency, high-energy noise generated by large drive systems is blocked from your measurements with specially designed shielding.

Built to highest safety standards

All the inputs in the 87V are updated to the third edition of the EN 61010-1 to CAT III 1000 V and CAT IV 600 V. The meter is designed to withstand spikes of more than 8000 V. You also benefit from an audible Input Alert warning if the test leads are placed in the incorrect input jacks for the measurement being made.

Removable holster with built in test lead and probe storage for convenience

The 87V has a removeable holster that also holds a test probe during testing for easier viewing. Relative mode lets you remove test lead resistance, improving accuracy of low-resistance measurements. To make your life even easier, the 87V fits into an optional magnetic hanger for easy set-up and viewing while freeing your hands for other tasks.

Additional measurement features

The Fluke 87V is designed and built in the U.S. and comes with a lifetime warranty.

For a complete comparison of specifications, please visit our [selection guide](#) for digital multimeters.



| | Fluke 87V Industrial Multimeter | Fluke 87V MAX True-rms Digital Multimeter | Fluke 289 True-RMS Data Logging Multimeter | Fluke 179 True-RMS Digital Multimeter | Fluke 1587 FC Insulation Multimeter |
|--------------------------|---------------------------------|---|--|---------------------------------------|-------------------------------------|
| CAT rating | CAT III 1000 V CAT IV 600 V | CAT III 1000 V CAT IV 600 V | CAT III 1000 V CAT IV 600 V | CAT III 1000 V CAT IV 600 V | CAT III 1000 V CAT IV 600 V |
| True-rms readings | ∅ | ∅ | ∅ | ∅ | ∅ |
| Voltage AC/DC | 1000 V | 1000 V | 1000 V | 1000 V | 1000 V |
| Current AC/DC | 10 A | 10 A | 10 A | 10 A | 400 mA |
| Resistance | 50 MΩ | 50 MΩ | 500 MΩ | 50 MΩ | 50 MΩ |
| Capacitance | 9,999 μF | 9,999 μF | 100,000 μF | 9,999 μF | 9,999 μF |
| Temperature | -200 °C to 1090 °C | -200 °C to 1090 °C | -200 °C to 1350 °C | -40 °C to 400 °C | -40 °C to 537 °C |

Frequency, continuity/diode test, motor drive (VFD) measurement capabilities
Additional measurement capabilities
 Frequency, motor drive (VFD) measurement, bar graph, relative reference
IP rating IP 30
Battery life 400 hours
Drop test 3 meters
Backlit keypad No

Conductance, continuity/diode test, duty cycle, frequency, microamps, motor drive (VFD) measurement, pulse width, relative reference
IP 67
800 hours
4 meters
 Yes

Conductance (50ns), duty cycle, frequency, continuity/diode test, low input impedance, microamps, pulse width
IP 42
200 hours
 -
 No

Continuity/diode test, frequency, microamps
 -
200 hours
 -
 No

Frequency, P/DAR, timed ratio tests, continuity/diode test, motor drive (VFD) measurement, microamps, relative reference
 -
1000 hours
 -
 No

Specifications: Fluke 87V Industrial Multimeter

| Specifications | | |
|-------------------------|---|---|
| Voltage DC | Maximum voltage | 1000 V |
| | Accuracy | u00b1(0.05% + 1) |
| | Maximum resolution | 10 u00b5V |
| Voltage AC | Maximum voltage | 1000 V |
| | Accuracy | u00b1(0.7% + 2) True RMS |
| | AC bandwidth | 20 kHz with low pass filter; 3 dB @ 1 kHz |
| | Maximum resolution | 0.1 mV |
| Current DC | Maximum amps | 10 A (20 A for 30 seconds maximum) |
| | Amps accuracy | u00b1(0.2% + 2) |
| | Maximum resolution | 0.01 u00b5A |
| Current AC | Maximum amps | 10 A (20 A for 30 seconds maximum) |
| | Amps accuracy | u00b1(1.0% + 2) True RMS |
| | Maximum resolution | 0.1 u00b5A |
| Resistance | Maximum resistance | 50 Mu03a9 |
| | Accuracy | u00b1(0.2% + 1) |
| | Maximum resolution | 0.1 u03a9 |
| Capacitance | Maximum capacitance | 9,999 u00b5F |
| | accuracy | u00b1(1% + 2) |
| | Maximum resolution | 0.01 nF |
| Frequency | Maximum frequency | 200 kHz |
| | Accuracy | u00b1(0.005% + 1) |
| | Maximum resolution | 0.01 Hz |
| Duty cycle | Maximum duty cycle | 99.9% |
| | Accuracy | u00b1(0.2% per kHz + 0.1%) |
| | Maximum resolution | 0.1% |
| Temperature measurement | u2013200.0 u00b0C u2013 1090 u00b0C ttu2013328.0 u00b0F u2013 1994.0 u00b0F ttexcluding probe | |
| 80 BK temperature probe | u201340.0 u00b0C u2013 260 u00b0C ttu201340.0 u00b0F u2013 500 u00b0F, 2.2 u00b0C or 2% whichever is greater | |

| | | |
|---------------------------------------|---|---|
| Conductance | Maximum conductance | 60.00 nS |
| | Accuracy | u00b1(1.0% + 10) |
| | Maximum resolution | 0.01 nS |
| Diode | Range | 3 V |
| | Resolution | 1 mV |
| | Accuracy | u00b1(2% + 1) |
| Duty cycle range | Accuracy | Within u00b1(0.2% per kHz + 0.1%) |
| Environmental Specifications | | |
| Operating temperature | u201320 u00b0C to + 55 u00b0C | |
| Storage temperature | u201340 u00b0C to + 60 u00b0C | |
| Humidity (without condensation) | 0% u2013 90% (0 u00b0C u2013 35 u00b0C) tt0% u2013 70% (35 u00b0C u2013 55 u00b0C) | |
| Operating Altitude | 2000 m | |
| Safety Specifications | | |
| Overvoltage category | EN 61010u20131 to 1000 V CAT III, 600V CAT IV | |
| Agency approvals | CE, CSA, RCM | |
| Mechanical and General Specifications | | |
| Size | 201 x 98 x 52 mm (with holster) | |
| Weight | 355 g tt624 g u2013 with holster | |
| Display | Digital | 6000 counts updates 4/sec. tt19,999 counts in highu2013resolution mode |
| | Analog | 32 segments, updates 40/sec |
| | Frequency | 19,999 counts, updates 3/sec at > 10 Hz |
| Warranty | Lifetime | |
| Baery Life | Alkaline | ~400 hours typical, without backlight |
| Shock | 1 Meter drop per IEC 61010u20131:2001 | |
| Vibration | Per MILu2013PRFu201328800 for a Class 2 instrument | |

Ordering information



Fluke 87V

Fluke 87V Industrial Multimeter

Includes:

- TL75 Test Leads (TL175 EUR)
- AC175 Alligator Clips
- Holster
- 9V Battery (Installed)
- 80BK Temperature Probe

Fluke 87V CAL

Fluke 87V Industrial Multimeter, with a traceable certificate of calibration with data from Fluke

Includes:

- TL75 Test Leads (TL175 EUR)
- AC175 Alligator Clips
- Holster
- 9V Battery (Installed)
- 80BK Temperature Probe
- A traceable certificate of calibration with data from Fluke

Optional accessories

Fluke TPAK ToolPak™ Magnetic Meter Hanger

Fluke TLK-225 SureGrip™ Master Accessory Set

Description

Powerful magnetic strap for safe, hands free measurements.

Includes all the SureGrip™ leads and probes in a handy six-pocket, roll-up pouch, along with TL224 test leads.

Optional accessories

Fluke CXT80 Extreme Case

Description

Unbreakable, watertight, airtight, dustproof, chemical resistant and corrosion proof.

Fluke Pack30 Professional Tool Backpack

The Fluke Pack30 tool backpack gives you a comfortable hands-free experience vs. traditional tool belts that put all the weight on your lower back.



Fluke. *Keeping your world up and running.®*

Fluke Corporation
PO Box 9090, Everett, WA 98206 U.S.A.

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