

## TECHNICAL DATA

# Fluke 83V Average Responding Industrial Multimeter



## Key features

### New features for maximum productivity

- Optional magnetic hanger for easy set-up and viewing while freeing your hands for other tasks
- Large digit display with bright, two-level backlight makes the 83V significantly easier to read than older models
- 6000 counts, 3-3/4 digits
- Measure up to 1000 V AC and DC
- Measure up to 10 A, 20 A for up to 30 seconds
- Frequency to 200 kHz and % duty cycle
- Resistance, continuity and diode test
- 10,000  $\mu$ F capacitance range for components and motor caps
- Min/Max-Average recording with Min/Max Alert to capture variations automatically
- Relative mode to remove test lead interference from low ohms measurements
- Auto and manual ranging for maximum flexibility
- Touch Hold to capture stable readings avoiding noisy signals
- Large display digits and two-level bright white backlight for increased visibility
- Analog bargraph for fast changing or unstable signals
- Input Alert provides audible warning against wrong use of input jacks

- Improved selectable sleep mode for long battery life
- Access door for fast battery changes without breaking the calibration seal
- "Classic" design with new removable holster with built in test lead and probe storage
- Lifetime warranty

### Electrical safety

All inputs are updated to the 3rd edition of ANSI/ISA S82.01 and EN61010-1 CAT IV 600 V and CAT III, 1000 V. They can withstand impulses in excess of 8.000 V and reduce risks related to surges and spikes.

- Measure AC current with an optional current clamp accessory

## Product overview: Fluke 83V Average Responding Industrial Multimeter

### The Best Techs Use the Best Tools

Industrial electricians around the world trust the Fluke 83V Industrial Multimeter from the control room to the plant floor. With its accuracy and troubleshooting capabilities, the Fluke 83V Industrial Multimeter works when you need it, even in loud, high energy, and high altitude locations.

### Identify Complex Signal Problems Fast

When productivity is on the line and you need to solve problems fast, the Fluke 83V delivers the accuracy and advanced troubleshooting capabilities you need.

Min/Max allows capture of signal changes

- 6000 count display resolution
- CAT III 1000 V, CAT IV 600 V safety rated
- Designed and built in the U.S.A.
- The most trusted industrial multimeter in the business
- Lifetime warranty

### The Fluke 83V – Just One of Fluke's Trusted Tools

Fluke builds the most trusted tools in the world and that means more than just the Fluke 83V. If you work with HVAC equipment, need a small meter for small spaces or work in the electrical installer's and repairman's world, check out the full family of Fluke digital multimeters.

## Specifications: Fluke 83V Average Responding Industrial Multimeter

### Specifications

|                                     |   |   |
|-------------------------------------|---|---|
| Voltage DC                          | <b>Maximum voltage</b>                          | 1000 V                                      |
|                                     | Accuracy  | $\pm(0.1\% + 1)$                            |
|                                     | Maximum resolution                              | 100 $\mu$ V                                 |
| Voltage AC                          | <b>Maximum voltage</b>                          | 1000 V                                      |
|                                     | Accuracy  | $\pm(0.5\% + 2)$                            |
|                                     | Maximum resolution                              | 0.1 mV                                      |
| Current DC                          | <b>Maximum amps</b>                             | 10 A (20 A for 30 seconds maximum)          |
|                                     | Amps accuracy                                   | $\pm(0.4\% + 2)$                            |
|                                     | Maximum resolution                              | 0.01 mA                                     |
| Current AC                          | <b>Maximum amps</b>                             | 10 A (20 A for 30 seconds maximum)          |
|                                     | Amps accuracy                                   | $\pm(1.2\% + 2)$                            |
|                                     | Maximum resolution                              | 0.1 $\mu$ A                                 |
| Resistance                          | <b>Maximum resistance</b>                       | 50 M $\Omega$                               |
|                                     | Accuracy  | $\pm(0.4\% + 1)$                            |
|                                     | Maximum resolution                              | 0.1 $\Omega$                                |
| Capacitance                         | <b>Maximum capacitance</b>                      | 9,999 $\mu$ F                               |
|                                     | Accuracy  | $\pm(1\% + 2)$                              |
|                                     | Maximum resolution                              | 0.01 nF                                     |
| Frequency                           | <b>Maximum frequency</b>                        | 200 kHz                                     |
|                                     | Accuracy  | $\pm(0.005\% + 1)$                          |
|                                     | Maximum resolution                              | 0.01 Hz                                     |
| Duty cycle                          | <b>Maximum duty cycle</b>                       | 99.9%                                       |
|                                     | Accuracy  | $\pm(0.2\% \text{ per kHz} + 0.1\%)$        |
|                                     | Maximum resolution                              | 0.1%  |
| Conductance                         | <b>Maximum conductance</b>                      | 60.00 nS                                    |
|                                     | Accuracy  | $\pm(1.0\% + 10)$                           |
|                                     | Maximum resolution                              | 0.01 nS                                     |
| Diode                               | <b>Range</b>                                    | 3 V   |
|                                     | Resolution                                      | 1 mV  |
|                                     | Accuracy  | $\pm(2\% + 1)$                              |
| Duty cycle range                    | <b>Accuracy</b>                                 | within $\pm(0.2\% \text{ per kHz} + 0.1\%)$ |
| <b>Environmental Specifications</b> |   |   |
| Operating temperature               | -20°C to +55°C                                  |   |
| Storage temperature                 | -40°C to +60°C                                  |   |
| Humidity (without condensation)     | 0% – 90% (0°C – 35°C)<br>0% – 70% (35°C – 55°C) |   |

|                                       |   |   |
|---------------------------------------|---|---|
| Operating altitude                    | 2000 m  |   |
| Safety Specifications                 |   |   |
| Overvoltage category                  | EN 61010–1 to 1000 V CAT III, 600V CAT IV     |   |
| Agency approvals                      | CSA, TÜV                                      |   |
| Mechanical and General Specifications |   |   |
| Display                               | Digital                                       | 6000 counts updates 4/sec               |
|                                       | Analog  | 32 segments, updates 40/sec             |
|                                       | Frequency                                     | 19,999 counts, updates 3/sec at > 10 Hz |
| Size                                  | 201 x 98 x 52 mm (with holster)               |   |
| Weight                                | 355 g   |   |
| Weigh with holster and flex-stand     | 624 g   |   |
| Warranty                              | Lifetime                                      |   |
| Baery life                            | Alkaline~400 hours typical, without backlight |   |
| Shock                                 | 1 Meter drop per IEC 61010–1:2001             |   |
| Vibration                             | Per MIL–PRF–28800 for a Class 2 instrument    |   |

## Ordering information



### Fluke 83V

Fluke 83V Average Responding Industrial Multimeter

Includes:

- TL75 Test Leads
- AC175 Alligator Clips
- Holster
- 9V Battery (Installed)

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

**Fluke Corporation**

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