

80 Series V Digital Multimeters

FLUKE®



Fluke 87V



Fluke 83V



Fluke 87V Ex



On all inputs



not 87V Ex

Included Accessories

TL75 test leads, AC72 alligator clips, yellow holster (H80M excl. TPAK), 80BK temperature probe (87V only), 9 V battery (installed), CD-ROM (user's manual and technical notes) and operator's guide.

Ordering Information

Fluke 83V Multimeter
 Fluke 87V True RMS Multimeter
 Fluke 87V Ex Intrinsic safe
 True RMS multimeter
 Fluke 87V/E2 Industrial Electrician Combo Kit
 See page 13

Performance and accuracy for maximum industrial productivity

The Fluke 80 Series V have improved measurement functions, troubleshooting features, resolution and accuracy to solve more problems on motor drives, in plant automation, power distribution, and electro-mechanical equipment.

The Fluke 87V has a unique function for accurate voltage and frequency measurements on adjustable speed motor drives and other electrically noisy equipment. A built-in thermometer conveniently allows you to take temperature readings without having to carry a separate instrument. For 87V Ex see also page 84 and 85.

Features

| | 83V | 87V / 87V Ex |
|---|-------|--------------|
| True-RMS voltage and current for accurate measurements on non linear signals | | ● |
| Bandwidth (voltage/current) | 5 kHz | 20 kHz |
| Digital display counts (default/selectable) | 6000 | 20000 / 6000 |
| Selectable filter for accurate voltage and frequency measurements on motor drives | | ● |
| Large display with analog bargraph and 2 level bright white backlight | ● | ● |
| Auto and manual ranging for maximum flexibility | ● | ● |
| Built-in thermometer lets you carry one less tool | | ● |
| Peak capture to record transients as fast as 250 μs | | ● |
| Relative mode to remove test lead resistance from low ohms measurements | ● | ● |
| Min-Max-Average recording with Min/Max Alert to capture variations automatically | ● | ● |
| AutoHOLD* to capture stable readings avoiding noisy signals | ● | ● |
| Audible continuity, diode test and duty cycle | ● | ● |
| Input Alert | ● | ● |
| *Classic* design with new removable holster with built in test lead and probe storage | ● | ● |
| Improved selectable sleep mode for long battery life | ● | ● |
| Easy battery and fuse exchange without opening the complete case | ● | ● |
| ATEX safety rating (Ex) II 2 G Eex ia IIC T4 | | 87V Ex |

Specifications

(Check the Fluke web for detailed specifications)

| Functions | Maximum Range | 83V | | 87V/87V Ex* | |
|------------------------|-----------------|-----------------|-------------|-----------------|--------------|
| | | Max. resolution | Accuracy | Max. resolution | Accuracy |
| Voltage DC | 1000 V | 0.1 mV | ±(0.1+1%) | 10 μV | ±(0.05%+1) |
| Voltage AC | 1000 V | 0.1 mV | ±(0.5%+2) | 10 μV | ±(0.7%+2) |
| Current DC | 10 A ** | 0.1 μA | ±(0.4%+2) | 0.01 μA | ±(0.2%+2) |
| Current AC | 10 A ** | 0.1 μA | ±(1.2%+2) | 0.01 μA | ±(1.0%+2) |
| Resistance | 50 MΩ | 0.1 Ω | ±(0.4%+1) | 0.01 Ω | ±(0.2%+1) |
| Conductance | 60 nS | 0.01 nS | ±(1.0%+10) | 0.001 nS | ±(1.0%+10) |
| Capacitance | 9999 μF | 0.01 nF | ±(1.0%+2) | 0.01 nF | ±(1.0%+2) |
| Frequency | > 200 kHz | 0.01 Hz | ±(0.005%+1) | 0.01 Hz | ±(0.005%+1) |
| Temperature | -200 to 1090 °C | - | - | 0.1 °C | 1.0% |
| 80BK temperature probe | - 40 to 260 °C | - | - | - | 2.2 °C or 2% |

Accuracies are best accuracies for each function.

* 87V accuracy is stated for 6,000 counts and resolution for 20,000 counts

** 20 A up to 30 seconds

Battery Life: Over 400 hours typical (alkaline).

Size (HxWxD):
200 mm x 95 mm x 48 mm

Weight: 0.6 kg

83V/87V: Lifetime Warranty

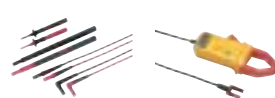
87V Ex: One Year Warranty

Recommended Accessories

(Not for hazardous zones)



C25
See page 94



TL238
See page 88



i410/i1010
See page 91



TPAK
See page 97



L215
See page 89