

Fluke 77IV Digital Multimeter

Technical Data

Versatile meters for field service or bench repair

The NEW Fluke 77-IV digital multimeter has the features needed to repair most electrical and electronic problems. This meter is simple to use and has significant improvements over Fluke's original 70 Series with more measurement functions, conformance to the latest safety standards, and a much larger display that's easier to view.

It measures:

- Wide 1000 V measurement range
- Average responding ac measurements
- 0.3 % accuracy
- 20 A for 30 seconds
- Frequency and capacitance
- Resistance and continuity

General specifications

Accuracy is specified for 1 year after calibration, at operating temperatures of 18 °C to 28 °C, with relative humidity at 0 % to 90 %. Accuracy specifications take the form of \pm [% of Reading] + [Counts].

| | |
|---|--|
| Maximum voltage between any terminal and earth ground | 1000 V |
| Surge protection | 8 kV peak per IEC 61010 |
| Ω Fuse for mA input | 440 mA, 1000 V FAST Fuse |
| Ω Fuse for A input | 11 A, 1000 V FAST Fuse |
| Display | Digital: 6,000 counts, updates 4/sec |
| Bar graph | 33 segments, updates 32/sec |
| Frequency | 10,000 counts |
| Capacitance | 1,000 counts |
| Operating altitude | 2,000 meters |
| Storage altitude | 12,000 meters |
| Operating temperature | -10 °C to + 50 °C |
| Storage temperature | -40 °C to + 60 °C |
| Temperature coefficient | 0.1 X (specified accuracy/°C (< 18 °C or > 28 °C)) |
| Electromagnetic compatibility (EN 61326-1:1997) | In an RF field of 3 V/M, accuracy = specified accuracy except in temperature: specified accuracy \pm 5 °C (9 °F) |
| Relative humidity (maximum non-condensing) | 90 % to 35 °C; 75 % to 40 °C; 45 % to 50 °C |
| Battery life | 400 hours typical (Alkaline) |
| Size (H x W x L) | 4.3 cm x 9 cm x 18.5 cm |
| Weight | 420 g |
| Safety compliance | ANSI/ISA S82.02.01, CSA C22.2-1010.1, IEC 61010 to 1000 V Measurement Category III, 600 V Measurement Category IV |
| Certifications | CSA, TÜV (EN61010), UL, II, (N10140), VDE |



| Function | Range | Resolution | Accuracy ± ([% of reading] + [counts]) |
|--|---|------------|--|
| AC volts (average responding) | 6.000 V | 0.001 V | 2.0 % + 2 (45 Hz to 1 kHz) |
| | 60.00 V | 0.01 V | |
| | 600.0 V | 0.1 V | |
| | 1000 V | 1 V | |
| DC mV | 600.0 mV | 0.1 mV | 0.3 % + 1 |
| DC volts | 6.000 V | 0.001 V | 0.3 % + 1 |
| | 60.00 V | 0.01 V | |
| | 600.0 V | 0.1 V | |
| | 1000 V | 1 V | |
| Continuity | 600 Ω | 1 Ω | Meter beeps at < 25 Ω, beeper turns off at > 250 Ω; detects opens or shorts of 250 μs or longer. |
| Ohms | 600.0 Ω | 0.1 Ω | 0.5 % + 2 |
| | 6.000 kΩ | 0.001 kΩ | |
| | 60.00 kΩ | 0.01 kΩ | |
| | 600.0 kΩ | 0.1 kΩ | 0.5 % + 1 |
| | 6.000 MΩ | 0.001 MΩ | |
| | 50.00 MΩ | 0.01 MΩ | |
| Diode test | 2.400 V | 0.001 V | 1 % + 2 |
| Capacitance | 1000 nF | 1 nF | 1.2 % + 2 |
| | 10.00 μF | 0.01 μF | |
| | 100.0 μF | 0.1 μF | 10 % typical |
| | 9999 μF ¹ | 1 μF | |
| AC amps (average responding) | 60.00 mA | 0.01 mA | 2.5 % + 2 (45 Hz to 1 kHz) |
| | 400.0 mA ³ | 0.1 mA | |
| | 6.000 A | 0.001 A | |
| | 10.00 A ⁴ | 0.01 A | |
| DC amps³ | 60.00 mA | 0.01 mA | 1.5 % + 2 |
| | 400.0 mA ⁴ | 0.1 mA | |
| | 6.000 A | 0.001 A | |
| | 10.00 A ⁵ | 0.01 A | |
| Hz^{2,5} (ac voltage input) | 99.99 Hz | 0.01 Hz | 0.1 % + 1 |
| | 999.9 Hz | 0.1 Hz | |
| | 9.999 kHz | 0.001 kHz | |
| | 99.99 kHz | 0.01 kHz | |
| MIN MAX AVG | For dc functions, accuracy is the specified accuracy of the measurement function (12 counts for changes longer than 275 ms in duration). For ac functions, accuracy is the specified accuracy of the measurement function (40 counts for changes longer than 1.2 s in duration). | | |

- 1 In the 9999 (F range for measurements to 1000 (F, the measurement accuracy is 1.2 % + 2.
- 2 Amps input burden voltage (typical): 400 mA input 2 mV/mA, 10 A input 37 mV/A.
- 3 400.0 mA accuracy specified up to 600 mA overload.
- 4 >10 A unspecified.
- 5 Frequency is specified from 2 Hz to 99.99 kHz. Below 2 Hz, the display shows zero Hz.

Ordering information

Fluke-77-4 Digital Multimeter
Included
 TL75 Test leads, user's manual and 9 V battery (installed).



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 Printed in U.S.A. 12/2006 2805740 D-EN-N Rev A