FLUKE®

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 ±([% 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 ± 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, ∏, (N10140), VDE

1000 V CAT III
600 V CAT IV

Made in the U.S.A.

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	0.1Ω	0.5 % + 2
	6.000 kΩ	0.001 kΩ	0.5 % + 1
	60.00 kΩ	0.01 kΩ	
	600.0 kΩ	0.1 kΩ	
	6.000 MΩ	0.001 MΩ	
	50.00 MΩ	0.01 MΩ	2.0 % + 2
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	
	9999 µF[1]	1 µF	10 % typical
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 amps[3]	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).