Fluke 116 HVAC Multimeter with Temperature and Microamps




Features

- Built-in thermometer for HVAC applications
- Microamps to test flame sensors
- Low input impedance: helps prevent false readings due to ghost voltage
- Large white LED backlight to work in poorly lit areas
- Resistance, continuity, frequency and capacitance
- Min/Max/Average with elapsed time to record signal fluctuations
- Compact ergonomic design for one-handed operation
- Compatible with optional magnetic hanger (ToolPak™)
- CAT III 600 V safety rated

Specifications

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Maximum voltage between any terminal and earth ground	600 V
Surge protection	6 kV peak per IEC 61010-1 600 V CAT III, Pollution Degree 2
Display	**Digital:** 6,000 counts, updates 4 per second
Bar graph	33 segments, updates 32 per second
Operating Temperature	-10 °C to + 50 °C
Storage Temperature	-40 °C to + 60 °C
Battery type	9 volt Alkaline, NEDA 1604A/ IEC 6LR61
Battery Life	400 hours typical, without backlight

Accuracy Specifications	
DC millivolts	**Range:** 600.0 mV **Resolution:** 0.1 mV **Accuracy:** ± ([% of reading] + [counts]): 0.5% + 2
DC volts	**Range/Resolution:** 6.000 V / 0.001 V **Range/Resolution:** 60.00 V / 0.01 V **Range/Resolution:** 600.00 V / 0.1 V **Accuracy:** ± ([% of reading] + [counts]): 0.5% + 2
Auto volts	**Range:** 600.0 V **Resolution:** 0.1 V **Accuracy:** 2.0 % + 3 (dc, 45 Hz to 500 Hz) 4.0 % + 3 (500 Hz to 1 kHz)
AC millivolts[1] true-rms	**Range:** 600.0 mV **Resolution:** 0.1 mV **Accuracy:** 1.0 % + 3 (dc, 45 Hz to 500 Hz) 2.0 % + 3 (500 Hz to 1 kHz)
AC volts[1] true-rms	**Range/Resolution:** 6.000 V / 0.001 V **Range/Resolution:** 60.00 V / 0.01 V **Range/Resolution:** 600.0 V / 0.1 V **Accuracy:** 1.0 % + 3 (dc, 45 Hz to 500 Hz) 2.0 % + 3 (500 Hz to 1 kHz)
Continuity	**Range:** 600 Ω **Resolution:** 1 Ω **Accuracy:** Beeper on < 20 Ω, off > 250 Ω; detects opens or shorts of 500 µs or longer.

Ohms	**Range/Resolution:** 600.0 Ω / 0.1 Ω **Range/Resolution:** 6.000 kΩ / 0.001 kΩ **Range/Resolution:** 60.00 kΩ / 0.01 kΩ **Range/Resolution:** 600.0 kΩ / 0.1 kΩ **Range/Resolution:** 6.000 MΩ / 0.001 MΩ **Accuracy:** 0.9 % + 1 **Range/Resolution:** 40.00 MΩ / 0.01 MΩ **Accuracy:** 1.5 % + 2
Diode Test	**Range/Resolution:** 2.000 V / 0.001 V **Accuracy:** 0.9% + 2
Capacitance	**Range/Resolution:** 1000 nF / 1 nF **Range/Resolution:** 10.00 µF / 0.01 µF **Range/Resolution:** 100.0 µF / 0.1 µF **Range/Resolution:** 9999 µF / 1 µF **Range/Resolution:** 100 µF to 1000 µF **Accuracy:** 1.9% + 2 **Range/Resolution:** > 1000 µF **Accuracy:** 5% + 20%
LoZ capacitance	**Range:** 1 nF to 500 µF **Accuracy:** 10% + 2 typical
Temperature[2] (Type-K thermocouple)	**Range/Resolution:** -40 °C to 400 °C / 0.1 °C **Accuracy:** 1% + 10[2] **Range/Resolution:** -40 °F to 752 °F / 0.2 °F **Accuracy:** 1% + 18[2]
AC µamps true-rms (45 Hz to 500 Hz)	**Range/Resolution:** 600.0 µA / 0.1 µA **Accuracy:** 1.0% + 2
DC µamps	**Range/Resolution:** 600.0 µA / 0.1 µA **Accuracy:** 1.0% + 2
Hz (V or A input)[2]	**Range/Resolution:** 99.99 Hz / 0.01 Hz **Range/Resolution:** 999.99 Hz / 0.1 Hz **Range/Resolution:** 9.999 Hz / 0.001 Hz **Range/Resolution:** 50.00 Hz / 0.01 Hz **Accuracy:** 0.1% + 2

Notes:
1) All ac voltage ranges except Auto-V/LoZ are specified from 1 % to 100 % of range. Auto-V/LoZ is specified from 0.0 V.
2) Temperature uncertainty (accuracy) does not include the error of the thermocouple probe.
3) Frequency is ac coupled, 5 Hz to 50 kHz for ac voltage. Frequency is dc coupled, 45 Hz to 5 kHz for ac current.
4) Temperature Range/Resolution: -40 °F to 752 °F / 0.2 °F

Mechanical & General Specifications	
Size	167 x 84 x 46 mm (6.57" x 3.31" x 1.82")
Weight	550 g
Warranty	3 years