TECHNICAL DATA

Fluke 17B+ Digital Multimeter

Key features

- 600 V Cat III safety rating
- AC/DC voltage measurement up to 1000V
- AC/DC current measurement up to 10A
- Measures voltage, resistance, continuity, capacitance
- Frequency and temperature measurement
- Large easy-to-read display with bright white backlight

Product overview: Fluke 17B+ Digital Multimeter

Fluke quality is always within your reach

Experience the precision, durability, and safety of a professional-grade test tool with the Fluke 17B+ Digital Multimeter. With the Fluke 17B+, you'll have a rugged, portable tool that's designed to be used with one hand, even while wearing gloves. It provides all the essential features you need in a digital multimeter, from AC/DC voltage and current measurements up to 1000V and 10A, to comprehensive capabilities including resistance, capacitance, and frequency checks. It also comes standard with a type K thermocouple so you can measure the temperature of things like your refrigeration systems, heat exchangers, and line sets. The 17B+ also supports relative measurements which allows you to zero out a source reading so you can easily measure changes in things like voltage drop or temperature making it ideal for identifying and diagnosing issues.

The CAT III 600V safety rating provides peace of mind for everything from routine checks on electrical equipment and appliances, to checking voltage levels at power outlets or switches, to diagnosing issues with circuits. If you're looking to build out your toolkit as a DIY enthusiast or early career electrician, look no further than the Fluke 17B+ Digital Multimeter, a reliable and versatile tool that provides the essential features you need.

Specifications: Fluke 17B+ Digital Multimeter

Accuracy Specifications

Accuracy is specified for 1 year after calibration, at operating temperatures of 18 °C to 28 °C, relative humidity at 0% to 75%. Accuracy specifications take the form of: ±(% of Reading + Number of Least Significant Digits).

Function	Range	Resolution	Accuracy
AC volts (40 Hz to 500Hz)[1]	4.000 V 40.00 V 400.0 V 1000 V	0.001 V 0.01 V 0.1 V 1 V	1.0% + 3
DC volts	4.000 V 40.00 V 400.0 V 1000 V	0.001 V 0.01 V 0.1 V 1 V	0.5% + 3
AC millivolts	400.0 mV	0.1 mV	3.0% + 3
DC millivolts	400.0 mV	0.1 mV	1.0% + 10
Diode test[2]	2.000 V	0.001 V	10%
Resistance (Ohms)	400.0 Ω 4.000 kΩ 40.00 kΩ 400.0 kΩ 4.000 MΩ 40.00 MΩ	0.1 Ω 0.001 kΩ 0.01 kΩ 0.1 kΩ 0.001 MΩ 0.01 MΩ	0.5% + 3 0.5% + 2 0.5% + 2 0.5% + 2 0.5% + 2 1.5% + 3
Capacitance[3]	40.00 nF 400.0 nF 4.000 µF 40.00 µF 400.0 µF 1000 µF	0.01 nF 0.1 nF 0.001 µF 0.01 µF 0.1 µF 1 µF	2% + 5 2% + 5 5% + 5 5% + 5 5% + 5 5% + 5
Frequency[1] Hz (10 Hz – 100 kHz)	50.00 Hz 500.0 Hz 5.000 kHz 50.00 kHz 100.0 kHz	0.01 Hz 0.1 Hz 0.001 kHz 0.01 kHz 0.1 kHz	0.1% + 3
Duty Cycle[1]	1% to 99%	0.1%	1% typical [4]
AC current µA (40 Hz to 400 Hz)	400.0 µA 4000 µA	0.1 µA 1 µA	1.5% + 3
AC current mA (40 Hz to 400 Hz)	40.00 mA 400.0 mA	0.01 mA 0.1 mA	1.5% + 3
AC current A (40 Hz to 400 Hz)	4.000 A 10.00 A	0.001 A 0.01 A	1.5% + 3
DC current µA	400.0 µA 4000 µA	0.1 µA 1 µA	1.5% + 3
DC current mA	40.00 mA 400.0 mA	0.01 mA 0.1 mA	1.5% + 3

DC current A	4.000 A 10.00 A	0.001 A 0.01 A	1.5% + 3
Temperature	50 °C- 400 °C 0 °C- 50 °C -55 °C- 0 °C	0.1C	2% ±1 °C ±2 °C 9% ±2 °C
Backlight	-	-	Yes

[1]All ac, Hz, and duty cycle are specified from 1% to 100% of range. Inputs below 1% of range are not specified.
[2]Typically, open circuit test voltage is 2.0 V and short circuit current is <0.6 mA.
[3]Specifications do not include errors due to test lead capacitance and capacitance floor (may be up to 1.5 nF in the 40 nF range).
[4]Typical means when the frequency is at 50 Hz or 60 Hz and the duty cycle is between 10% and 90%.

Function	Overload protection	Input impedance (Nominal)	Common mode rejection ratio	Normal mode rejection ratio
AC volts	1000 V [1]	>10 MΩ <100 pF	>60 dB at dc, 50 Hz or 60 Hz	-
AC millivolts	400 mV	>1MΩ, <100 pF	>80 dB at 50 Hz or 60 Hz	-
DC volts	1000 V [1]	>10 MΩ <100 pF	>100 dB at dc, 50 Hz or 60 Hz	>60 dB at 50 Hz or 60 Hz
DC millivolts	400 mV	>1MΩ, <100 pF	>80 dB at 50 Hz or 60 Hz	-

[1] 10^6 V Hz Max

General specifications	
Maximum voltage between any terminal and earth ground	1000 V
Display (LCD)	4000 counts, updates 3/sec
Battery type	2 AA, NEDA 15A, IEC LR6
Battery life	500 hours minimum
Temperature	
Operating	0 °C to 40 °C
Storage	-30 °C to 60 °C
Relative humidity	
Operating humidity	Non-condensing (<10°C) ≤90% RH at 10 °C to 30 °C ≤75% RH at 30 °C to 40 °C
	40 MΩ range ≤80% RH at 10 °C to 30 °C ≤70% RH at 30 °C to 40 °C
Altitude	
Operating	2000 m
Storage	12,000 m
Temperature coefficient	0.1 X (specified accuracy) /°C (<18 °C or >28 °C)
Fuse protection for current inputs	440 mA, 1000 V Fast Fuse, Fluke specified part only. 11A, 1000V Fast Fuse, Fluke specified part only.

Size (H x W x L)	183 x 91 x 49.5 mm
Weight	455 g
IP rating	IP 40
Safety	IEC 61010-1, IEC61010-2-030 CAT III 600 V, Pollution Degree 2
Electromagnetic compatibility	IEC 61326-1: Portable EMC Environment
Class A equipment (industrial broadcasting and communication equipment)[1] [1] This product meets requirements for industrial (Class A) electromagnetic wave equipment and seller or user should take notice of it. This equipment is intended for use in business environments and is not to be used in homes.	

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Fluke Corporation
PO Box 9090, Everett, WA 98206 U.S.A.

For more information call:
In the U.S.A. (800) 443-5853
In Canada (800) 36-FLUKE
From other countries +1 (425) 446-5500
www.fluke.com