

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 u00b0C to 28 u00b0C, relative humidity at 0% to 75%. Accuracy specifications take the form of: u00b1(% of Reading + Number of Least Significant Digits).

Function	Range	Resolution	Accuracy
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AC volts tt(40 Hz to 500Hz) <sup>1</sup>	4.000 V tt40.00 V tt400.0 V tt1000 V	0.001 V tt0.01 V tt0.1 V tt1 V	1.0% + 3
DC volts	4.000 V tt40.00 V tt400.0 V tt1000 V	0.001 V tt0.01 V tt0.1 V tt1 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 <sup>2</sup>	2.000 V	0.001 V	10%
Resistance tt(Ohms)	400.0 u03a9 tt4.000 ku03a9 tt40.00 ku03a9 tt400.0 ku03a9 tt4.000 Mu03a9 tt40.00 Mu03a9	0.1 u03a9 tt0.001 ku03a9 tt0.01 ku03a9 tt0.1 ku03a9 tt0.001 Mu03a9 tt0.01 Mu03a9	0.5% + 3 tt0.5% + 2 tt0.5% + 2 tt0.5% + 2 tt0.5% + 2 tt1.5% + 3
Capacitance <sup>3</sup>	40.00 nF tt400.0 nF tt4.000 u03bcF tt40.00 u03bcF tt400.0 u03bcF tt1000 u03bcF	0.01 nF tt0.1 nF tt0.001 u03bcF tt0.01 u03bcF tt0.1 u03bcF tt1 u03bcF	2% + 5 tt2% + 5 tt5% + 5 tt5% + 5 tt5% + 5 tt5% + 5
Frequency <sup>1</sup> Hz tt(10 Hz u2013 100 kHz)	50.00 Hz tt500.0 Hz tt5.000 kHz tt50.00 kHz tt100.0 kHz	0.01 Hz tt0.1 Hz tt0.001 kHz tt0.01 kHz tt0.1 kHz	0.1% + 3
Duty Cycle <sup>1</sup>	1% to 99%	0.1%	1% typical <sup>4</sup>
AC current u03bcA tt(40 Hz to 400 Hz)	400.0 u03bcA tt4000 u03bcA	0.1 u03bcA tt1 u03bcA	1.5% + 3
AC current mA tt(40 Hz to 400 Hz)	40.00 mA tt400.0 mA	0.01 mA tt0.1 mA	1.5% + 3
AC current A tt(40 Hz to 400 Hz)	4.000 A tt10.00 A	0.001 A tt0.01 A	1.5% + 3
DC current u03bcA	400.0 u03bcA tt4000 u03bcA	0.1 u03bcA tt1 u03bcA	1.5% + 3
DC current mA	40.00 mA tt400.0 mA	0.01 mA tt0.1 mA	1.5% + 3
DC current A	4.000 A tt10.00 A	0.001 A tt0.01 A	1.5% + 3
Temperature	50 u00b0C- 400 u00b0C tt0 u00b0C- 50 u00b0C tt-55 u00b0C- 0 u00b0C	0.1C	2% u00b011 u00b0C ttu00b012 u00b0C tt9% u00b012 u00b0C
Backlight	-	-	Yes

<sup>1</sup>All ac, Hz, and duty cycle are specified from 1% to 100% of range. Inputs below 1% of range are not specified.

<sup>tt2</sup>Typically, open circuit test voltage is 2.0 V and short circuit current is <0.6 mA.

<sup>tt3</sup>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).

<sup>tt4</sup>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 <sup>1</sup>	>10 Mu03a9 <100 pF	>60 dB at dc, tt50 Hz or 60 Hz	-
AC millivolts	400 mV	>1Mu03a9, <100 pF	>80 dB at 50 Hz or 60 Hz	-
DC volts	1000 V <sup>1</sup>	>10 Mu03a9 <100 pF	>100 dB at dc, tt50 Hz or 60 Hz	>60 dB at 50 Hz or 60 Hz
DC millivolts	400 mV	>1Mu03a9, <100 pF	>80 dB at 50 Hz or 60 Hz	-
<sup>1</sup> 10 <sup>6</sup> V Hz Max				
General specifications				
Maximum voltage between any terminal and earth ground		1000 V		
Display (LCD)		4000 counts, updates 3/sec		
Baery type		2 AA, NEDA 15A, IEC LR6		
Baery life		500 hours minimum		
Temperature				
Operating		0 u00b0C to 40 u00b0C		
Storage		-30 u00b0C to 60 u00b0C		
Relative humidity				
Operating humidity		Non-condensing (<10u00b0C) tt226490% RH at 10 u00b0C to 30 u00b0C tt226475% RH at 30 u00b0C to 40 u00b0C		
		40 Mu03a9 range tt226480% RH at 10 u00b0C to 30 u00b0C tt226470% RH at 30 u00b0C to 40 u00b0C		
Altitude				
Operating		2000 m		
Storage		12,000 m		
Temperature coefficient		0.1 X (specified accuracy) /u00b0C (<18 u00b0C or >28 u00b0C)		
Fuse protection for current inputs		440 mA, 1000 V Fast Fuse, Fluke specified part only. tt11A, 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)<sup>1</sup>

<sup>1</sup> 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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11/2024

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