

Fluke 15B+/17B+ Digital Multimeters

Fluke quality is always within your reach

Technical Data

The Fluke 15B+ and 17B+ digital multimeters are compact, easy to use tools that deliver safe, reliable measurements.

The right tools for the job

Your job requires that you have a rugged, reliable and accurate digital multimeter. The new Fluke 15B+ and 17B+ offer everything you need.

Product highlights

- **NEW** – CAT III 600 V safety rating
- **NEW** – 50 % bigger display with bright white backlight
- **NEW** – Over-voltage indicator (17B+)
- Frequency and temperature measurement (17B+)
- Voltage, resistance, continuity, capacitance
- Input terminal for ac and dc current measurements to 10 A current
- Diode test, data hold



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	
			15B+	17B+
AC volts (40 Hz to 500 Hz) 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	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	0.5 % + 3
AC millivolts	400.0 mV	0.1 mV	3.0 % + 3	3.0 % + 3
DC millivolts	400.0 mV	0.1 mV	1.0 % + 10	1.0 % + 10
Diode test ²	2.000 V	0.001 V	10 %	10 %
Resistance (Ohms)	400.0 Ω	0.1 Ω	0.5 % + 3	0.5 % + 3
	4.000 kΩ	0.001 kΩ	0.5 % + 2	0.5 % + 2
	40.00 kΩ	0.01 kΩ	0.5 % + 2	0.5 % + 2
	400.0 kΩ	0.1 kΩ	0.5 % + 2	0.5 % + 2
	4.000 MΩ	0.001 MΩ	0.5 % + 2	0.5 % + 2
	40.00 MΩ	0.01 MΩ	1.5 % + 3	1.5 % + 3

Function	Range	Resolution	Accuracy	
			15B+	17B+
Capacitance ³	40.00 nF	0.01 nF	2 % + 5	2 % + 5
	400.0 nF	0.1 nF	2 % + 5	2 % + 5
	4.000 µF	0.001 µF	5 % + 5	5 % + 5
	40.00 µF	0.01 µF	5 % + 5	5 % + 5
	400.0 µF	0.1 µF	5 % + 5	5 % + 5
	1000 µF	1 µF	5 % + 5	5 % + 5
Frequency ¹ Hz (10 Hz to 100 kHz)	50.00 Hz	0.01 Hz	NA	0.1 % + 3
	500.0 Hz	0.1 Hz		
	5.000 kHz	0.001 kHz		
	50.00 kHz	0.01 kHz		
	100.0 kHz	0.1 kHz		
Duty cycle ¹	1 % to 99 %	0.1 %	NA	1 % typical ⁴
AC current µA (40 Hz to 400 Hz)	400.0 µA	0.1 µA	1.5 % + 3	1.5 % + 3
	4000 µA	1 µA		
AC current mA (40 Hz to 400 Hz)	40.00 mA	0.01 mA	1.5 % + 3	1.5 % + 3
	400.0 mA	0.1 mA		
AC current A (40 Hz to 400 Hz)	4.000 A	0.001 A	1.5 % + 3	1.5 % + 3
	10.00 A	0.01 A		
DC current µA	400.0 µA	0.1 µA	1.5 % + 3	1.5 % + 3
	4000 µA	1 µA		
DC current mA	40.00 mA	0.01 mA	1.5 % + 3	1.5 % + 3
	400.0 mA	0.1 mA		
DC current A	4.000 A	0.001 A	1.5 % + 3	1.5 % + 3
	10.00 A	0.01 A		
Temperature	50 °C to 400 °C	0.1 °C	NA	2 % ± 1 °C
	0 °C to 50 °C			± 2 °C
	-55 °C to 0 °C			9 % ± 2 °C
Backlight	–	–	Yes	Yes

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

²Typically, open circuit test voltage is 2.0 V and short circuit current is <0.6 mA.

³Specifications do not include errors due to test lead capacitance and capacitance floor (may be up to 1.5 nF in the 40 nF range).

⁴Typical 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	>1 MΩ, <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	>1 MΩ, <100 pF	>80 dB at 50 Hz or 60 Hz	–

¹10⁶ 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 15 A, IEC LR6
Battery life	500 hours minimum (50 hours in LED Test mode without load. The hours with load depends on the type of LED under test.)
Temperature	Operating: 0 °C to 40 °C; Storage: -30 °C to 60 °C
Relative humidity	Operating humidity: ≤ 90 % RH at 10 °C to 30 °C; ≤ 75 % RH at 30 °C to 40 °C; non-condensing (<10 °C)
Operating humidity, 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. 11 A, 1000 V fast fuse, Fluke specified part only
Size (HxWxL)	183 mm x 91 mm x 49.5 mm
Weight	455 g
IP rating	IP40
Safety	IEC 61010-1, IEC61010-2-030 CAT III 600 V, CAT II 1000 V, Pollution Degree 2
Electromagnetic environment	IEC 61326-1: Portable
Electromagnetic compatibility	Applies to use in Korea only

Class A Equipment (Industrial Broadcasting & Communication Equipment)¹

¹This 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.

Ordering information

FLUKE-15B+ Digital Multimeter

FLUKE-17B+ Digital Multimeter

Included

Test leads with caps, thermocouple temperature probe (17B+), 2 AA batteries, users manual.

Optional accessories

TPAK Meter Hanging Kit

TL175 TwistGuard™ Test Leads



Fluke. *Keeping your world up and running.*®

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