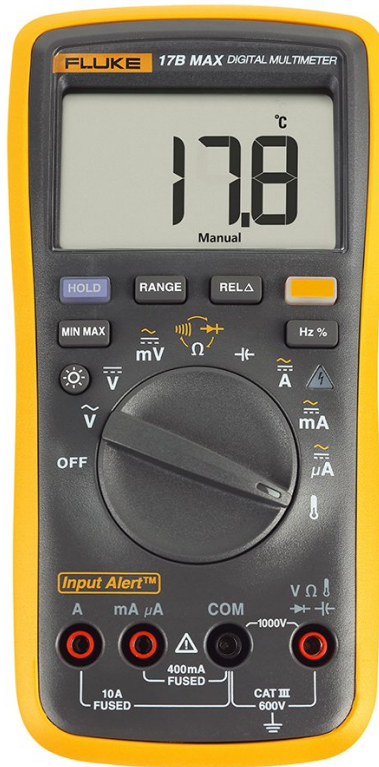


## TECHNICAL DATA

# Fluke 17B MAX Digital Multimeter



## Key features

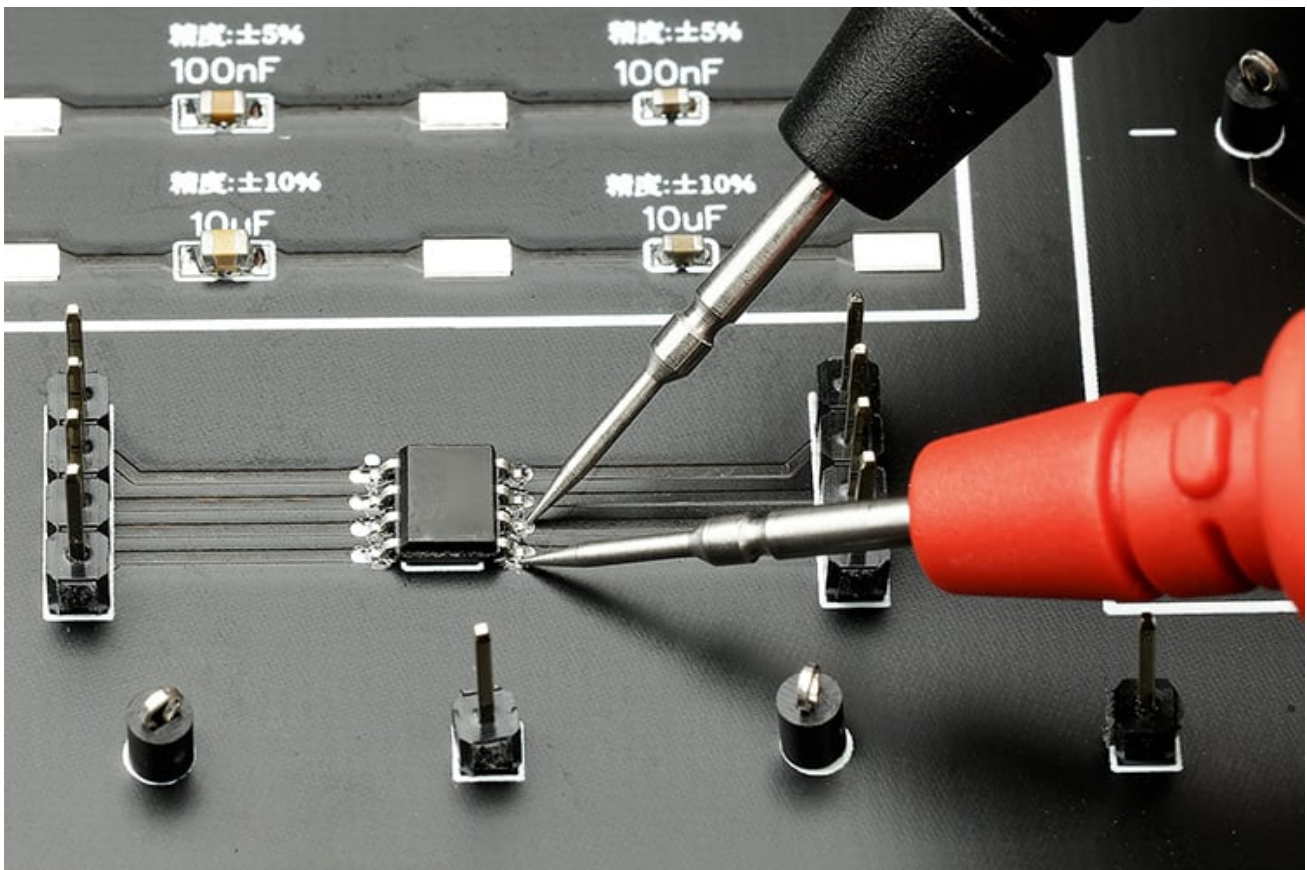
- Audible and visual alarm for incorrect connections
- Test leads with fine tips for circuit board testing
- Simple interface to wake meter from sleep mode by activating any buttons
- Voltage: 6000-count reading
- Capacitance range: 2000uF
- Safety rating: CATIII 600V
- Frequency and temperature measurement

## Product overview: Fluke 17B MAX Digital Multimeter

Fluke 17B MAX Inherits and continues the classic design of 17B+, with further improved functions: Input Alert Alarm, Simple interface to wake meter from sleep mode by activating any buttons, test leads with fine probes to help electricians and electronic R&D personnel make accurate measurements.



Audible and visual alarm for incorrect connections



Test leads with fine tips for circuit board testing

## Specifications: Fluke 17B MAX Digital Multimeter

### 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:  $\pm ([\% \text{ of Reading}] + [\text{Number of Least Significant Digits}])$ .

Function	Range	Resolution	Accuracy	
			15B MAX	17B MAX
AC Volts (40 Hz to 500 Hz) <sup>1</sup>	6.000 V 60.00 V 600.0 V 1000 V	0.001 V 0.01 V 0.1 V 1 V	1.0 % + 3	1.0 % + 3
AC Millivolts	600.0 mV	0.1 mV	3.0 % + 3	3.0 % + 3
DC Volts	6.000 V 60.00 V 600.0 V 1000 V	0.001 V 0.01 V 0.1 V 1 V	0.5 % + 3	0.5 % + 3
DC Millivolts	600.0 mV	0.1 mV	1.0 % + 10	1.0 % + 10
AC Current $\mu\text{A}$ (40 Hz to 400 Hz) <sup>2</sup>	400.0 $\mu\text{A}$ 4000 $\mu\text{A}$	0.1 $\mu\text{A}$ 1 $\mu\text{A}$	1.5 % + 3	1.5 % + 3
AC Current mA (40 Hz to 400 Hz) <sup>2</sup>	40.00 mA 400.0 mA	0.01 mA 0.1 mA	1.5 % + 3	1.5 % + 3
AC Current A (40 Hz to 400 Hz) <sup>2</sup>	4.000 A 10.00 A	0.001 A 0.01 A	1.5 % + 3	1.5 % + 3
DC Current $\mu\text{A}$ <sup>2</sup>	400.0 $\mu\text{A}$ 4000 $\mu\text{A}$	0.1 $\mu\text{A}$ 1 $\mu\text{A}$	1.5 % + 3	1.5 % + 3
DC Current mA <sup>2</sup>	40.00 mA 400.0 mA	0.01 mA 0.1 mA	1.5 % + 3	1.5 % + 3
DC Current A <sup>2</sup>	4.000 A 10.00 A	0.001 A 0.01 A	1.5 % + 3	1.5 % + 3
Diode Test <sup>3</sup>	2.000 V	0.001 V	10%	10%
Temperature <sup>4</sup>	50.0 °C to 400.0 °C 0 °C to 50.0 °C -55.0 °C to 0 °C	0.1 °C	NA	2 % + 1 °C 2 °C 9 % + 2 °C
Resistance (Ohms) <sup>5</sup>	400.0 $\Omega$ 4.000 k $\Omega$ 40.00 k $\Omega$ 400.0 k $\Omega$ 4.000 M $\Omega$ 40.00 M $\Omega$	0.1 $\Omega$ 0.001 k $\Omega$ 0.01 k $\Omega$ 0.1 k $\Omega$ 0.001 M $\Omega$ 0.01 M $\Omega$	0.5 % + 3 0.5 % + 2 0.5 % + 2 0.5 % + 2 0.5 % + 2 1.5 % + 3	0.5 % + 3 0.5 % + 2 0.5 % + 2 0.5 % + 2 0.5 % + 2 1.5 % + 3
Capacitance <sup>6</sup>	40.00 nF 400.0 nF 4.000 $\mu\text{F}$ 40.00 $\mu\text{F}$ 400.0 $\mu\text{F}$ 2000 $\mu\text{F}$	0.01 nF 0.1 nF 0.001 $\mu\text{F}$ 0.01 $\mu\text{F}$ 0.1 $\mu\text{F}$ 1 $\mu\text{F}$	2 % + 5 2 % + 5 5 % + 5 5 % + 5 5 % + 5 5 % + 5	2 % + 5 2 % + 5 5 % + 5 5 % + 5 5 % + 5 5 % + 5

## 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:  $\pm$  ([% of Reading] + [Number of Least Significant Digits]).

Frequency <sup>1</sup> (10 Hz to 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	NA	0.1 % + 3
Duty Cycle <sup>1</sup>	1% to 99%	0.10%	NA	1 % typical <sup>7</sup>
Continuity Threshold	—	—	70Ω	70Ω
Backlight	—	—	Yes	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>2</sup> Typical burden voltage: DC/AC Current  $\mu$ A: 100  $\mu$ V /  $\mu$ A; DC/AC Current mA: 2 mV/mA; DC/AC Current A: 0.03 V/A

<sup>3</sup> Typically, open circuit test voltage is 2.0 V and short circuit current is <0.6 mA

<sup>4</sup> Use Type K thermocouple

<sup>5</sup> Typical open circuit test voltage is 0.54 V, maximum short circuit current is 1.8 mA

<sup>6</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>7</sup> Typical means when the frequency is at 50 Hz or 60 Hz and the duty cycle is between 10 % and 90 %.

## Input Characteristics

Function	Overload Protection	Input Impedance (Nominal)	Common Mode Rejection Ratio	Normal Mode Rejection Ratio
AC Volts	1000 V <sup>1</sup>	>10 MΩ, <100 pF	>60 dB at 50 Hz or 60 Hz	—
AC Millivolts	1000 V <sup>1</sup>	>1 MΩ, <100 pF	>80 dB at 50 Hz or 60 Hz	—
DC Volts	1000 V <sup>1</sup>	>10 MΩ, <100 pF	>100 dB at 50 Hz or 60 Hz	>60 dB at 50 Hz or 60 Hz
DC Millivolts	1000 V <sup>1</sup>	>1 MΩ, <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	600 V
Maximum differential voltage between V and COM terminals	1000V
Display (LCD)	6000 counts, updates 3/sec
Battery Type	2 AA, 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); $\leq$ 90 % RH at 10 °C to 30 °C; $\leq$ 75 % RH at 30 °C to 40 °C
Operating Humidity, 40 MΩ range	$\leq$ 80 % RH at 10 °C to 30 °C; $\leq$ 70 % RH at 30 °C to 40 °C
Altitude	Operating 2000 m; Storage 12000 m
Temperature Coefficient	0.1 X (specified accuracy) / °C (<18 °C or >28 °C)
Fuse protection for current inputs	440 mA, 1000 V, fast-blow, use only Fluke specified parts. 11 A, 1000 V, fast-blow, use only Fluke specified parts
Size (HxWxL)	183 mm x 91 mm x 49.5 mm



Weight	455 g
Ingress Protection	IP40
Safety	IEC 61010-1, IEC61010-2-030: CAT III 600 V, Pollution Degree 2
Electromagnetic Environment	IEC 61326-1: Portable
Electromagnetic Compatibility (EMC)	Only applicable in Korea

Class A Equipment (Industrial Broadcasting & Communication Equipment)<sup>1</sup>  
<sup>1</sup>Equipment meets requirements for industrial electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and not to be used in homes.

## Ordering information



### Fluke 17B MAX-01 Digital Multimeter

Includes:

- TL75 Test Leads with 2 Protective Caps
- Type K Thermocouple
- 2 AA Batteries
- Safety information

### Fluke 17B MAX-02 Digital Multimeter

Includes:

- TL31 Extra-Slim Test Leads with 2 Protective Caps
- Type K Thermocouple
- 2 AA Batteries
- Safety information

### Fluke 17B MAX KIT Digital Multimeter

Includes:

- TL75 Test Leads with 2 Protective Caps
- TL31 Extra-Slim Test Leads with 2 Protective Caps
- Type K Thermocouple
- 2 AA Batteries
- Safety information



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