

Technical Data

Fluke 15B MAX & 17B MAX Digital Multimeter

New Upgrade of Your Old Partner
Safer, Easier to Use, More Efficient



The Fluke 15B MAX and 17B MAX Digital Multimeters inherit the classic design of Fluke multimeters and fully upgrade their functions to meet your requirements for safe, accurate, durable, and easy-to-use measurements.

Key Features

- **NEW**¹ - Input Alert™ alarm for wrong operation
- **NEW** - Standard test leads with fine tips²
- **NEW** - One-Key Wake-Up
- **NEW** - Voltage reading upgraded to 6000 counts
- **NEW** - Capacitance improved to 2000 uF
- CAT III 600V safety rating
- Frequency and temperature measurement (17B MAX)

Input Alert™ Audible and Visual Alarm—Increased Safety

It is a common wrong operation to select voltage and other functions while the test lead is inserted into the current terminals. In this case, taking a measurement directly may blow the fuse in the multimeter.

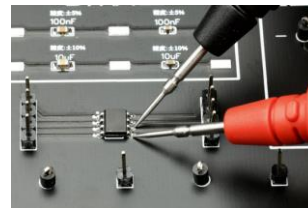
The 15B MAX and 17B MAX feature Input Alert™, an audible and visual alarm to alert users in the event of wrong operation, avoiding productivity loss and safety issues caused by fuse blown.



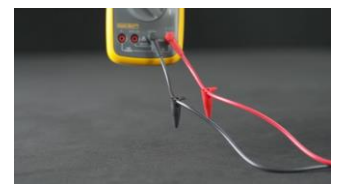
Wrong Operation Scenario

Standard Test Leads with Fine Tips - Insight

Standard test leads with 1mm tips² can help engineers make accurate measurements on circuit boards and in narrow spaces.



Streamlined test leads feature texture enhancing the grip, and the selected tip material is rugged and durable. The test lead cap can cover its sharp tip to avoid hurting users; it can be clipped on the lead during measurements to avoid loss; the test lead meets safety requirements of 10A and 1000V, and supports CAT III 600V testing.



One-Key Wake-Up — High Efficiency

In Sleep mode, pressing any key can wake up the multimeter and restore to the default function of the rotary switch.



¹ NEW stands for the features upgraded from 15B+ & 17B+ products

² Only models 15B MAX-02, 15B MAX KIT, 17B MAX-02 and 17B MAX KIT come with test leads with fine tips as standard

Specifications

Accuracy is specified for 1 year after calibration, at operating temperatures of 18 °C to 28 °C with relative humidity at 0 % to 75 %. Accuracy specifications take the form of:

± ([% of Reading] + [Number of Least Significant Digits]).

Function	Range	Resolution	Accuracy	
			15B MAX	17B MAX
AC Volts (40 Hz to 500 Hz) ¹	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 µA (40 Hz to 400 Hz) ²	400.0 µA 4000 µA	0.1 µA 1 µA	1.5 % + 3	1.5 % + 3
AC Current mA (40 Hz to 400 Hz) ²	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) ²	4.000 A 10.00 A	0.001 A 0.01 A	1.5 % + 3	1.5 % + 3
DC Current µA ²	400.0 µA 4000 µA	0.1 µA 1 µA	1.5 % + 3	1.5 % + 3
DC Current mA ²	40.00 mA 400.0 mA	0.01 mA 0.1 mA	1.5 % + 3	1.5 % + 3
DC Current A ²	4.000 A 10.00 A	0.001 A 0.01 A	1.5 % + 3	1.5 % + 3
Diode Test ³	2.000 V	0.001 V	10 %	10 %
Temperature ⁴	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 (ohm) ⁵	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 0.5 % + 2 1.5 % + 3	0.5 % + 3 0.5 % + 2 0.5 % + 2 0.5 % + 2 0.5 % + 2 0.5 % + 2 1.5 % + 3
Capacitance ⁶	40.00 nF 400.0 nF 4.000 µF 40.00 µF 400.0 µF 2000 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	2 % + 5 2 % + 5 5 % + 5 5 % + 5 5 % + 5 5 % + 5
Frequency ¹ (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 ¹	1% to 99%	0.1 %	NA	1 % typical ⁷
Continuity Threshold	—	—	70 Ω	70 Ω
Backlight	—	—	Yes	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 Typical burden voltage DC/AC current µA: 100 µV / µA, DC/AC current mA: 2 mV/mA, DC/AC current A: 0.03 V/A

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

⁴ Use K-type thermocouples

⁵ Typically, open circuit test voltage is 0.54 V, maximum short circuit current is 1.8 mA

⁶ 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).

⁷ 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 ¹	>10 MΩ, <100 pF	>60 dB, at 50 Hz or 60 Hz	—
AC Millivolts	1000 V ¹	>1 MΩ, <100 pF	>80 dB, at 50 Hz or 60 Hz	—
DC Volts	1000 V ¹	>10 MΩ, <100 pF	>100 dB, at 50 Hz or 60 Hz	>60 dB, at 50 Hz or 60 Hz
DC Millivolts	1000 V ¹	>1 MΩ, <100 pF	>80 dB, at 50 Hz or 60 Hz	—

¹ 10⁶ 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 times per second
Battery Type	2 AA, IEC LR6
Battery Life	500 hours minimum
Temperature	Operating: 0 °C to 40 °C; Storage: -30 °C to 60 °C
Operating Humidity	≤ 90 % RH at 10 °C to 30 °C; ≤ 75 % 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: 12000 m
Temperature Coefficient	0.1 x (specified accuracy) /°C (<18 °C or >28 °C)
Fuse Protection for Current Inputs	440 mA, 1000 V IR 10 kA, fast-fuse, use only Fluke specified parts. 11 A, 1000 V IR 20 kA, fast-fuse, use only Fluke specified parts
Dimensions (H x W x L)	183 mm x 91 mm x 49.5 mm
Weight	455 g
Ingress Protection	IP40
Safety	IEC 61010-1, IEC61010-2-033 CAT III 600 V, Pollution Degree 2
Electromagnetic Environment	IEC 61326-1: Portable
Electromagnetic Compatibility	Only applicable in Korea

Class A Equipment (Industrial Broadcasting & Communication Equipment)¹




¹ 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-15B MAX-01 Digital Multimeter
- FLUKE-15B MAX-02 Digital Multimeter
- FLUKE-15B MAX KIT Digital Multimeter
- FLUKE-17B MAX-01 Digital Multimeter
- FLUKE-17B MAX-02 Digital Multimeter
- FLUKE-17B MAX KIT Digital Multimeter

Included

- 2 AA Batteries
- Safety Information
- Test leads with caps, thermocouple temperature probe (see table below)

Test Leads and Temperature Probes	TL75 Test Lead	TL31 Test Lead with Fine Tip	K-Type Thermocouples
			
15B MAX-01	•		
15B MAX-02		•	
15B MAX KIT	•	•	
17B MAX-01	•		•
17B MAX-02		•	•
17B MAX KIT	•	•	•

Optional Accessories

- TPAK Meter Hanging Kit
- L200 Probe Light



15B MAX KIT



17B MAX KIT

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