

## TECHNICAL DATA

# Fluke 107 Pocket Digital Multimeter



## Key features

- CAT III 600 V safety rating
- Current and voltage measurements
- Measures resistance and continuity to check for broken wires
- Data hold and backlit display to keep you working safe and fast

## Product overview: Fluke 107 Pocket Digital Multimeter

The Fluke 107 is a compact, palm size easy-to-use digital multimeter made to fit the way you work. It is the perfect first-pass troubleshooting tool; small enough to fit in a shirt pocket yet tough enough to withstand daily use, including a 1-meter drop test. For everyday applications where true-rms accuracy isn't needed, the Fluke 107 delivers reliable measurements time after time. With a CAT III 600 V safety rating, you don't need to compromise safety. The Fluke 107 offers a comfortable grip, weighs only 200 g, and is easy to carry.

## Fluke 107 measurement test functions

- AC and DC voltage
- AC and DC current
- Resistance

- Capacitance
- Diode
- Frequency and duty-cycle

### Fluke 107 comes ready to work

The Fluke 107 comes with a TL75 Hard Point™ Test Lead Set. It's one pair (red, black) of 48 inch (1.22 meter) test leads with right-angle, shrouded banana plugs. The meter also includes a SmartStrap™ intelligent magnetic multi-purpose lanyard that lets you hang the Fluke 107 from any ferrous surface or support the meter at an angle for easy viewing.

## Specifications: Fluke 107 Pocket Digital Multimeter

Accuracy is available for one year after calibration, operating from 18 °C to 28 °C and relative humidity from 0% to 75%. The format of the accuracy specification is:  $\pm$  ([% of reading] + [least significant digit])

Precision specifications			
	Range	Resolution	Accuracy
<b>AC voltage</b> <b>(40 Hz to 500 Hz)<sup>1</sup></b>	6.000 V	0.001 V	1.0 % + 3
	60.00 V	0.01 V	
	600.0 V	0.1 V	
<b>DC voltage</b>	6.000 V	0.001 V	0.5 % + 3
	60.00 V	0.01 V	
	600.0 V	0.1 V	
<b>Exchange millivolts</b>	600.0 mV	0.1 mV	3.0 % + 3
<b>Diode test<sup>2</sup></b>	2.000 V	0.001 V	10 %
<b>Resistance</b> <b>(ohm)</b>	400.0 $\Omega$	0.1 $\Omega$	0.5 % + 3
	4.000 k $\Omega$	0.001 k $\Omega$	0.5 % + 2
	40.00 k $\Omega$	0.01 k $\Omega$	0.5 % + 2
	400.0 k $\Omega$	0.1 k $\Omega$	0.5 % + 2
	4.000 M $\Omega$	0.001 M $\Omega$	0.5 % + 2
	40.00 M $\Omega$	0.01 M $\Omega$	1.5 % + 3
<b>Capacitor<sup>3</sup></b>	50.00 nF	0.01 nF	2 % + 5
	500.0 nF	0.1 nF	2 % + 5
	5.000 $\mu$ F	0.001 $\mu$ F	5 % + 5
	50.00 $\mu$ F	0.01 $\mu$ F	5 % + 5
	500.0 $\mu$ F	0.1 $\mu$ F	5 % + 5
	1000 $\mu$ F	1 $\mu$ F	5 % + 5
<b>Frequency<sup>4</sup> Hz</b> <b>(10 Hz – 100 kHz)</b>	50.00 Hz	0.01 Hz	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	
<b>Duty cycle<sup>4</sup></b>	1 % to 99 %	0.10 %	1 % typical case <sup>5</sup>
<b>AC current</b> <b>(40 Hz - 200 Hz)</b>	4.000 A	0.001 A	1.5 % + 3
	10.00 A	0.01 A	
<b>DC</b>	4.000 A	0.001 A	1.5 % + 3
	10.00 A	0.01 A	

1. All AC current, frequency, and duty cycle are specified from 1% to 100% of the range. Input values below 1% of range are not specified.
2. Typically, the open circuit test voltage is 2.0 V and the short circuit current is < 0.6 mA.
3. The parameters do not include errors due to test lead capacitance and capacitor substrate (up to 1.5 nF in the 50 nF range).
4. All AC current, frequency, and duty cycle are specified from 1% to 100% of the range. Input values below 1% of range are not specified.
5. Typically, the frequency is 50 Hz or 60 Hz and the duty cycle is 10% to 90%.

Features	Overload protection	Input impedance (nominal value)	Common mode rejection ratio	Normal mode rejection ratio
<b>AC voltage</b>	600 V <sup>1</sup>	>10 MΩ <100 pF <sup>2</sup>	>60 dB at 50 Hz or 60 Hz at DC current	–
<b>Exchange millivolts</b>	600 mV	>1M, <100 pF	>80 dB at 50 Hz or 60 Hz	–
<b>DC voltage</b>	600 V <sup>1</sup>	>10 MΩ <100 pF	>100 dB at 50 Hz or 60 Hz at DC current	>60 dB at 50 Hz or 60 Hz

1. Up to 6 x 10<sup>5</sup> V Hz
2. For medium voltage (alternating current), the input impedance is approximately 1 MΩ.

#### General technical indicators

<b>The highest voltage applied to any terminal and ground</b>	600 V
<b>Display (LCD)</b>	6000 counts, updated three times per second
<b>Type of battery</b>	Two AAA batteries (NEDA 24A, IEC LR03)
<b>Battery life</b>	At least 200 hours
<b>Temperature</b>	
<b>Operating temperature</b>	0 °C to 40 °C
<b>Storage temperature</b>	-30 °C to 60 °C
<b>Relative humidity</b>	
<b>Working humidity</b>	No condensation below 10 °C ≤ 90 % at 10 °C to 30 °C; ≤ 75 % at 30 °C to 40 °C
<b>Working humidity, 40 MΩ range</b>	≤ 80 % at 10 °C to 30 °C; ≤ 70 % at 30 °C to 40 °C
<b>Altitude</b>	
<b>Working elevation</b>	2000 m
<b>Storage altitude</b>	12,000 m
<b>Temperature coefficient</b>	0.1 X (specified accuracy) / °C (<18 °C or >28 °C)
<b>Current input fuse protection</b>	11A, 1000V fast-melting type, must use Fluke designated parts
<b>Volume (height x width x length)</b>	142 mm x 69 mm x 28 mm
<b>Weight</b>	200 g
<b>Protection level</b>	IEC 60529: IP 40
<b>Safety</b>	IEC 61010-1: 600 V CAT III, pollution degree 2
<b>Electromagnetic environment</b>	IEC 61326-1: Portable



<b>Electromagnetic compatibility</b>	Applicable only in Korea. Class A equipment (industrial broadcasting and communication equipment) <sup>1</sup>
<sup>1</sup> This product meets the requirements of industrial (Class A) electromagnetic wave equipment, which should be noted by the seller or user. The device is suitable for use in a work environment, not a home environment.	

## Ordering information



### Fluke 107

Fluke 107 Palm-sized, CAT III Digital Multimeter

Includes:

- Fluke 107 Palm-sized, CAT III Digital Multimeter
- TL75 Hard Point™ Test Lead Set
- Two AAA batteries (installed)
- SmartStrap™ intelligent magnetic multi-purpose lanyard

#### Optional accessories

##### Fluke TL175 TwistGuard™ Test Leads

#### Description

Simply twist to change the exposed probe tip length.

##### Fluke Pack30 Professional Tool Backpack

The Fluke Pack30 tool backpack gives you a comfortable hands-free experience vs. traditional tool belts that put all the weight on your lower back.

##### Fluke i400 AC Current Clamp

Fluke i400 AC current clamps extend the use of digital multimeters. Get a single range 400 A AC clamp in a compact shape.

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

**Fluke Europe B.V.**

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