

# Fluke 106/107 Palm-sized Digital Multimeters

Fluke 106 and 107  
put measurements in  
the palm of your hand

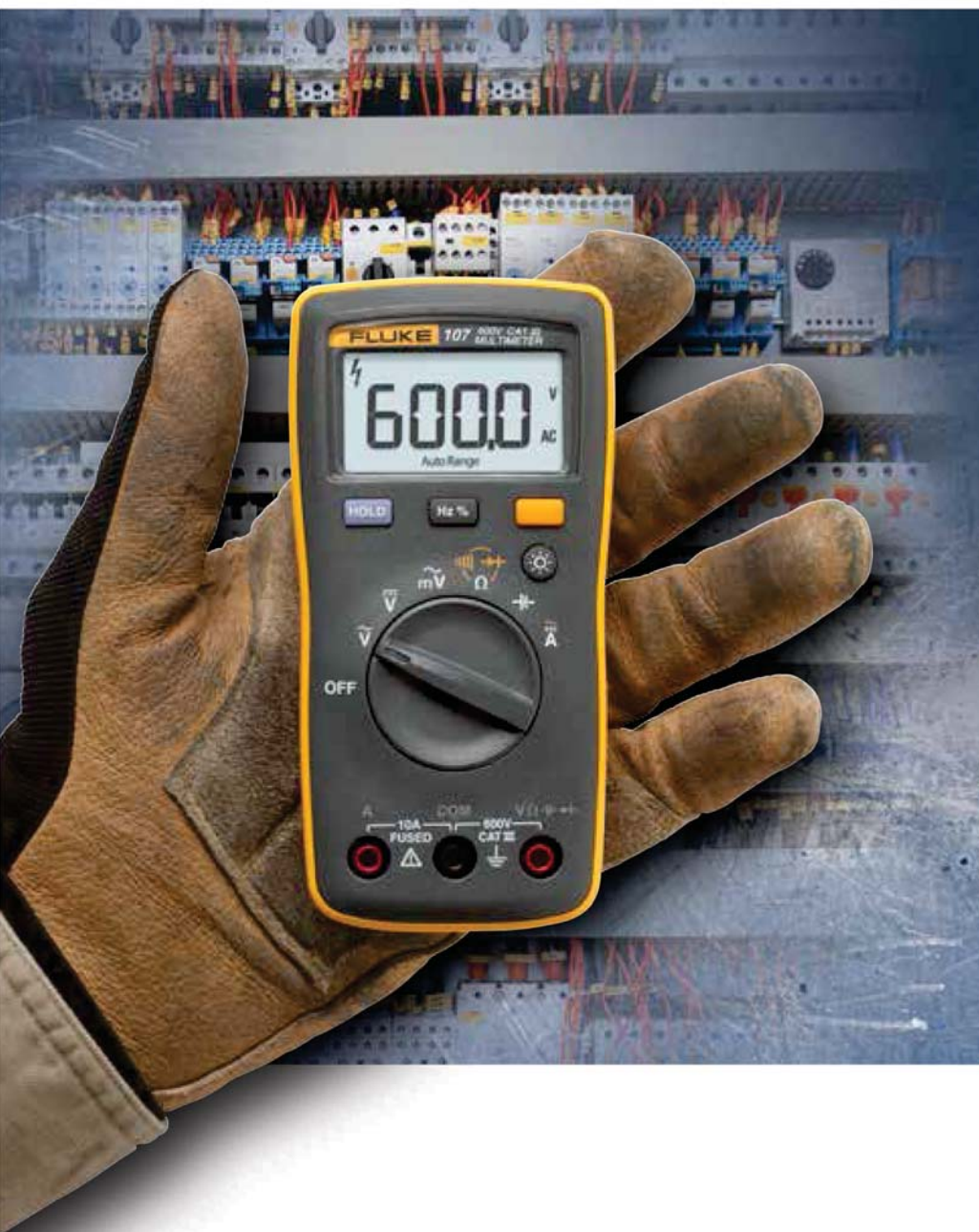
## Technical Data

The Fluke 106 and 107 are compact, easy to use tools. These are palm-sized digital multimeters deliver safe, reliable measurements time after time.

The Fluke 106 and 107 are great products made to fit the way you work! These are the only Fluke digital multimeters designed to fit in the palm of your hand and go with you no matter where your job takes you.

### Product highlights

- Voltage, resistance, continuity, capacitance
- Input terminal for ac and dc current measurements to 10 A and current
- Data hold
- Backlit display (107 only)
- Diode test, plus frequency and duty cycle measurements (107 only)



# Specifications

## Electrical 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	
			106	107
AC volts (40 Hz to 500 Hz) <sup>1</sup>	6.000 V 60.00 V 600.0 V	0.001 V 0.01 V 0.1 V	1.0% + 3	1.0% + 3
DC volts	6.000 V 60.00 V 600.0 V	0.001 V 0.01 V 0.1 V	0.5% + 3	0.5% + 3
AC millivolts	600.0 mV	0.1 mV	3.0% + 3	3.0% + 3
Diode test <sup>2</sup>	2.000 V	0.001 V	N/A	10%
Resistance (ohms)	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 1.5% + 3	0.5% + 3 0.5% + 2 0.5% + 2 0.5% + 2 0.5% + 2 1.5% + 3
Capacitance <sup>3</sup>	50.00 nF 500.0 nF 5.000 μF 50.00 μF 500.0 μF 1000 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 <sup>4</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	N/A	0.1% + 3
Duty cycle <sup>5</sup>	0.1% to 99.9%	0.1%	N/A	1% typical <sup>4</sup>
AC current (40 Hz to 200 Hz)	4.000 A 10.00 A	0.001 A 0.01 A	1.5% + 3	1.5% + 3
DC current	4.000 A 10.00 A	0.001 A 0.01 A	1.5% + 3	1.5% + 3
Backlight	—	—	No	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> Typically, open circuit test voltage is 2.0 V and short circuit current is < 0.6 mA.

<sup>3</sup> Specifications do not include errors due to test lead capacitance and capacitance floor (may be up to 1.5 nF in the 50 nF range).

<sup>4</sup> All AC, Hz, and duty cycle are specified from 1% to 100% of range. Inputs below 1% of range are not specified.

<sup>5</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	600 V <sup>1</sup>	> 10 MΩ < 100 pF <sup>2</sup>	> 60 dB at dc, 50 Hz or 60 Hz	—
AC millivolts	600 mV	> 1M < 100 pF	> 80 dB at 50 Hz or 60 Hz	—
DC volts	600 V <sup>1</sup>	> 10 MΩ < 100 pF	> 100 dB at dc, 50 Hz or 60 Hz	> 45 dB at 50 Hz or 60 Hz

<sup>1</sup> 6 x 105 V Hz Max.

<sup>2</sup> For mV (AC), input impedance is approximately 1 MΩ.

## Ordering information

FLUKE-106 Digital Multimeter  
FLUKE-107 Digital Multimeter

### Included equipment

- TL75 Test leads
- 2 AAA Batteries (installed)

## General specifications

Maximum voltage between any terminal and earth ground	600 V
Display (LCD)	6000 counts, updates 3/sec
Battery type	2 AAA, NEDA 24A, IEC LRO3
Battery life	200 hours minimum
Temperature	Operating: 0 °C to 40 °C Storage: -30 °C to 60 °C
Relative humidity	Operating Humidity: Non-condensing when < 10°C ≤ 90% at 10 °C to 30 °C; ≤ 75% at 30 °C to 40 °C Operating Humidity, 40 MΩ Range: ≤ 80% at 10 °C to 30 °C; ≤ 70% 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	11 A, 1000 V Fast Fuse, Fluke specified part only
Size (HxWxL)	142 mm x 69 mm x 28mm
Weight	200 g
IP rating	IEC 60529: IP 40
Safety	IEC 61010-1: 600 V CAT III, Pollution Degree 2
Electromagnetic environment	IEC 61326-1: portable
Electromagnetic compatibility	Applies to use the Korea only. Class A Equipment (Industrial broadcasting and communication equipment) <sup>1</sup>
Warranty	One year

<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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### Fluke Corporation

PO Box 9090, Everett, WA 98206 U.S.A.

### Fluke Europe B.V.

PO Box 1186, 5602 BD Eindhoven, The Netherlands

### For more information call:

In the U.S.A. (800) 443-5853 or  
Fax (425) 446-5116  
In Europe/M-East/Africa +31 (0) 40 2675 200 or  
Fax +31 (0) 40 2675 222  
In Canada (800)-36-FLUKE or  
Fax (905) 890-6866  
From other countries +1 (425) 446-5500 or  
Fax +1 (425) 446-5116  
Web access: <http://www.fluke.com>

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# Fluke i400E AC Current Clamp (Digital Multimeter Accessory)

## Technical Data

### Expand the use of your digital multimeter.

The Fluke i400E AC Current Clamp is an ideal tool to extend current measurement. It is designed to work with the new Fluke 101, 106 and 107 palm sized digital multimeters, as well as most Fluke multimeters or other voltage measurement tools that accepts 19.05 mm shrouded banana plugs and has mV ac measurement functionality.

#### Product highlights

- Compatible with most Fluke multimeters or mV ac measurement tools with these features:
  - 400 mV ac range
  - 19.05 mm banana jack inputs
  - Input accuracy of 2 % or greater to take full advantage of the accuracy of the product
  - Input impedance of >1 M $\Omega$
- 1 mV/A ac output guarantees easy current readings on you meter
- CAT III 600 V safety rating
- Specially designed to offer maximum utility in a very compact shape
- Take accurate current readings without breaking the circuit
- One-year warranty



Electrical specifications	
AC current range	1 A to 400 A
Output signal	1 mV/A ac
Accuracy	2.0 % ± 5 digits (45 Hz to 65 Hz) 2.5 % ± 5 digits (65 Hz to 400 Hz)
Typical bandwidth	5 Hz to 20 kHz
Working voltage	600 V ac rms, in compliance with IEC 61010-1 and IEC 61010-2-030
Load impedance	>1 MΩ
Maximum non-destructive current	600 A
Jaw inner diameter	30 mm
Maximum wire size	600 MCM
Standard plugs	19.04 mm dual banana plugs

Safety specifications	
Category rating	IEC 61010-1 and IEC 61010-2-030/IEC 61010-2-031 and IEC 61010-2-032: 600 V CAT III Pollution Degree 2
Electromagnetic environment	IEC 61326-1: Portable

General specifications	
Output cable length	1 m
Operating temperature	-10 °C to +50 °C
Storage temperature	-30 °C to +60 °C
Relative humidity	≤90 % at 10 °C to 530 °C; ≤75 % at 30 °C to 540 °C; ≤45 % at 40 °C to 50 °C
IP rating	IEC 60529: IP30 when jaw closed
Temperature coefficients	Add 0.1 x specified accuracy for each °C above 28°C or below 18 °C.
Operating altitude	2,000 meters
Storage altitude	12,000 meters
Vibration requirements	MIL-PRF-28800F, Class 2
Drop test requirements	-10 °C, 1m, 6 sides, oak wood
Jaw impact test requirements	Follow EN/IEC 61010-2-032:2012
EML, RFI, EMC	IEC/EN 61326-1
Dimensions (HxWxD)	146 mm x 62 mm x 34 mm
Weight	150 g

## Ordering information

### FLUKE-i400E AC Current Clamp

#### Included with product:

AC current clamp accessory with attached output cable, registration card and user instructions

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#### For more information call:

In the U.S.A. (800) 443-5853 or  
Fax (425) 446-5116  
In Europe/M-East/Africa +31 (0) 40 2675 200 or  
Fax +31 (0) 40 2675 222  
In Canada (800)-36-FLUKE or  
Fax (905) 890-6866  
From other countries +1 (425) 446-5500 or  
Fax +1 (425) 446-5116  
Web access: <http://www.fluke.com>

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