

TECHNICAL DATA

Fluke 107 Digital Multimeter/i400E Clamp Kit



Key features

Fluke 107 Palm-sized Digital Multimeter

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

Fluke i400E AC Current Clamp

- 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?
- 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

Product overview: Fluke 107 Digital Multimeter/i400E Clamp Kit

The Fluke 107 digital multimeter is made to fit the way you work! It is designed to fit in the palm of your hand and go with you no matter where your job takes you.

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.

Specifications: Fluke 107 Digital Multimeter/i400E Clamp Kit

Fluke 107 Palm-sized Digital Multimeter

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])

Accuracy specifications			
	Range	Resolution	Accuracy
AC volts (40 Hz to 500Hz) ¹	6.000 V	0.001 V	1.0% + 3
	60.00 V	0.01 V	
	600.0 V	0.1 V	
DC volts	6.000 V	0.001 V	0.5% + 3
	60.00 V	0.01 V	
	600.0 V	0.1 V	
AC millivolts	600.0 mV	0.1 mV	3.0% + 3
Diode test ²	2.000 V	0.001 V	10%
Resistance (Ohms)	400.0 Ω	0.1 Ω	0.5% + 3
	4.000 k Ω	0.001 k Ω	0.5% + 2
	40.00 k Ω	0.01 k Ω	0.5% + 2
	400.0 k Ω	0.1 k Ω	0.5% + 2
	4.000 M Ω	0.001 M Ω	0.5% + 2
	40.00 M Ω	0.01 M Ω	1.5% + 3
Capacitance ³	50.00 nF	0.01 nF	2% + 5
	500.0 nF	0.1 nF	2% + 5
	5.000 μ F	0.001 μ F	5% + 5
	50.00 μ F	0.01 μ F	5% + 5
	500.0 μ F	0.1 μ F	5% + 5
	1000 μ F	1 μ F	5% + 5
Frequency ⁴ Hz (10 Hz – 100 kHz)	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	
Duty cycle ⁴	1% to 99%	0.1%	1% typical ⁵

AC current (40 Hz to 200 Hz)	4.000 A 10.00 A	0.001 A 0.01 A	1.5% + 3	
DC Current	4.000 A 10.00 A	0.001 A 0.01 A	1.5% + 3	
<p>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 50 nF range). ⁴All AC, Hz, and Duty cycle are specified from 1% to 100% of range. Inputs below 1% of range are not specified. ⁵Typical means when the frequency is at 50 Hz or 60 Hz and the Duty cycle is between 10% and 90%</p>				
Function	Overload protection	Input impedance (Nominal)	Common mode rejection ratio	Normal mode rejection ratio
AC Volts	600 V ¹	>10 MO <100 pF ²	>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 ¹	>10 MO <100 pF	>100 dB at dc, 50 Hz or 60 Hz	>60 dB at 50 Hz or 60 Hz
<p>¹ 6 x 105 V Hz Max ² For mV (AC), input impedance is approximately 1 MO.</p>				
General specifications				
Maximum voltage between any terminal and earth ground		600 V		
Display (LCD)		6000 counts, updates 3/sec		
Baery type		2 AAA, NEDA 24A, IEC LR03		
Baery 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 MO 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		11A, 1000V Fast Fuse, Fluke specified part only		
Size (H x W x L)		142 x 69 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) ¹
¹ 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.	

Fluke i400E AC Current Clamp

Electrical specifications	
AC current range	1 A to 400 A
Output signal 1	mV/A ac
Accuracy	2.0% \pm 5 digits (45 Hz to 65 Hz) 2.5% \pm 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 A to 400 A
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 53 °C =75% at 30 °C to 54 °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
EMI, RFI, EMC	IEC/EN 61326-1
Dimensions (H x W x D)	146 x 62 x 34 mm
Weight	150 g

Ordering information



Fluke 107/i400E Kit

Includes:

- Fluke 107 Palm-sized Digital Multimeter
- Fluke i400E AC Current Clamp
- TI75 Hard Point Test Lead Set
- Smart Strap



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

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04/2025

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