

TECHNICAL DATA

Fluke 317/319 Clamp Meters











Key features

The two models are economic, compact and offer a range of special features:

- Unique 40A high-precision low current measurement--0.01A high-resolution, 1.6% high-precision measurement
- The clamps are slim, lightweight, and portable, making them ideal for use in small, confined spaces
- The large backlight display facilitates readings in dark environments
- Starting current (inrush) functionality (319) allows measurement of the starting current of electrical and lighting equipment, for example. (319)
- Current frequency measurement
- Precision down to 0.01A and 0.1V
- 1000A/600A AC/DC current measurement (319/317)
- 600V AC/DC voltage measurement
- 4000Ω resistance measurement
- Continuity beeper
- Auto off function enhances battery life, meaning the instrument can work when you need it screen store 'hold' function for capturing a measurement result on the screen
- One year warranty

Product overview: Fluke 317/319 Clamp Meters

The Fluke 317 and 319 are designed with ergonomic concepts, shaped to fit your hand and to access tight spots easily. These small and rugged clamp meters are ideally suited for current measurements up to 1000 A (319) in tight cable



compartments. The Fluke 317 and 319 also offer AC/DC current measurements and has a higher resolution for loads below 40 A. In addition to a compact package with a strong feature set, the Fluke 319 also equip with In-rush current and Frequency functions for testing motors, lighting, etc.

Specifications: Fluke 317/319 Clamp Meters

General specifications				
Digital display		6000 count resolution		
Low baery Indication		Displays a signal when the baeries are below their required voltage		
Power source		Three AAA IEC LR03 baeries		
Clamp opening size		1.45 in (37 mm)		
Jaw diameter		1.45 in (37 mm)		
Dimensions	/L ~ \\	9.21 in x 2.95 in x 1.37 in		
Dimensions (L x W x H)		(234.0 mm x 75.0 mm x 34.8 mm)		
Weight		Approximately 13.5 oz (384 g) (baeries included)		
Auto range		Available in Ohms		
		CE		
Safety		EN/IEC 61010-1 and IEC 61010-2-032		
		Measurement Category: 600V CAT III		
317 Electric	cal specifications			
	Range		40.00 A, 600.0 A	
	Resolution		0.01 A, 0.1 A	
			1.6% ±6 digit (50-60 Hz) {40 A}	
C A C	A		2.5% ±8 digit (60-500 Hz) {40 A}	
Current AC	Accuracy		1.5% ±5 digit (50-60 Hz) {600 A}	
			2.5% ±5 digit (60-500 Hz) {600 A}	
	Crest Factor add 2	2% into spec for CF > 2	3.0 Max @ 500 A, 2.5 Max @ 600 A	
	AC response		rms	
	Range		40.00 A, 600.0 A	
Current DC	Resolution		0.01 A, 0.1 A	
			1.6% ±6 digit (40 A)	
	Accuracy		1.5% ±5 digit (600 A)	
Voltage AC	Range		600.0 V	
	Resolution		0.1 V	
	Accuracy		1.5% ±5 digit (20-500Hz)	
	AC response		rms	



Accuracy 1% ±4 digit		Range		600.0 V	
Range 400.0 Ω, 4000 Ω	Voltage DC	Resolution	0.1 V		
Resistance Resolution 0.1 Ω, 1 Ω Accuracy 1% ±5 digit Continuity Integration time N/A Inrush Integration time N/A Range N/A Frequency Accuracy N/A Trigger Level N/A Current AC Range 40.00 A, 600.0 A, 1000 A Resolution 0.01 A, 0.1 A, 1 A 1.69 ±6 digit (50-60 Hz) (40 A) 2.59 ±8 digit (60-500 Hz) (40 A) 2.59 ±5 digit (60-500 Hz) (600/1000 A) 2.59 ±5 digit (60-500 Hz) (600/1000 A) 2.59 ±5 digit (60-500 Hz) (600/1000 A) AC response rms Range 40.00 A, 600.0 A, 1000 A 40.00 A, 600.0 A, 1000 A 1.000 A Accuracy 1.69 ±6 digit (40 A) 1.59 ±5 digit (60-7000 A) 1.59 ±5 digit (60-7000 A) Accuracy 1.59 ±5 digit (60-7000 A)		Accuracy	1% ±4 digit		
Accuracy 1% ±5 digit		Range	400.0 Ω, 4000 Ω		
Continuity □ 30 Ω Inrush Integration time N/A Range N/A Accuracy N/A Trigger Level N/A Current AC Range 40.00 A, 600.0 A, 1000 A Resolution 0.01 A, 0.1 A, 1 A 1.6% ±6 dight (50-60 Hz) (40 A) 2.5% ±8 dight (60-500 Hz) (40 A) 1.5% ±5 dight (50-60 Hz) (600/1000 A) 2.5% ±5 dight (60-500 Hz) (600/1000 A) Crest Factor add 2% into spec for CF > 2 3.0 Max @ 500 A, 2.5 Max @ 600 A, 1.4 Max @ 1000 A AC response rms Range 40.00 A, 600.0 A, 1000 A Accuracy 1.5% ±5 dight (40 A) 1.5% ±5 dight (600/1000 A) 1.5% ±5 dight (600/1000 A) Resolution 0.1 V Accuracy 1.5% ±5 dight (20-500Hz) AC response rms Range 600.0 V Resolution 0.1 V AC response rms Range 600.0 V Response rms Range 600.0 V Response rms Range	Resistance	Resolution	0.1 Ω, 1 Ω		
Inrush Integration time N/A		Accuracy	1% ±5 digit		
Range	Continuity	Δ 30 Ω			
Frequency Accuracy	Inrush	Integration time		N/A	
Trigger Level N/A 319 Electrical specifications Range 40.00 A, 600.0 A, 1000 A Resolution 0.01 A, 0.1 A, 1 A 1.6% ±6 digit (50-60 Hz) {40 A} 2.5% ±5 digit (60-500 Hz) {600/1000 A} Crest Factor add 2% into spec for CF > 2 3.0 Max @ 500 A, 2.5 Max @ 600 A, 1.4 Max @ 1000 A AC response rms Range 40.00 A, 600.0 A, 1000 A Resolution 0.01 A, 0.1 A, 1 A Accuracy 1.6% ±6 digit (40 A) 1.5% ±5 digit (60-500 Hz) {600/1000 A} Resolution 0.01 A, 0.1 A, 1 A 1.6% ±6 digit (40 A) 1.5% ±5 digit (600/1000 A) 1.5% ±5 digit (600/1000 A) Resolution 0.1 V Accuracy 1.5% ±5 digit (20-500Hz) AC response rms Range 600.0 V Resolution 0.1 V AC response rms Range 600.0 V Resolution 0.1 V AC response rms Range 600.0 V Resolution 0.1 V AC response rms		Range	N/A		
Range	Frequency	Accuracy	N/A		
Range		Trigger Level		N/A	
Resolution 0.01 A, 0.1 A, 1 A	319 Electric	cal specifications			
Current AC Accuracy 1.6% ±6 digit (50-60 Hz) {40 A} 2.5% ±8 digit (60-500 Hz) {40 A} 1.5% ±5 digit (60-500 Hz) {600/1000 A} 2.5% ±5 digit (60-500 Hz) {600/1000 A} 3.0 Max @ 500 A, 2.5 Max @ 600 A, 1.4 Max @ 1000 A 4.00 A, 600.0 A, 1000 A 5.00 A, 600.0 A, 1000 A 6.00 A, 60		Range	40.00 A, 600.0 A,	40.00 A, 600.0 A, 1000 A	
Current AC Accuracy 2.5% ±8 digit (60-500 Hz) {40 A} 1.5% ±5 digit (50-60 Hz) {600/1000 A} 2.5% ±5 digit (60-500 Hz) {600/1000 A} 2.5% ±5 digit (60-500 Hz) {600/1000 A} 2.5% ±5 digit (60-500 Hz) {600/1000 A} 3.0 Max @ 500 A, 2.5 Max @ 600 A, 1.4 Max @ 1000 A Fms 40.00 A, 600.0 A, 1000 A Resolution Accuracy 1.5% ±5 digit (600/1000 A) Resolution Accuracy		Resolution	0.01 A, 0.1 A, 1 A	0.01 A, 0.1 A, 1 A	
Current AC Accuracy 1.5% ±5 digit (50-60 Hz) {600/1000 A} 2.5% ±5 digit (60-500 Hz) {600/1000 A} 2.5% ±5 digit (60-500 Hz) {600/1000 A} Current DC Range 40.00 A, 600.0 A, 1000 A Resolution 0.01 A, 0.1 A, 1 A 1.6% ±6 digit (40 A) 1.5% ±5 digit (600/1000 A) Range 600.0 V Accuracy 1.5% ±5 digit (20-500Hz) AC response Range 600.0 V Voltage DC Resolution 0.1 V			1.6% ±6 digit (50-60 Hz) {40 A}		
1.5% ±5 digit (50-60 Hz) {600/1000 A} 2.5% ±5 digit (60-500 Hz) {600/1000 A} 3.0 Max @ 500 A, 2.5 Max @ 600 A, 1.4 Max @ 1000 A AC response	Current AC	Accuracy	2.5% ±8 digit (60-500 Hz) {40 A}		
Crest Factor add 2% into spec for CF > 2 3.0 Max @ 500 A, 2.5 Max @ 600 A, 1.4 Max @ 1000 A	current	/ recurred	1.5% ±5 digit (50-60 Hz) {600/1000 A}		
AC response rms Range 40.00 A, 600.0 A, 1000 A Resolution 0.01 A, 0.1 A, 1 A 1.6% ±6 digit (40 A) 1.5% ±5 digit (600/1000 A) Resolution 0.1 V Accuracy 1.5% ±5 digit (20-500Hz) AC response rms Range 600.0 V Voltage DC Resolution 0.1 V			2.5% ±5 digit (60-500 Hz) {600/1000 A}		
Current DC Range 40.00 A, 600.0 A, 1000 A Resolution 0.01 A, 0.1 A, 1 A Accuracy 1.6% ±6 digit (40 A) 1.5% ±5 digit (600/1000 A) Range 600.0 V Resolution 0.1 V Accuracy 1.5% ±5 digit (20-500Hz) AC response rms Range 600.0 V Voltage DC Resolution		Crest Factor add 2% into spec for CF > 2	3.0 Max @ 500 A, 2.5 Max @ 600 A, 1.4 Max @ 1000 A		
Current DC Resolution 0.01 A, 0.1 A, 1 A Accuracy 1.6% ±6 digit (40 A) 1.5% ±5 digit (600/1000 A) Range 600.0 V Resolution 0.1 V Accuracy 1.5% ±5 digit (20-500Hz) AC response rms Range 600.0 V Voltage DC Resolution		AC response	rms		
Current DC Accuracy 1.6% ±6 digit (40 A) 1.5% ±5 digit (600/1000 A) 1.5% ±5 digit (600/1000 A) Voltage AC Range 600.0 V Resolution 0.1 V Accuracy 1.5% ±5 digit (20-500Hz) AC response rms Range 600.0 V Voltage DC Resolution 0.1 V		Range	40.00 A, 600.0 A, 1000 A		
Accuracy 1.6% ±6 digit (40 A)	Current DC	Resolution	0.01 A, 0.1 A, 1 A		
1.5% ±5 digit (600/1000 A)	Current DC	Accuracy	1.6% ±6 digit (40 A)		
Voltage AC Resolution 0.1 V Accuracy 1.5% ±5 digit (20-500Hz) AC response rms Range 600.0 V Voltage DC Resolution 0.1 V		Accuracy	1.5% ±5 digit (600/1000 A)		
Voltage AC Accuracy 1.5% ±5 digit (20-500Hz) AC response rms Range 600.0 V Voltage DC Resolution 0.1 V		Range	600.0 V		
Accuracy 1.5% ±5 digit (20-500Hz) AC response rms Range 600.0 V Voltage DC Resolution 0.1 V	Voltage AC	Resolution	0.1 V		
Range 600.0 V Voltage DC Resolution 0.1 V	voitage AC	Accuracy	1.5% ±5 digit (20-500Hz)		
Voltage DC Resolution 0.1 V		AC response	rms		
		Range	600.0 V		
Accuracy 1% ±4 digit	Voltage DC	Resolution	0.1 V		
		Accuracy	1% ±4 digit	1% ±4 digit	



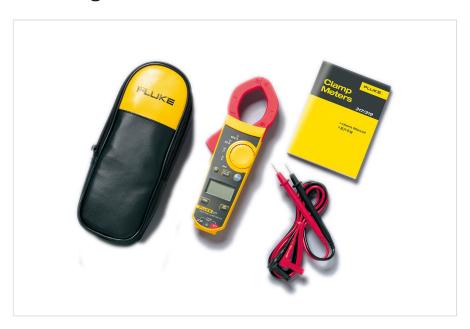
Resistance	Dange	400.0 Ω	
	Range	4000 Ω	
	Resolution	0.1 Ω	
	Resolution	1 Ω	
	Accuracy	1% ±5 digit	
Continuity	□ 30 Ω		
Inrush	Integration time	100 ms	
Frequency	Range	5.0 - 500.0 Hz	
	Accuracy	0.5% ±5 digit	
	Trigger Level	10 - 100 Hz 🛮 5 A, 5 - 10 Hz, 100 - 500 Hz 🗎 10 A	

The accuracy specifications aply at 73 °F \pm 41 °F (23 °C \pm 5 °C) Below 64 °F and above 82 °F (18 °C and above 28 °C) accuracy degrades at (0.1) times specification per °C. True rms for ac V and ac A accuracy is specified from 5% to 100% of range.

Environmental specifications		
Operating temperature	14°F to 122°F (-10 °C to 50 °C)	
Storage temperature	-40 °F to 140 °F (-40 °C to 60 °C)	
	Non-condensing (< 50 °F) (< 10 °C)	
	90% RH (50 °F to 86 °F) (10 °C to 30 °C)	
Operating humidity	75% RH (86 °F to 104 °F) (30 °C to 40 °C)	
	45% RH (104 °F to 122 °F) (40 °C to 50 °C)	
	(Without condensation)	
Operating altitude	1 mile (2000 meters) above mean sea level	
Storage altitude	7 miles (12,000 meters) above mean sea level	
IP Rating	IP40	
Vibration requirements	Random MIL-PRF-28800F Class 2, 5-500 Hz, 30 minutes per axis	
Drop test requirements	3 ft (1 m) drop test, six sides, oak floor	
EMI, RFI, EMC	Instrument unspecified for use in EMC field □ 0.1 V/m	
	0.1x (specified accuracy)/ °C	
Temperature coefficients	(<64 °F or > 82° F)	
	(<18 °C or > 28 °C)	



Ordering information



Fluke 317/319

The Fluke 317 and 319 are designed with ergonomic concepts, shaped to fit your hand and to access tight spots easily.

The Meter ships with:

- Test Leads
- Soft Carrying Case
- Three AAA batteries (Installed)
- 317/319 User Manual

These small and rugged clamp meters are ideally suited for current measurements up to 1000 A (319) in tight cable compartments. The Fluke 317 and 319 also offer AC/DC current measurements and has a higher resolution for loads below 40 A. In addition to a compact package with a strong feature set, the Fluke 319 also equip with In-rush current and Frequency functions for testing motors, lighting, etc



$\textbf{Fluke}. \ \textit{Keeping your world up and running.} \\ \textbf{@}$

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