



Fluke a3000 FC Wireless AC Current Clamp Kit Data Sheet

Fluke 3000 FC Series Wireless Multimeter

* For all specifications: accuracy is specified for one year after calibration, at operating temperatures of 18 °C to 28 °C, with relative humidity at 0 % to 90 %. Accuracy specifications take the form of \pm ([% of Reading] + [Number of least significant digits]).

Detailed Specifications

AC Voltage

	600.0 mV / 0.1 mV
	6.000 V / 0.001 V
Range ¹ / Resolution	60.00 V / 0.01 V
	600.0 V / 0.1 V
	1000 V / 1 V
Accuracy ^{2 3 4}	45 Hz to 500 Hz 1.0 % + 3
	500 Hz to 1 kHz 2.0% + 3

¹ All AC voltage ranges are specified from 1 % of range to 100 % of range.

² Crest factor of ≤ 3 at full scale up to 500 V, decreasing linearly to crest factor < 1.5 at 1000 V.

³ For non-sinusoidal waveforms, add \pm (2 % of reading + 2 % full scale) typical, for crest factor up to 3.

⁴ Do not exceed 107 V-Hz.

DC Voltage, Continuity, Resistance, Diode Test and Capacitance

Function

mV	Range / Resolution	600.0 mV / 0.1 mV
	Accuracy	0.09 % + 2
		6.000 V / 0.001 V
	Range / Resolution	60.00 V / 0.01 V
V		600.0 V / 0.1 V
		1000 V / 1 V
	Accuracy	0.09 % + 2
		0.15 % + 2
	Range / Resolution	600 Ω / 1 Ω
)))	Accuracy	Meter beeps at $< 25 \Omega$, beeper detects opens or shorts of 250 μs or longer.
Ω	Range / Resolution	600.0 Ω / 0.1 Ω
		6.000 k Ω / 0.001 k Ω

		60.00 k Ω / 0.01 k Ω 60.00 k Ω / 0.1 k Ω 600.0 k Ω / 0.001 M Ω 50.00 M Ω / 0.01 M Ω
	Accuracy	0.5 % + 2 0.5 % + 1 1.5 % + 3
Diode test	Range / Resolution	2.000 V / 0.001 V
	Accuracy	1 % + 2
μ F	Range / Resolution	1000 nF / 1 nF 10.00 μ F / 0.01 μ F 100.0 μ F / 0.1 μ F 9999 μ F ¹ / 1 μ F
	Accuracy	1.2 % + 2 10 % typical

¹ In the 9999 μ F range for measurements to 1000 μ F, the measurement accuracy is 1.2 % + 2.

AC and DC Current

Function

mA AC (45 Hz to 1 kHz)	Range¹ / Resolution	60.00 mA / 0.01 mA 400.0 mA ³ / 0.1 mA
	Accuracy	1.5 % + 3
mA DC ²	Range¹ / Resolution	60.00 mA / 0.01 mA 400.0 mA ³ / 0.1 mA
	Accuracy	0.5 % + 3

¹ All AC current ranges are specified from 5 % of range to 100 % of range.

² Input burden voltage (typical): 400 mA input 2 mV/mA.

³ 400.0 mA accuracy specified up to 600 mA overload.

Frequency

	99.99 Hz / 0.01 Hz 999.9 Hz / 0.1 Hz 9.999 kHz / 0.001 kHz 99.99 kHz / 0.01 kHz
Range / Resolution	
Accuracy ¹	0.1 % + 1

¹ Frequency is specified up to 99.99 kHz in volts and up to 10 kHz in amps.

Input Characteristics

Function	Overload protection	Input impedance (nominal)	Common mode rejection ratio (1 k Ω unbalance)	Normal mode rejection
$\overline{\overline{V}}$	1100 V RMS	> 10 M Ω < 100 pF	> 120 dB at DC, 50 Hz or 60 Hz	> 60 dB at 50 Hz or 60 Hz
$\overline{\overline{V}}$	1100 V RMS	> 10 M Ω < 100	> 60 dB, DC to 60 Hz	> 60 dB at 50

		pF			Hz or 60 Hz
\bar{V}	1100 V RMS	> 10 M Ω < 100 pF	> 120 dB at DC, 50 Hz or 60 Hz		> 60 dB at 50 Hz or 60 Hz
Open circuit test voltage			Full scale voltage		Typical short circuit current
			To 6 M Ω	50 M Ω	Typical short circuit current
\bar{V}	1100 V RMS	< 2.7 V DC	< 0.7 V DC	< 0.9 V DC	< 350 mA
\bar{V}	1100 V RMS	< 2.7 V DC	2.000 V DC		< 1.1 mA
mA Function					
Overload protection	Fused, 44/100 A, 1000 V FAST Fuse				
Overload	600 mA overload for 2 minutes maximum, 10 minutes rest minimum				
MIN/MAX Recording Accuracy					
DC functions	The specified accuracy of the measurement function ± 12 counts for changes > 350 mS in duration.				
AC functions	The specified accuracy of the measurement function ± 40 counts for changes > 900 mS in duration.				
General Specifications					
Maximum voltage between any terminal and earth ground	1000 V DC or AC RMS				
Ω fuse protection from A inputs	0.44 A (44/100 A, 440 mA), 1000 V FAST Fuse, Fluke specified part only				
	Update rate	4/sec			
Display (LCD)	Volts, amps, ohms	6000 counts			
	Frequency	10,000 counts			
	Capacitance	1,000 counts			
Battery type	Three AA Alkaline batteries, NEDA 15A IEC LR6				
Battery life	250 hours minimum				
RF communications	2.4 GHZ ISM Band				
	Open air, unobstructed				Up to 20m
RF communication range	Obstructed, sheetrock wall				Up to 6.5m
	Obstructed, concrete wall, or steel electrical enclosure				Up to 3.5m
Temperature	Operating	-10 °C to 50 °C			
	Storage	-40 °C to 60 °C			
Temperature coefficient	0.1 X (specified accuracy) /°C (<18 °C or >28 °C)				
Relative humidity	0 % to 90 % (0 °C to 35 °C)				
	0 % to 75 % (35 °C to 40 °C)				

	0 % to 45 % (40 °C to 50 °C)
Altitude	Operating 2,000 m Storage 12,000 m
Electromagnetic compatibility EMI, RFI, EMC, RF	EN 61326-1:2006, EN 61326-2-2:2006 ETSI EN 300 328 V1.7.1:2006, ETSI EN 300 489 V1.8.1:2008, FCC Part 15 Subpart C Sections 15.207, 15.209, 15.249 FCCID : FCC: T68-FDMMBLE IC: 6627A-FDMMBLE
Safety compliance	ANSI/ISA 61010-1 / (82.02.01): 3rd edition CAN/CSA-C22.2 No 61010-1-12: 3rd edition UL 61010-1: 3rd edition IEC/EN 61010-1:2010
Certifications	CSA, FCC, CE
Ingress Protection (IP) rating	IP54
Pollution Degree	2
Size (H x W x L)	4.75 cm x 9.3 cm x 20.7 cm (1.87 in x 3.68 in x 8.14 in)
Weight	340 g (12 oz)
Note: Not compatible with Fluke CNX test tools	

Fluke a3000 FC Wireless AC Current Clamp Module

Specifications

Range	0.5 A to 400.0 A
Resolution	0.1 A
Accuracy	400.0 A: 2 % ± 5 digits (10 Hz to 100 Hz) 2.5 % ± 5 digits (100 Hz to 500 Hz)
Inrush	Max displayed reading 999.9A 3 at 500 A
Crest factor (50 Hz/60 Hz)	2.5 at 600 A 1.42 at 1000 A add 2 % for C.F. > 2
LCD w/backlight	3½ digits
Log rate/interval	1 sec minimum/adjustable by PC
Battery type	2 AA, NEDA 15 A, IEC LR6
Battery life	400 hours
Memory	Record up to 65,000 readings
RF communications	2.4 GHZ ISM Band
RF communication range	Open air, unobstructed Up to 20 m Obstructed, sheetrock wall Up to 6.5 m

	Obstructed, concrete wall or steel electrical enclosure	Up to 3.5 m
Operating temperature	-10 °C to +50 °C	
Storage temperature	-40 °C to +60 °C	
Temperature coefficient	Add 0.1 x (specified accuracy) / °C (< 18 °C or > 28 °C)	
Operating humidity	90 % at 35 °C	
	75 % at 40 °C	
	45 % at 50 °C	
Altitude	Operating	2,000 m
	Storage	12,000 m
EMC	EN 61326-1:2006	
Safety compliance	IEC 61010-1, 600 V CAT III, 3rd edition Pollution Degree 2	
Safety rating	CAT III 600 V	
Certifications	CSA, CE, FCC: T68-FBLE IC: 6627A-FBLE	
Ingress Protection (IP) rating	IP30	
Pollution Degree	2	
Jaw opening	34 mm (1.33 in)	
Size (HxWxD)	20.3 cm x 7.49 cm x 3.55 cm (8 in x 2.95 in x 1.4 in)	
Weight	.22 kg (8 oz)	
Note: Not compatible with Fluke CNX test tools		

Fluke v3000 FC Wireless AC Voltage Module

Accuracy is specified as \pm ([% of reading] + [number of least significant digits]). All ranges are autoranging. Accuracy is specified from 5 % to 100 % of the range obtained by autoranging, from 18 °C to 28 °C.

Specifications

Range ¹ / Resolution	6.000 V / 0.001 V	
	60.00 V / 0.01 V	
	600.0 V / 0.1 V	
	1000 V / 1 V	
Accuracy ^{2 3 4}	45 Hz to 500 Hz	1.0 % + 3
	500 Hz to 1 kHz	2.0% + 3

¹ All AC voltage ranges are specified from 1 % of range to 100 % of range.

² Crest factor of ≤ 3 at full scale up to 500 V, decreasing linearly to crest factor < 1.5 at 1000 V.

³ For non-sinusoidal waveforms, add \pm (2 % of reading + 2 % full scale) typical, for crest factor up to 3.

⁴ Do not exceed 107 V-Hz.

General Specifications

LCD w/backlight	3½ digits, 6000 counts, updates 4/sec
Battery type	2 AA, NEDA 15 A, IEC LR6
Battery life	400 Hours
Memory	Record up to 65000 readings
RF communications	2.4 GHZ ISM Band
RF communication range	Open air, unobstructed Up to 20 m
	Obstructed, sheetrock wall Up to 6.5 m
	Obstructed, concrete wall or steel electrical enclosure Up to 3.5 m
Operating temperature	-10 °C to +50 °C
Storage temperature	-40 °C to +60 °C
Temperature coefficient	0.1 X (specified accuracy)/°C (< 18 °C or > 28 °C)
Operating humidity	90 % at 35 °C, 45 % at 40 °C, 45 % at 50 °C
Altitude	Operating 2,000 m
	Storage 12,000 m
EMC	EN 61326-1:2006
Safety compliance	ANSI/ISA 61010-1 / (82.02.01) 3rd edition
	CAN/CSA-C22.2 No 61010-1-12 3rd edition
	UL 61010-1 3rd edition
	IEC/EN 61010-1 2010
Safety rating	CAT IV 600 V, CAT III 1000 V
Certifications	CSA, CE, FCC: T68-FBLE IC: 6627A-FBLE
Ingress Protection (IP) rating	IP42
Pollution Degree	2
Size (HxWxD)	16.5 cm x 6.35 cm x 1.4 cm (6.5 in x 2.5 in x 1.4 in)
Weight	.22 kg (8 oz)
Note: Not compatible with Fluke CNX test tools	