

TECHNICAL DATA

# Fluke CNX™ 3000 Wireless Multimeter



## Key features

The CNX 3000 Wireless Multimeter has all the essentials for convenient test and measurement troubleshooting.

- AC and DC voltage measurements to 1000V
- AC and DC current with 0.01 mA resolution
- Continuity, resistance, diode test, capacitance and frequency measurements
- MIN/MAX Recording
- CAT III 1000 V, Cat IV 600 V; IP54

Plus, the CNX wireless enabled modules measure AC voltage, AC current and temperature, which display on the CNX Wireless Multimeter. Choose a standard clamp or flexible clamp to measure AC current. Mix and match modules to suit your unique measurement needs. Read the primary measurement on the main display, and up to three modules at any one time. Modules are available separately or as part of CNX kits.

## Product overview: Fluke CNX™ 3000 Wireless Multimeter

### Work Faster, Safer and Easier with CNX Wireless Test Tools

Fluke's CNX Wireless Test Tools put tools, not your body, near live electrical panels. It's simple. Connect the remote modules, whether they are voltage modules, current clamps, flexible current loops or thermometers, and read the results on the CNX 3000 Wireless Multimeter from a safe distance. You can display the meter measurement, plus readings from up to 3 wireless modules.



Timing is everything when trying to find an intermittent problem and the hard part is, it doesn't always show up when you have your meter connected. We've solved that problem with CNX – leave your CNX remote modules connected to log measurements and walk away to address other issues. You can then download the data for further analysis.

**Work Safely Near Electrical Panels While Wearing Less PPE**

Personal protective equipment (PPE) can save your life, but it's bulky, hot and hard to work in. With CNX, there's no need to work in front of live open panels or moving/hazardous machinery.

Picture having the ability to access live readings without being exposed to the live panel. It's easy. Just deenergize the cabinet, open the panel while wearing PPE and connect your CNX modules. Close the cabinet, reenergize and let the CNX multimeter work, reducing the risk of arc flash by separating yourself from hazardous measurement situations.

**Testing 3-Phase is Now Faster and Cheaper**

When your cabinet is deenergized, attach a CNX current clamp to each phase. Close, reenergize and start taking readings. What used to take hours and use costly equipment can be done in minutes with an affordable CNX wireless system.

**Take 3-Phase Measurements in 1/3 the Time. Add your laptop and go from logging to analysis and diagnosis**

You can solve problems faster by seeing live measurements from multiple test points on a single screen. With a CNX wireless test tool, you can:






- Take 3-phase measurements in 1/3 the time
- Add your laptop and go from logging to analysis and diagnosis
- Record over time using the CNX wireless modules and monitor circuit load changes for an hour, a shift or a week
- Use the CNX wireless USB adapter to collect logged data from remote modules by walking past a working module and downloading logged data
- Perform for analysis with your PC and the CNX wireless test tool software. View data or graphs to see problems easily on the computer display

**Specifications: Fluke CNX™ 3000 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 ± ([ % of Reading ] + [ Number of least significant digits ]).

Detailed Specifications		
AC Voltage		
Range <sup>1</sup> / Resolution	600.0 mV / 0.1 mV 6.000 V / 0.001 V 60.00 V / 0.01 V 600.0 V / 0.1 V 1000 V / 1 V	
Accuracy <sup>2, 3</sup>	45 Hz to 500 Hz	1.0 % + 3
	500 Hz to 1 kHz	2.0 % + 3
<sup>1</sup> All AC voltage ranges are specified from 1 % of range to 100 % of range. <sup>2</sup> Crest factor of ≤ 3 at full scale p to 500 V, decreasing linearly to crest factor < 1.5 at 1000 V. <sup>3</sup> For non-sinusoidal waveforms, add -(2 % of reading + 2 % full scale) typical, for crest factor up to 3.		
DC Voltage, Continuity, Resistance, Diode Test and Capacitance		

Function		
mV	<b>Range 1 / Resolution</b>	600.0 mV / 0.1 mV
	Accuracy	0.09 % + 2
V	<b>Range 1 / Resolution</b>	6.000 V / 0.001 V 60.00 V / 0.01 V 600.0 V / 0.1 V 1000 V / 1 V
	Accuracy	0.09 % + 2 0.15 % + 2
)))	<b>Range 1 / Resolution</b>	600 Ω / 1 Ω
	Accuracy	Meter beeps at < 25 Ω, beeper detects opens or shorts of 250 μs or longer.
Ω	<b>Range 1 / Resolution</b>	600.0 Ω / 0.1 Ω 6.000 kΩ / 0.001 kΩ 60.00 kΩ / 0.01 kΩ 60.00 kΩ / 0.1 kΩ 600.0 kΩ / 0.001 MΩ 50.00 MΩ / 0.01 MΩ
	Accuracy	0.5 % + 2 0.5 % + 1 1.5 % + 3
Diode test	<b>Range 1 / Resolution</b>	2.000 V/0.001 V
	Accuracy	1 % + 2
μF	<b>Range 1 / Resolution</b>	1000 nF / 1 nF 10.00 μF / 0.01 μF 100.0 μF / 0.1 μF 9999 μF <sup>1</sup> / 1 μF
	Accuracy	1.2 % + 2 10 %
<sup>1</sup> In the 9999 μF range for measurements to 1000 μF, the measurement accuracy is 1.2 % + 2.		
AC and DC Current		
Function		
mA AC (45 Hz to 1 kHz)	<b>Range 1 / Resolution</b>	60.00 mA / 0.01 mA 400.0 mA <sup>3</sup> / 0.1 mA
	Accuracy	1.5 % + 3
mA DC <sup>2</sup>	<b>Range 1 / Resolution</b>	60.00 mA / 0.01 mA 400.0 mA / 0.1 mA
	Accuracy	0.5 % + 3
<sup>1</sup> All AC current ranges are specified from 5 % of range to 100 % of range. <sup>2</sup> Input burden voltage (typical): 400 mA input 2 mV/mA. <sup>3</sup> 400.0 mA accuracy specified up to 600 mA overload.		
Frequency		

	<b>Range <sup>1</sup> / Resolution</b>	99.99 Hz / 0.01 Hz 999.9 Hz / 0.1 Hz 9.999 kHz / 0.001 kHz 99.99 kHz / 0.01 kHz
	Accuracy	0.1 % + 1
<sup>1</sup> Frequency is specified up to 99.99 kHz in volts and up to 10 kHz in amps.		
Input Characteristics		
Function		
	<b>OverloadProtection</b>	1100 V RMS
	Input Impedance (nominal)	> 10 MΩ < 100 pF
	Common Mode Rejection Ratio (1 kΩ unbalance)	> 120 dB at DC, 50 Hz or 60 Hz
	Normal Mode Rejection	> 60 dB at 50 Hz or 60 Hz
	<b>OverloadProtection</b>	1100 V RMS
	Input Impedance (nominal)	> 10 MΩ < 100 pF
	Common Mode Rejection Ratio (1 kΩ unbalance)	> 60 dB, DC to 60 Hz
	<b>OverloadProtection</b>	1100 V RMS
	Input Impedance (nominal)	> 10 MΩ < 100 pF
	Common Mode Rejection Ratio (1 kΩ unbalance)	> 120 dB at DC, 50 Hz or 60 Hz
	Normal Mode Rejection	> 60 dB at 50 Hz or 60 Hz
<b>Open circuit test voltage</b>		
	<b>OverloadProtection</b>	1100 V RMS
	Input Impedance (nominal)	< 2.7 V DC
	Full scale	<b>To 6 MΩ:</b> < 0.7 V DC <b>50 MΩ:</b> < 0.9 V DC
	Typical short circuit current	< 350 mA
	<b>OverloadProtection</b>	1100 V RMS
	Input Impedance (nominal)	< 2.7 V DC
	Full scale	<b>To 6 MΩ:</b> 2.000 V DC
	Typical short circuit current	< 1.1 mA

mA	<b>Overload Protection</b>	Fused, 44/100 A, 1000 V FAST Fuse
	Overload	600 mA overload for 2 minutes maximum, 10 minutes rest minimum
<b>MIN/MAX Recording</b>		
DC functions	The specified accuracy of the measurement function $\pm 12$ counts for changes > 350 mS in duration	
AC functions	The specified accuracy of the measurement function $\pm 40$ counts for changes > 900 mS in duration	
<b>General Specifications</b>		
Maximum voltage between any terminal and earth ground	1000 V DC or AC RMS	
$\Omega$ fuse protection from A inputs	0.44 A (44/100 A, 440 mA), 1000 V FAST Fuse, Fluke specified part only	
Display (LCD)	Update rate: 4/sec 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	300 hours minimum	
Temperature	Operating: -10 °C to 50 °C Storage: -40 °C to 60 °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	
Temperature coefficient	0.1 X (specified accuracy) / °C (< 18 °C or > 28 °C)	
Wireless frequency	2.4 GHz ISM Band 20 meter range	
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)	
Safety standards	US ANSI: ANSI/ISA 61010-1 / (82.02.01): 3rd edition CSA: CAN/CSA-C22.2 No 61010-1-12: 3rd edition CE European: IEC/EN 61010-1:2010	
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 : T68-FWCS IC:6627A-FWCS	
Ingress Protection (IP) rating	IP54	

## Ordering information



### **CNX 3000**

Fluke CNX™ 3000 Wireless Multimeter

Includes:

- True RMS Wireless Multimeter
- TL175 Test Leads
- AC175 Alligator Clips