

TECHNICAL DATA

Fluke 377 FC Non-Contact Voltage True-rms AC/DC Clamp Meter with iFlex



Key features

- Measure voltage and current with your clamp jaw
- Faster, safer testing - all without touching a live wire - using FieldSense™ technology
- Complete 3-phase voltage and current tests in 3 quick steps

Product overview: Fluke 377 FC Non-Contact Voltage True-rms AC/DC Clamp Meter with iFlex

Voltage and current measurements with FieldSense™ technology

The Fluke 377 FC true-rms clamp meter uses FieldSense™ technology to make testing faster and safer, all without contacting a live conductor. You get accurate voltage and current measurements through the clamp jaw. Simply clip the black test lead to any electrical ground, put the clamp jaw around the conductor and see reliable, accurate voltage and current values on the display.

Measure extremely high current with iFlex® probe

Use the included iFlex flexible current probe to measure ac current as high as 2500 A. The iFlex probe provides access to large conductors in tight spaces.

Complete 3-phase measurements in quick, easy steps

- Complete 3-phase voltage and current tests in 3 easy steps
- Full set of phase-to-ground and phase-to-phase values calculated and shown on the meter
- Values are also displayed on your smart phone and saved to the cloud via Fluke Connect software
- Phase rotation auto-calculated and shown on the Fluke Connect software
- No more hand-written notes or complicated math.

Easy to see, easy to use with included tools

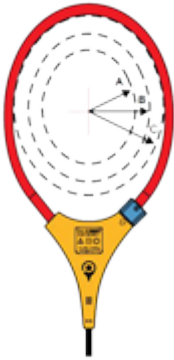
Your job will get easier when you use the 377 FC clamp meter. The display turns green when a stable FieldSense measurement is detected. Visual Continuity also provides a bright green screen for easy detection of continuity in noisy work areas.

Record, analyze, share results with Fluke Connect® software

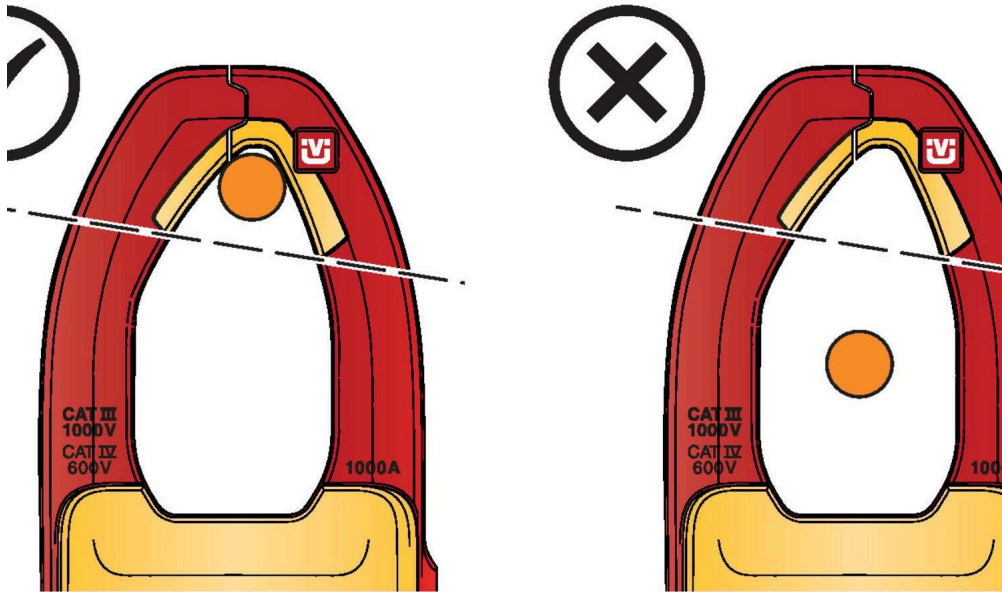
With Fluke Connect software you can remotely log, trend and monitor measurements to pinpoint intermittent faults. Fluke Connect also allows you to gather data as the basis for a preventive maintenance program.

Specifications: Fluke 377 FC Non-Contact Voltage True-rms AC/DC Clamp Meter with iFlex

General specifications		
General Maximum Voltage between any Terminal and Earth Ground		1000 V
Battery	Type	2 AA IEC LR6 alkaline
	Life	200 hour
Display		Dual readout
Automatic Power Off		20 minutes
Electrical		
AC Current: Jaw		
Range	999.9 A	
Resolution	0.1 A	
Accuracy	2 % ±5 digits (45 Hz to 66 Hz)	
Crest Factor (50/60 Hz)	3 @ 500 A 2.5 @ 600 A 1.42 @ 1000 A Add 2 % for C.F. >2	
AC Current: Flexible Current Probe		
Range	2500 A	
Resolution	1 A (≤2500 A) 0.1 A (≤999.9 A)	
Accuracy	3 % ±5 digits (5 Hz to 500 Hz)	

Crest Factor (50/60Hz)	3.0 at 1100 A 2.5 at 1400 A 1.42 at 2500 A Add 2 % for C.F. >2			
Position Sensitivity				
	Distance from Optimum	i2500-10 Flex	i2500-18 Flex	Error
	A	0.5 in (12.7 mm)	1.4 in (35.6 mm)	± 0.5 %
	B	0.8 in (20.3 mm)	2.0 in (50.8 mm)	± 1.0 %
	C	1.4 in (35.6 mm)	2.5 in (63.5 mm)	± 2.0 %
Measurement uncertainty assumes centralized primary conductor at optimum position, no external electrical or magnetic field, and within operating temperature range.				
DC Current				
Range	999.9 A			
Resolution	0.1 A			
Accuracy	2 % ±5 digits ¹			
^[1] When using the ZERO function to compensate for offsets				
AC Voltage: Field Sense				
Range	1000 V			
Resolution	1 V (≤1000V)			
Accuracy	≤4/0 AWG	3 % ±5 digits (45 Hz to 66 Hz)		
	≥4/0 AWG	5 % ±5 digits (45 Hz to 66 Hz)		

Position wire as close as possible to jaw opening (see illustration).



AC Voltage: Test Leads

Range	600.0 V 1000 V
Resolution	0.1 V (≤ 600.0 V) 1 V (≤ 1000 V)
Accuracy	1 % ± 5 digits (20 Hz to 500 Hz)

DC Voltage

Range	600.0 V 1000 V
Resolution	0.1 V (≤ 600.0 V) 1 V (≤ 1000 V)
Accuracy	1 % ± 10 digits

mV dc

Range	500.0 mV
Resolution	0.1 mV
Accuracy	1 % ± 5 digits

Amps Frequency: Jaw

Range	45 Hz to 66 Hz
Resolution	0.1 Hz
Accuracy	0.5 % ± 5 digits
Trigger Level	5 Hz to 10 Hz, ≥ 10 A 10 Hz to 100 Hz, ≥ 5 A 100 Hz to 500 Hz, ≥ 10 A

Amps Frequency: Flexible Current Probe

Range	5.0 Hz to 500.0 Hz
Resolution	0.1 Hz
Accuracy	0.5 % ± 5 digits
Trigger Level	5 Hz to 20 Hz, ≥ 25 A 20 Hz to 100 Hz, ≥ 20 A 100 Hz to 500 Hz, ≥ 25 A
Resistance	
Range	60.00 k Ω 6000 Ω 600.0 Ω
Resolution	0.1 Ω (≤ 600.0 Ω) 1 Ω (≤ 6000 Ω) 10 Ω (≤ 60.00 k Ω)
Accuracy	1 % ± 5 digits
Capacitance	
Range	1000 μ F
Resolution	0.1 μ F (≤ 100.0 μ F) 1 μ F (≤ 1000 μ F)
Accuracy	1 % ± 4 digits
Mechanical	
Size (L x W x H)	274 mm x 86 mm x 47 mm
Weight (with Batteries)	463 g
Jaw Opening	34 mm
Flexible Current Probe Diameter	7.5 mm
Flexible Current Probe Cable Length (head to electronics connector)	1.8 m
Rogowski Coil Length	450 mm
Environmental	
Operating Temperature	-10 °C to 50 °C
Storage Temperature	-40 °C to 60 °C
Operating Humidity (without condensation)	Non condensing (< 10 °C) ≤ 90 % RH (10 °C to 30 °C) ≤ 75 % RH (30 °C to 40 °C) ≤ 45 % RH (40 °C to 50 °C)
Temperature Coefficients	Add 0.1 x specified accuracy for each degree C > 28 °C or < 18 °C
Ingress Protection	IEC 60529: IP30 (jaw closed)
Operating Altitude	2000 m
Storage Altitude	12 000 m

Electromagnetic Compatibility (EMC)	International	IEC 61326-1: Portable Electromagnetic Environment IEC 61326-2-2, CISPR 11: Group 1, Class B
	<i>Group 1: Equipment has intentionally generated and/or uses conductively-coupled radio frequency energy that is necessary for the internal function of the equipment itself.</i>	
	<i>Class B: Equipment is suitable for use in domestic establishments and in establishments directly connected to a low voltage power supply network which supplies buildings used for domestic purposes. Emissions that exceed the levels required by CISPR 11 can occur when the equipment is connected to a test object.</i>	
	Korea (KCC)	Class A equipment (Industrial Broadcast & Communications Equipment)
	<i>Class A: Equipment meets requirements for industrial electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and not to be used in homes.</i>	
USA (FCC)	47 CFR 15 subpart B. This product is considered an exempt device per clause 15.103.	
Safety		
General	IEC 61010-1: Pollution degree 2	
Measurement	IEC 61010-2-032: CAT III 1000 V / CAT IV 600 V IEC 61010-2-033: CAT III 1000 V / CAT IV 600 V	
Current Clamp for Leakage Current Measurements	IEC 61557-13: Class 2, ≤30 A/m	
Wireless Radio		
Radio Frequency Certification	FCC ID: T68-FBLE IC:6627A-FBLE	
Frequency Range	2405 MHz to 2480 MHz	
Output Power	<100 mW	
Radio Frequency Data	Radio Frequency Data For Class A Devices SIMPLIFIED EU DECLARATION OF CONFORMITY Hereby, Fluke declares that the radio equipment contained in this Product is in compliance with Directive 2014/53/EU. The full text of the EU declaration is available at the following internet address: https://media.fluke.com/ef664f31-68ef-40d9-9ca7-b10800bf192b_original%20file.pdf .	

Ordering information



FLUKE-377 FC

Part#: 5111781

UPC#: 095969916608

Includes:

- Fluke 377 FC Non-Contact Voltage True-RMS AC/DC Clamp Meter
- TL224 Test Leads
- TP175 TwistGuard™ Test Probes
- AC285 black grounding clip (1 only)
- i2500-18 iFlex® Flexible Current Probes 18 inch (48 cm)
- TPAK ToolPak™ Magnetic Meter Hanger
- Premium carrying case
- Quick reference guide

Optional accessories

Fluke TL175 TwistGuard™ Test Leads

Description

Simply twist to change the exposed probe tip length.

Fluke Pack30 Professional Tool Backpack

The Fluke Pack30 tool backpack gives you a comfortable hands-free experience vs. traditional tool belts that put all the weight on your lower back.

Fluke TL220 SureGrip™ Industrial Test Lead Set

This test lead set with test probes works in multiple electrical applications. SureGrip™ feature is designed to do your work with comfort.

Fluke AC220 SureGrip™ Alligator Clips

SureGrip™ accessories are designed to improve steadiness in slippery hands.



Preventive maintenance simplified. Rework eliminated.

Save time and improve the reliability of your maintenance data by wirelessly syncing measurements using the Fluke Connect® system.

- Eliminate data-entry errors by saving measurements directly from the tool and associating them with the work order, report or asset record.
- Maximize uptime and make confident maintenance decisions with data you can trust and trace.
- Access baseline, historical and current measurements by asset.
- Move away from clipboards, notebooks and multiple spreadsheets with a wireless one-step measurement transfer.
- Share your measurement data using ShareLive™ video calls and emails.

Find out more at flukeconnect.com



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