

## TECHNICAL DATA

# Fluke 377 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 Non-Contact Voltage True-RMS AC/DC Clamp Meter with iFlex

Voltage and current measurements with FieldSense™ technology

The Fluke 377 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

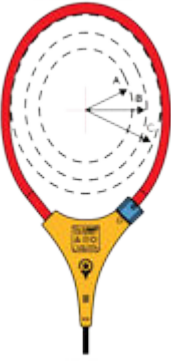
- Complete 3-phase voltage and current tests in 3 easy steps
- Full set of phase-to-ground and phase-to-phase values calculated and shown on the meter
- No more hand-written notes or complicated math

Easy to see, easy to use with included tools

Your job will get easier when you use the 377 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

## Specifications: Fluke 377 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

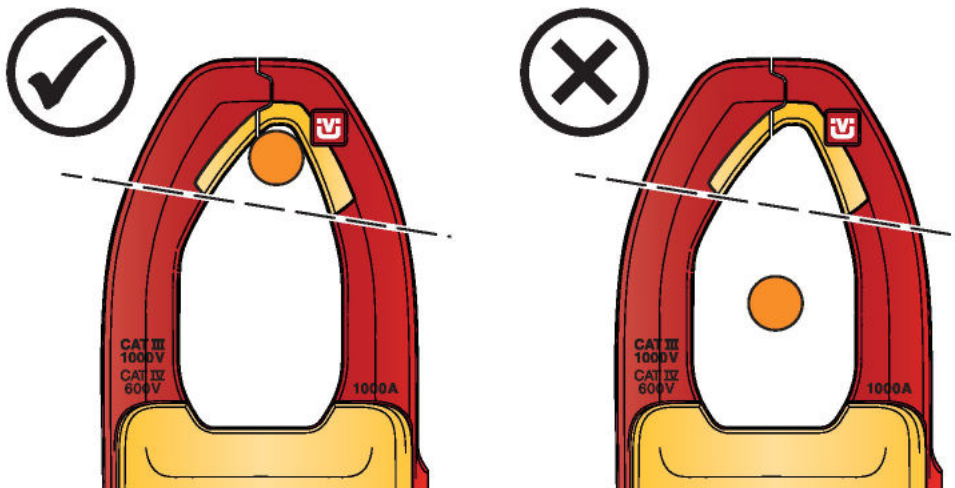
Range	999.9 A
Resolution	0.1 A
Accuracy	2 % ±5 digits <sup>1</sup>

<sup>[1]</sup>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 ( $\leq 600.0$ V) 1 V ( $\leq 1000$ V)
Accuracy	1 % $\pm 5$ digits
mV dc	
Range	500.0 mV
Resolution	0.1 mV
Accuracy	1 % $\pm 5$ digits
Amps Frequency: Jaw	
Range	45 Hz to 66 Hz
Resolution	0.1 Hz
Accuracy	0.5 % $\pm 5$ digits
Trigger Level	5 Hz to 10 Hz, $\geq 10$ A 10 Hz to 100 Hz, $\geq 5$ A 100 Hz to 500 Hz, $\geq 10$ A
Amps Frequency: Flexible Current Probe	
Range	5.0 Hz to 500.0 Hz
Resolution	0.1 Hz
Accuracy	0.5 % $\pm 5$ digits
Trigger Level	5 Hz to 20 Hz, $\geq 25$ A 20 Hz to 100 Hz, $\geq 20$ A 100 Hz to 500 Hz, $\geq 25$ A
Resistance	
Range	60.00 k $\Omega$ 6000 $\Omega$ 600.0 $\Omega$
Resolution	0.1 $\Omega$ ( $\leq 600.0$ $\Omega$ ) 1 $\Omega$ ( $\leq 6000$ $\Omega$ ) 10 $\Omega$ ( $\leq 60.00$ k $\Omega$ )
Accuracy	1 % $\pm 5$ digits
Capacitance	
Range	1000 $\mu$ F
Resolution	0.1 $\mu$ F ( $\leq 100.0$ $\mu$ F) 1 $\mu$ F ( $\leq 1000$ $\mu$ F)
Accuracy	1 % $\pm 4$ 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
	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.	
	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.	
	Korea (KCC)	Class A equipment (Industrial Broadcast & Communications Equipment)
	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.	
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	

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