FLUKE®

377/377 FC
378/378 FC

Clamp Meter

Product Specifications

September 2020 Rev. A
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Specifications

General

Maximum Voltage between any Terminal and Earth Ground ..... 1000 V

Battery

- Type ..... 2 AA IEC LR6 alkaline
- Life ..... 200 hr

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

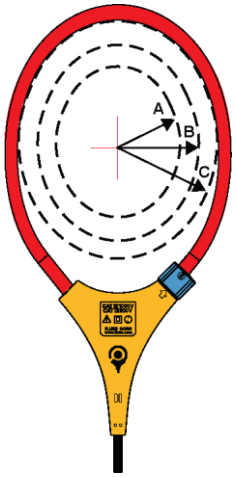
Range ..... 2500 A

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.

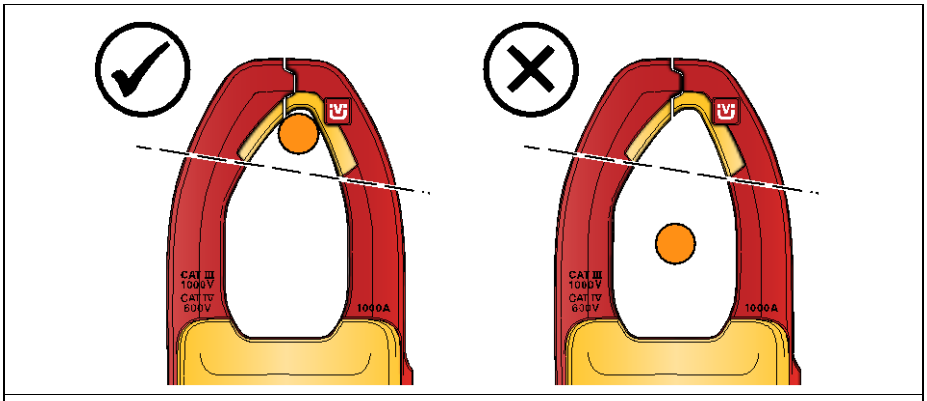
DC Current

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: FieldSense™

Range ..... 1000 V
Resolution ..... 1 V (≤1000 V)
Accuracy
≤4/0 AWG ..... 3 % ±5 digits (45 Hz to 66 Hz)
>4/0 AWG ..... 5 % ±5 digits (45 Hz to 66 Hz)

Position Sensitivity



Note: Position the wire as close as possible to the jaw opening.

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 % ±5 digits

mV dc

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

Amps Frequency: Jaw

Range ..... 5.0 Hz to 500.0 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 kΩ
6000 Ω
600.0 Ω

Resolution ..... 0.1 Ω (≤600.0 Ω)
1 Ω (≤6000 Ω)
10 Ω (≤60.00 kΩ)

Accuracy ..... 1 % ±5 digits

Capacitance

Range ..... 1000 µF

Resolution ..... 0.1 µF (≤100.0 µF)
1 µF (≤1000 µF)

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 A

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 A: Equipment is suitable for use in all establishments other than domestic and those directly connected to a low-voltage power supply network that supplies buildings used for domestic purposes. There may be potential difficulties in ensuring electromagnetic compatibility in other environments due to conducted and radiated disturbances.

Caution: This equipment is not intended for use in residential environments and may not provide adequate protection to radio reception in such environments.

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

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	Go to www.fluke.com and search for “Radio Frequency Data for Class A” (PN 4333628)

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: www.fluke.com/declaration-of-conformity