

## Fluke 355/353 True-rms 2000 A Clamp Meters

### Technical Data

High current and a large jaw, make these clamps well suited for industrial and utility applications

Confidently take reliable readings with the true-rms, Fluke 355/353 Clamp Meters; the tools of choice for high-current measurements up to 2000 A. The extra-wide jaw easily clamps around large conductors typically found in high-current applications. The rugged design and CAT IV 600 V, CAT III 1000 V ratings, add an extra element of protection when taking high-powered measurements.

Accurate peak measurements can be taken using the in-rush current mode, ideal for motors and inductive loads. The 355 also measures voltage and resistance, making this the most versatile tool for utilities, electrical contractors, and industrial service technicians.



- Reliably handle a wide range of high-current applications with 2000 A ac + dc true-rms, 1400 A ac, and 2000 A dc
- The large 58 mm (2.3 in) jaw capacity is suitable for large, or multiple conductors
- CAT IV 600 V, CAT III 1000 V rating for added user protection
- In-rush current measurement captures 'power-on' surge current with accuracy and repeatability
- High voltage measurement of 1000 V ac + dc true-rms, 600 V ac, and 1000 V dc allows users to perform multiple tests with only one tool (355 only)
- Resistance to 400 k $\Omega$  coupled with a continuity beeper, provide the convenience of a multimeter (355 only)
- Accurately measure frequency up to 1 kHz for optimum troubleshooting
- Quickly analyze readings using the MIN, MAX, and AVG functions
- A large backlit display allows for easy visibility in low-lit areas
- Use the display hold feature to capture readings even when the display cannot be viewed
- Use the low-pass filter to smooth out noisy loads and stabilize readings



## Specifications

### Electrical specifications

#### Current measurement dc and ac 10 Hz to 100 Hz

| Range                  | Resolution | Accuracy, A           | Trigger Level for Inrush | Trigger Level for Hz Filter OFF | Trigger Level for Hz Filter ON |
|------------------------|------------|-----------------------|--------------------------|---------------------------------|--------------------------------|
| 40 A                   | 10 mA      | 1.5 % rdg + 15 digits | 0.50 A                   | 2.50 A                          | 0.50 A                         |
| 400 A                  | 100 mA     | 1.5 % rdg + 5 digits  | 5.0 A                    | 2.5 A                           | 2.5 A                          |
| 2000 A;<br>1400 ac rms | 1 A        | 1.5 % rdg + 5 digits  | 5 A                      | 8 A                             | 8 A                            |

#### Crest Factor (50/60 Hz)

| Range               | Crest Factor*           |
|---------------------|-------------------------|
| 40 A                | 2 @ 33 A, 2.4 @ 27 A    |
| 400 A               | 2 @ 330 A, 2.4 @ 270 A  |
| 2000 A; 1400 ac rms | 2 @ 1000 A, 2.4 @ 833 A |

\*Add 2 % to error spec for CF > 2

#### Current measurement ac 100.1 Hz to 1 kHz

| Range                  | Resolution | Accuracy > 10 A       | Trigger Level for Inrush | Trigger Level for Hz Filter OFF | Trigger Level for Hz Filter ON |
|------------------------|------------|-----------------------|--------------------------|---------------------------------|--------------------------------|
| 40 A                   | 10 mA      | 3.5 % rdg + 15 digits | 0.50 A                   | 2.50 A                          | 0.50 A                         |
| 400 A                  | 100 mA     | 3.5 % rdg + 5 digits  | 5.0 A                    | 2.5 A                           | 2.5 A                          |
| 2000 A;<br>1400 ac rms | 1 A        | 3.5 % rdg + 5 digits  | 5 A                      | 8 A                             | 8 A                            |

#### Voltage measurement (355 only) dc and ac 10 Hz to 100 Hz

600 V and 1000 V ranges have 10 % over range to 660 V and 1100 V respectively.

| Range        | Resolution | Accuracy            | Trigger Level for Hz Filter OFF | Trigger Level for Hz Filter ON |
|--------------|------------|---------------------|---------------------------------|--------------------------------|
| 4 V          | 1 mV       | 1 % rdg + 10 digits | 0.050 V                         | 0.050 V                        |
| 40 V         | 10 mV      | 1 % rdg + 5 digits  | 0.25 V                          | 0.25 V                         |
| 400 V        | 100 mV     | 1 % rdg + 5 digits  | 6 V                             | 6 V                            |
| 600 V ac rms | 1 V        | 1 % rdg + 5 digits  | 6 V                             | 6 V                            |
| 1000 V dc    | 1 V        | 1 % rdg + 5 digits  | N/A                             | N/A                            |

#### Voltage measurement (355 only) ac 100.1 Hz to 1 kHz

600 V and 1000 V ranges have 10 % over range to 660 V and 1100 V respectively.

| Range        | Resolution | Accuracy            | Trigger Level for Hz Filter OFF | Trigger Level for Hz Filter ON |
|--------------|------------|---------------------|---------------------------------|--------------------------------|
| 4 V          | 1 mV       | 3 % rdg + 10 digits | 0.050 V                         | 0.050 V                        |
| 40 V         | 10 mV      | 3 % rdg + 5 digits  | 0.25 V                          | 0.25 V                         |
| 400 V        | 100 mV     | 3 % rdg + 5 digits  | 6 V                             | 6 V                            |
| 600 V ac rms | 1 V        | 3 % rdg + 5 digits  | 6 V                             | 6 V                            |

#### Ohms measurement (355 only)

| Range  | Resolution | Accuracy         |
|--------|------------|------------------|
| 400 Ω  | 0.1 Ω      | 1.5 % + 5 digits |
| 4 kΩ   | 1 Ω        | 1.5 % + 5 digits |
| 40 kΩ  | 10 Ω       | 1.5 % + 5 digits |
| 400 kΩ | 100 Ω      | 1.5 % + 5 digits |

**Continuity beeper (355 only)**

On at  $\leq 30 \Omega$   
Off at  $\geq 100 \Omega$

**Frequency measurement**

|                              |                                                    |
|------------------------------|----------------------------------------------------|
| Measurement range            | 5.0 Hz to 1 kHz                                    |
| Resolution                   | 0.1 Hz (15 Hz to 399.9 Hz); 1 Hz (400 Hz to 1 kHz) |
| Accuracy – 5.0 Hz to 100 Hz  | 0.2 % + 2 counts                                   |
| Accuracy – 100.1 Hz to 1 kHz | 0.5 % + 5 counts                                   |
| Trigger level                | Refer to current and voltage tables                |

**General specifications**

|                                                  |                                                 |
|--------------------------------------------------|-------------------------------------------------|
| Batteries                                        | Six 1.5 V AA NEDA 15 A or IEC LR6               |
| Battery life (with typical usage, backlight off) | 100 hours                                       |
| Test leads                                       | Rated to 1000 V                                 |
| Weight                                           | .814 kg (1.8 lb)                                |
| Jaw size                                         | 58 mm (2.28 in)                                 |
| Dimensions (LxWxD)                               | 300 mm x 98 mm x 52 mm (12 in x 3.75 in x 2 in) |
| Safety rating                                    | IEC 61010-2-032, 600 V CAT IV, 1000 V CAT III   |

**Environmental specifications**

|                          |                                                                                                                    |
|--------------------------|--------------------------------------------------------------------------------------------------------------------|
| Operating temperature    | 32 °F to + 122 °F (0 °C to +50 °C)                                                                                 |
| Storage temperature      | -4 °F to 140 °F (-20 °C to +60 °C)                                                                                 |
| Operating humidity       | 0 to 95 % (non-condensing)                                                                                         |
| Operating altitude       | 2000 m                                                                                                             |
| Storage altitude         | 10,000 m                                                                                                           |
| IP rating                | 42 (indoor use only)                                                                                               |
| Drop test requirements   | 1 m                                                                                                                |
| EMI, RFI, EMC            | FCC part 15, IEC/EN 61326-1:1997 class B, IEC/EN 61326:1997 3V/m, performance criteria B, EN61325                  |
| Temperature coefficients | Current: 0.1 % of reading per °C outside 22 °C to 24 °C<br>Voltage: 0.1 % of reading per °C outside 22 °C to 24 °C |

**Ordering information:**

**Fluke-353 AC/DC True-rms Clamp Meter, 2000 A, Amps only**  
**Includes:** C43 Soft Carrying Case, 6 AA batteries, and users manual

**Fluke-355 AC/DC True-rms Clamp Meter, 2000 A**  
**Includes:** C43 Soft Carrying Case, 6 AA batteries, TL224 1.5 m Silicone Rubber Test Leads, TP2 Test Probes, AC285 Alligator Clips, and users manual



**Fluke-355**



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