

# FLUKE®

# Fluke 117

## Electrician's Multimeter

with Non-Contact Voltage

## Technical Data



### Compact true-rms meter for commercial applications

The Fluke 117 is the ideal meter for demanding settings like commercial buildings, hospitals and schools. The 117 includes integrated non-contact voltage detection to help get the job done faster.

#### Features include:

- **VoltAlert™ technology** for non-contact voltage detection
- **AutoVolt** automatic ac/dc voltage selection
- LoZ: helps prevent false readings due to ghost voltage
- Large white LED backlight to work in poorly lit areas
- True-rms for accurate measurements on non-linear loads
- Measures 20 A (30 seconds momentary; 10 A continuous)
- Resistance, continuity, frequency and capacitance
- Min/Max/Average to record signal fluctuations
- Compatible with optional magnetic hanger (ToolPak™) for hands free operation
- CAT III 600 V safety rated

#### General specifications

Accuracy is specified for 1 year after calibration, at operating temperatures of 18 °C to 28 °C, with relative humidity at 0 % to 95 %.

The accuracy specifications take the form of:  
 $\pm ( [ \% \text{ of reading} ] + [ \text{counts} ] )$

|   |   |
|---|---|
| Maximum voltage between any terminal and earth ground | 600 V   |
| Surge protection                                      | 6 kV peak per IEC 61010-1 600 V CAT III, Pollution Degree 2 |
| Fuse for A input                                      | 11 A, 1000 V FAST Fuse (Fluke PN 803293)                    |
| Display   | Digital: 6,000 counts, updates 4/sec                        |
| Bar graph   | 33 segments, updates 32/sec                                 |
| Operating temperature                                 | -10 °C to + 50 °C   |
| Storage temperature                                   | -40 °C to + 60 °C   |
| Battery   | 9 volt Alkaline, NEDA 1604A/IEC 6LR61                       |
| Battery life  | 400 hours typical, without backlight                        |

Actual size



## Accuracy specifications

| Measurement                            | Range  | Resolution | Accuracy ± ([% of reading] + [counts])                                     |
|--|--|------------|--|
| DC millivolts                          | 600.0 mV                                     | 0.1 mV     | 2.0 % + 3  |
| DC volts                               | 6.000 V                                      | 0.001 V    |  |
|  | 60.00 V                                      | 0.01 V     |  |
|  | 600.0 V                                      | 0.1 V      |  |
| Auto volts                             | 600.0 V                                      | 0.1 V      | 2.0 % + 3 (dc, 45 Hz to 500 Hz)<br>4.0 % + 3 (500 Hz to 1 kHz)             |
| AC millivolts <sup>1</sup><br>true-rms | 600.0 mV                                     | 0.1 mV     | 1.0 % + 3 (dc, 45 Hz to 500 Hz)<br>2.0 % + 3 (500 Hz to 1 kHz)             |
| AC volts <sup>1</sup> true-rms         | 6.000 V                                      | 0.001 V    | 1.0 % + 3 (45 Hz to 500 Hz)<br>2.0 % + 3 (500 Hz to 1 kHz)                 |
|  | 60.00 V                                      | 0.01 V     |  |
|  | 600.0 V                                      | 0.1 V      |  |
| Continuity                             | 600 Ω  | 1 Ω        | Beeper on < 20 Ω off > 250 Ω; detects opens or shorts of 500 μs or longer. |
| Ohms                                   | 600.0 Ω                                      | 0.1 Ω      | 0.9 % + 2  |
|  | 6.000 kΩ                                     | 0.001 kΩ   | 0.9 % + 1  |
|  | 60.00 kΩ                                     | 0.01 kΩ    |  |
|  | 600.0 kΩ                                     | 0.1 kΩ     |  |
|  | 6.000 MΩ                                     | 0.001 MΩ   |  |
|  | 40.00 MΩ                                     | 0.01 MΩ    | 1.5 % + 2  |
| Diode test                             | 2.000 V                                      | 0.001 V    | 0.9 % + 2  |
| Capacitance                            | 1000 nF                                      | 1 nF       | 1.9 % + 2  |
|  | 10.00 μF                                     | 0.01 μF    |  |
|  | 100.0 μF                                     | 0.1 μF     |  |
|  | 9999 μF                                      | 1 μF       | 1.9 % + 2  |
|  | 100 μF to 1000 μF                            |            |  |
|  | > 1000 μF                                    |            |  |
| Lo-Z capacitance                       | 1 nF to 500 μF                               |            | 10 % + 2 typical   |
| AC amps true-rms<br>(45 Hz to 500 Hz)  | 6.000 A                                      | 0.001 A    | 1.5 % + 3  |
|  | 10.00 A                                      | 0.01 A     |  |
|  | 20 A continuous overload for 30 seconds max. |            |  |
| DC amps                                | 6.000 A                                      | 0.001 A    | 1.0 % + 3  |
|  | 10.00 A                                      | 0.01 A     |  |
|  | 20 A continuous overload for 30 seconds max. |            |  |
| Hz (V or A input) <sup>2</sup>         | 99.99 Hz                                     | 0.01 Hz    | 0.1 % + 2  |
|  | 999.9 Hz                                     | 0.1 Hz     |  |
|  | 9.999 kHz                                    | 0.001 kHz  |  |
|  | 50.00 kHz                                    | 0.01 kHz   |  |

**Notes:**

<sup>1</sup> All ac voltage ranges are specified from 1 % to 100 % of range. Because inputs below 1 % of range are not specified, it is normal for this and other true-rms meters to display non-zero readings when the test leads are disconnected from a circuit or are shorted together. For volts, crest factor of ≤ 3 at 4000 counts, decreasing linearly to 1.5 at full scale. AC volts is ac-coupled. Auto-V LoZ, and ac mV are dc-coupled.

<sup>2</sup> Frequency is ac coupled, 5 Hz to 50 kHz for ac voltage. Frequency is dc coupled, 45 Hz to 5 kHz for ac current.

## Ordering information

**Fluke-117** Electrician's Multimeter with Non-Contact Voltage

**Included**

TL75 Test leads, holster, User's manual and 9V battery (installed).



**Fluke.** Keeping your world up and running.

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## TECHNICAL DATA

# Fluke C11XT Protective EVA Hard Tool Case



## Key features

- Durable 240 x 155 mm EVA foam case to protect your tools and accessories
- Zipped pocket with ample space for multiple accessories
- Mesh pocket to fit smaller multimeters and other tools
- Carrying handle and zippers for convenience
- One-year warranty

## Product overview: Fluke C11XT Protective EVA Hard Tool Case

The Fluke C11XT Protective Hard Case is designed to carry most smaller multimeters, process meters, temperature meters and similarly-sized products. The case is made of high quality 600D EVA foam and is meant to fit both tools and accessories. The durable exterior is meant to protect your tools more than a soft case would. When opened up, the case features a zipped pocket on the left for accessories and a mesh pocket on the right for multimeters and other tools.

## What Products Will Fit?

- [Fluke 175 True RMS Digital Multimeter](#)
- [Fluke 177 True RMS Digital Multimeter](#)
- [Fluke 179 True-RMS Digital Multimeter](#)
- [Fluke 323 True RMS Clamp Meter](#)
- [Fluke 324 True RMS Clamp Meter](#)
- [Fluke 325 True RMS Clamp Meter](#)
- [Fluke 113 Digital Multimeter](#)



- [Fluke 114 Electrical Multimeter](#)
- [Fluke 115 Digital Multimeter](#)
- [Fluke 116 Digital HVAC Multimeter](#)
- [Fluke 117 Electrician's Multimeter with Non-Contact Voltage](#)

Cases As Tough As Your Fluke Tools

## Specifications: Fluke C11XT Protective EVA Hard Tool Case

| Key Features         |   |
|----------------------|---|
| Dimensions (HxWxD)   | 240 x 155 x 105 mm (9.4 x 6.1 x 4.1 in) |
| Material             | EVA foam                                |
| Storage compartments | One zippered pocket and one mesh pocket |

## Ordering information



### **Fluke C11XT Protective EVA Hard Tool Case**

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Includes:

- Fluke C11XT Protective EVA Hard Tool Case
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TECHNICAL DATA

# Fluke TPAK ToolPak™ Magnetic Meter Hanger



## Key features

- Strong, rare-earth magnet hanger strap with Fluke durability
- Hang with magnet or hook strap for non-magnetic surfaces
- Solves any hanging and positioning problem you may face
- Easily work hands-free

## Product overview: Fluke TPAK ToolPak™ Magnetic Meter Hanger

The Fluke TPAK ToolPak™ Magnetic Meter Hanger allows you to hang your meter on nails, hooks, and pipes so you can take hands-free measurements. Always demand the best; use the original TPAK Meter hanging kit with its unique rare-earth magnet for superior gripping strength to ensure your tools don't slide or fall.

### Hanging options for any jobsite

Hang your meter in a variety of ways for convenient hands-free operation, solve any hanging and positioning problems you may face. Use the hook and loop strap to wrap around a pole or pipe and hang your meter. Use the magnet to throw your meter on a panel door while you work the test leads to take a measurement quickly and safely.

## Ordering information



### TPAK

Kit includes:

- 9 inch hook and loop strap
- Tapered hook and loop strap
- Universal hanger clip
- Hook hanger for non magnetic surfaces
- Strong magnet





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