

# Fluke 115 Multimeter

## Technical Data



Actual size



### Compact true-rms meter for field service technicians

The Fluke 115 is the solution for a wide variety of electrical and electronic testing applications. This true-rms meter provides easy one-handed operation in a compact package.

#### Features include:

- Resistance, continuity, frequency, capacitance, and diode test
- Measures 10 A (20 A overload for 30 seconds)
- Large white LED backlight to work in poorly lit areas
- Compact ergonomic design for one-handed operation
- Compatible with optional magnetic hanger (ToolPak™)
- True-rms for accurate measurements on non-linear loads
- Min/Max/Average with elapsed time to record signal fluctuations
- 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 90 %.

The accuracy specifications take the form of:  
± ( [ % of reading ] + [ 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                        |

## Accuracy specifications

| Measurement                            | Range                             | Resolution | Accuracy ± ([% of reading] + [counts])                                  |
|--|-----------------------------------|------------|---|
| DC millivolts                          | 600.0 mV                          | 0.1 mV     | 0.5 % + 2   |
| DC volts                               | 6.000 V                           | 0.001 V    | 0.5 % + 2   |
|  | 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 off > 250 ; 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   |   |
|  | 60.00 kΩ                          | 0.01 kΩ    |   |
|  | 600.0 kΩ                          | 0.1 kΩ     | 0.9 % + 1   |
|  | 6.000 MΩ                          | 0.001 MΩ   |   |
|  | 40.00 MΩ                          | 0.01 MΩ    | 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 overload for 30 seconds max. |            |   |
| DC amps                                | 6.000 A                           | 0.001 A    | 1.0 % + 3   |
|  | 10.00 A                           | 0.01 A     |   |
|  | 20 A 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 and ac mV is 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-115** Multimeter

**Included**

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



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

**Fluke Corporation**  
PO Box 9090, Everett, WA USA 98206

**Fluke Europe B.V.**  
PO Box 1186, 5602 BD  
Eindhoven, The Netherlands

**For more information call:**  
In the U.S.A. (800) 443-5853 or  
Fax (425) 446-5116  
In Europe/M-East/Africa (31 40) 2 675 200 or  
Fax (31 40) 2 675 222  
In Canada (800)-36-FLUKE or  
Fax (905) 890-6866  
From other countries +1 (425) 446-5500 or  
Fax +1 (425) 446-5116  
Web access: <http://www.fluke.com>

©2006-2009 Fluke Corporation.  
Specifications subject to change without notice.  
Printed in U.S.A. 2/2009 2634043 D-EN-N Rev C

**Modification of this document is not permitted without written permission from Fluke Corporation.**