



Fluke – 115 Digital Multimeters

Accessories – Test Equipment

Part No. 115

www.illuminoignis.co.uk

Product Details

The Fluke 115 technicians digital multimeter is the compact, general purpose troubleshooting tool for field service technicians. Its simple, one-handed operation and compact design meets the needs of a wide variety of field service technicians. It measures True RMS voltage and current with 6000 count resolution as well as resistance, continuity, frequency and capacitance for quick verifications.



Key Features

- Ideal for quick verifications and field service
- Presents a large white LED backlight for working in poorly lit areas
- Measures AC and DC voltage to 600V
- Measures AC and DC current to 10A (20 A overload for 30-seconds max)
- Measures resistance, continuity, frequency, and capacitance
- Provides Min/Max/Average with elapsed time to record signal fluctuations
- Comes with a holster with probe holders for easy storage
- Features a compact ergonomic design for one-handed operation
- Fits into optional ToolPakTM magnetic hanger for hands-free operation
- CAT III 600 V safety rated
- For field service technicians, basic electronic repair.

Accuracy is specified for 1 year after calibration, at operating temperatures of 18 °C to 28 °C, with relative humidity of 0 % to 90 %.

Technical Specifications

Maximum voltage (between any terminal and earth ground)	600 V rms
Safety	IEC 61010-1, Pollution Degree 2 IEC 61010-2-033 CAT III 600 V, 10 A EMC IEC 61326-1: Portable
Fuse for A input	11 A, 1000 V, IR 17 kA (Fluke PN 803293)
Display	Digital: 6,000 counts, updates 4/sec; Bar Graph: 33 segments, updates 32/sec
Temperature	
Operating	-10 °C to +50 °C
Storage	-40 °C to +60 °C

Humidity	0 % to 90 % to 35 °C; 75 % to 40 °C; 45 % to 50 °C
Temperature coefficient	0.1 x (specified accuracy/°C) (< 18 °C or > 28 °C)
Operating altitude	2,000 meters
Battery	9 Volt Alkaline (IEC 6LR61)
Battery life	400 hours typical, without backlight
Certifications	CE, CSA, RCM
IP rating (dust and water protection)	IP42


Illumino Ignis LtdTM

LIGHTING & FIRE DESIGN, SUPPLY & SUPPORT

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Accuracy specifications

Function	Range	Resolution	Accuracy ± ([% of Reading] + [Counts])	
DC millivolts	600.0 mV	0.1 mV	0.5 % + 2	
DC volts	6.000 V 60.00 V 600.0 V	0.001 V 0.01 V 0.1 V	0.5 % + 2	
			45 Hz to 500 Hz	500 Hz to 1 kHz
AC millivolts ¹ true-rms	600.0 V	0.1 V	1.0 % + 3	2.0 % + 3
AC volts ¹ true-rms	6.000 V 60.00 V 600.0 V	0.001 V 0.01 V 0.1 V	1.0 % + 3	2.0 % + 3
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 6.000 kΩ 60.00 kΩ 600.0 kΩ 6.000 MΩ 40.00 MΩ	0.1 Ω 0.001 kΩ 0.01 kΩ 0.1 kΩ 0.001 MΩ 0.01 MΩ	0.9 % + 2 0.9 % + 1 0.9 % + 1 0.9 % + 1 0.9 % + 1 5.0 % + 2	
Diode test	2.000 V	0.001 V	0.9 % + 2	
Capacitance	1000 nF 10.00 μF 100.0 μF 9999 μF –	1 nF 0.01 μF 0.1 μF 1 μF –	1.9 % + 2 1.9 % + 2 1.9 % + 2 100 μF to 1000 μF: 1.9 % + 2 > 1000 μF: 5 % + 20	

1 All ac ranges except Auto-V LoZ are specified from 1 % to 100 % of range. Auto-V LoZ is specified from 0.0 V. 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. For amps, crest factor of ≤ 3. AC volts is ac-coupled. Auto-V LoZ, ac mV, and ac amps are dc-coupled.

Function	Range	Resolution	Accuracy ± ([% of Reading] + [Counts])	
AC amps true-rms ¹ (45 Hz to 500 Hz)	6.000 A 10.00 A 20 A overload for 30 seconds maximum	0.001 A 0.01 A	1.5 % + 3	
DC amps	6.000 A 10.00 A 20 A overload for 30 seconds maximum	0.001 A 0.01 A	1.0 % + 3	
Hz (V or A input) ²	99.99 Hz 999.9 Hz 9.999 kHz 50.00 kHz	0.01 Hz 0.1 Hz 0.001 kHz 0.01 kHz	0.1 % + 2	
LoZ capacitance (power-up option)	1 nF to 500 μF		10 % + 2 typical	



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- 2 AC Volts Hz is ac-coupled and specified from 5 Hz to 50 kHz. AC Amps Hz is dc-coupled and specified from 45 Hz to 5 kHz. Amps input burden voltage (typical): 6 A input 2 mV/A, 10 A input 37 mV/A.
- 3 Frequency is ac-coupled, 45 Hz to 50 kHz.

Frequency counter sensitivity

Input range		Typical sensitivity (rms sine wave)			
		5 Hz to 45 Hz	45 Hz to 5 kHz	5 kHz to 10 kHz	10 kHz to 50 kHz
Volts AC	V 60 V 600 V	0.2 V 2 V 20 V	0.2 V to 0.3 V 2 V to 3 V 20 V to 30 V	0.3 V to 0.4 V 3 V to 4 V 30 V to 40 V	0.4 V to 1.0 V 4 V to 10 V 40 V to 100 V
AC Amps	6 A 10 A	N/A N/A	0.4 A 0.5 A	N/A N/A	N/A N/A

Input characteristics

Function	Input impedance (nominal)	Common mode rejection ratio (1 k Ω unbalanced)		Normal mode rejection
Volts AC	> 5 M Ω < 100 pF	> 60 dB at dc, 50 or 60 Hz		
Volts DC	> 10 M Ω < 100 pF	> 100 dB at dc, 50 or 60 Hz		> 60 dB at 50 or 60 Hz
Auto-V LoZ	~3 k Ω < 500 pF	> 60 dB at dc, 50 or 60 Hz		
	Open circuit test voltage	Full scale voltage		Short circuit current
Ohms	< 2.7 V dc	To 6.0 M Ω	40 M Ω	< 350 μ A
		< 0.7 V dc	< 0.9 V dc	
Diode test	< 2.7 V dc	2.000 V dc		< 1.2 mA