FLUKE®

General specifications

Fluke 3000 FC Series Wireless Multimeter



Contents

Detailed specifications (Not compatible with Fluke CNX test tools)

For all specifications: accuracy is specified for one year after calibration, at operating temperatures of 18 °C to 28 °C, with relative humidity at 0 % to 90 %. Accuracy specifications take the form of ± ([% of Reading] + [Number of least significant digits]).

AC voltage

Range[1]	Resolution	Accuracy[2,3,4]	
		45 Hz to 500 Hz	500 Hz to 1 kHz
600.0 mV	0.1 mV	1.0 % + 3	2.0 % + 3
6.000 V	0.001 V		
60.00 V	0.01 V		
600.0 V	0.1 V		
1000 V	1 V		

[1] All ac voltage ranges are specified from 1 % of range to 100 % of range.
[2] Crest factor of ≤ 3 at full scale up to 500 V, decreasing linearly to crest factor < 1.5 at 1000 V.
[3] For non-sinusoidial waveforms, add ± (2 % of reading + 2 % full scale) typical, for crest factor up to 3.
[4] Do not exceed 10^7 V-Hz.

DC voltage, continuity, resistance, diode test and capacitance

Function	Range	Resolution	Accuracy
mV	600.0 mV	0.1 mV	0.09 % + 2
V	6.000 V	0.001 V	0.09 % + 2
	60.00 V	0.01 V	
	600.0 V	0.1 V	
	1000 V	1 V	0.15 % + 2
Ω	600 Ω	1 Ω	Meter beeps at < 25 Ω, beeper detects opens or shorts of 250 µs or longer.
Ω	600.0 Ω	0.1 Ω	0.5 % + 2
	6.000 kΩ	0.001 kΩ	0.5 % + 1
	60.00 kΩ	0.01 kΩ	
	60.00 kΩ	0.1 kΩ	
	600.0 kΩ	0.001 MΩ	
	50.00 MΩ	0.01 MΩ	1.5 % + 3
Diode test	2.000 V	0.001 V	1 % + 2
µF	1000 nF	1 nF	1.2 % + 2
	10.00 µF	0.01 µF	
	100.0 µF	0.1 µF	
	9999 µF[1]	1 µF	10 % typical

[1] In the 9999 µF range for measurements to 1000 µF, the measurement accuracy is 1.2 % + 2.

AC and DC current

Function	Range[1]	Resolution	Accuracy
mA AC (45 Hz to 1 kHZ)	60.00 mA	0.01 mA	1.5 % + 3
	400.0 mA[3]	0.1 mA	
mA DC[2]	60.00 mA	0.01 mA	0.5 % + 3
	400.0 mA[3]	0.1 mA	

[1] All ac current ranges are specified from 5 % of range to 100 % of range.
[2] Input burden voltage (typical): 400 mA input 2 mV/mA.
[3] 400.0 mA accuracy specified up to 600 mA overload.

Frequency

Range	Resolution	Accuracy [1]
99.99 Hz	0.01 Hz	0.1 % + 1
999.9 Hz	0.1 Hz	
9.999 kHz	0.001 kHz	
99.99 kHz	0.01 kHz	

[1] Frequency is specified up to 99.99 kHz in volts and up to 10 kHz in amps.

Input characteristics

Function	Overload Protection	Input Impedance (nominal)	Common Mode Rejection Ratio (1 kΩ unbalance)		Normal Mode Rejection
V⎓	1100 V rms	> 10 MΩ < 100 pF	> 120 dB at dc, 50 Hz or 60 Hz		> 60 dB at 50 Hz or 60 Hz
V~	1100 V rms	> 10 MΩ < 100 pF	> 60 dB, dc to 60 Hz		
mV⎓~	1100 V rms	> 10 MΩ < 100 pF	> 120 dB at dc, 50 Hz or 60 Hz		> 60 dB at 50 Hz or 60 Hz
Open circuit test voltage			Full scale voltage		Typical short circuit current
			To 6 MΩ	50 MΩ	
Ω/⊣⊢	1100 V rms	< 2.7 V dc	< 0.7 V dc	< 0.9 V dc	< 350 mA
))))/⊣⊢	1100 V rms	< 2.7 V dc	2.000 V dc		< 1.1 mA

Function	Overload Protection	Overload
mA	Fused, 44/100 A, 1000 V FAST Fuse	600 mA overload for 2 minutes maximum, 10 minutes rest minimum

MIN/MAX recording

Function	Accuracy
DC functions	The specified accuracy of the measurement function ± 12 counts for changes > 350 ms in duration.
AC functions	The specified accuracy of the measurement function ± 40 counts for changes > 900 ms in duration.

General specifications (Not compatible with Fluke CNX test tools)

Maximum voltage between any terminal and earth ground	1000 V dc or ac rms
Ω fuse protection from A inputs	0.44 A (44/100 A, 440 mA), 1000 V FAST Fuse, Fluke specified part only
Display (LCD)	Update rate: 4/sec Votls, amps, ohms: 6000 counts Frequency: 10,000 counts Capacitance: 1,000 counts
Battery type	Three AA Alkaline batteries, NEDA 15A IEC LR6
Battery life	250 hours minimum
RF communications	2.4 GHZ ISM Band
RF communication range	Open air, unobstructed: Up to 20m Obstructed, sheetrock wall: Up to 6.5m Obstructed, concrete wall, or steel electrical enclosure: Up to 3.5m
Temperature	Operating: -10 °C to 50 °C Storage: -40 °C to 60 °C
Temperature coefficient	0.1 X (specified accuracy) /°C (<18 °C or >28 °C)
Relative humidity	0 % to 90 % (0 °C to 35 °C), 0 % to 75 % (35 °C to 40 °C), 0 % to 45 % (40 °C to 50 °C)
Altitude	Operating: 2,000 m Storage: 12,000 m
Electromagnetic compatibilty EMI, RFI, EMC, RF	EN 61326-1:2013, EN 61326-2-2:2013. ETSI EN 300 328 V1.7.1:2006, ETSI EN 300 489 V1.8.1:2008, FCC Part 15 Subpart C Sections 15.207, 15.209, 15.249, FCCID : FCC: T68-FDMMBLE IC: 6627A-FDMMBLE
Safety compliance	ANSI/ISA 61010-1 / (82.02.01): 3rd edition CAN/CSA-C22.2 No 61010-1-12: 3rd edition UL 61010-1: 3rd edition IEC/EN 61010-1:2010
Certifications	cCSAus, FCC, CE
Ingress Protection (IP) rating	IP54
Pollution Degree	2
Size (H x W x L)	4.75 cm x 9.3 cm x 20.7 cm (1.87 in x 3.68 in x 8.14 in)
Weight	340 g (12 oz)