

True RMS Digital MultiMeter

MODEL 9045



Applications

- Test various electrical circuits
- Perfect for professionals and DIY

Features

- 3 3/4 digit, 6000 count backlit display
- 44 ranges including: Voltage, Current, Resistance, Capacitance, Frequency & More!
- AC Voltage to 750V & DC Voltage to 1000V
- AC/DC Current up to 10A
- CAT III 600V certified
- 3 year limited warranty



Digital Multimeter Functions	Model Number		9055	9045	9007	1101-B	2030-C
	DC Voltage		0.1mV to 1000V 3(400mV_ 4/40V, 0.1mV__0.001/0.01V res) ±(1% rdg + 4 dgts) 1(400V, 0.1V res) ±(1.5% rdg + 4 dgts) 1(600V CAT IV, 1000V CAT III, 1V res) ±(1.5% rdg + 4 dgts)	0.1mV to 1000V 4(600mV__ 6/60/600V, 0.1mV__ 0.001/0.01/0.1V res) ± (0.5% rdg + 5 dgts) 1(600V CAT III, 1000V CAT II, 1V res) ± (0.8% rdg + 5 dgts)	1000V 4(200mV to 200V) 0.5% ± 2 digits 1(1000V) 0.8% ± 2 digits	0.1mV to 600V 3(200mV__ 2/20V, 0.1mV__ 0.001/0.01 res) ± (0.8% rdg + 4 dgts) 1(200V, 0.1V res) ± (0.8% rdg + 5 dgts) 1(600V CAT II, 1V res) ± (1.2% rdg + 5 dgts)	0.1mV to 600V 4(400mV_ 4/40/400V, 0.1mV__ 0.001/0.01/0.1V res) ± (0.8% rdg + 3 dgts) 1(600V CAT II, 1V res) ± (1% rdg + 3 dgts)
			0.1mV to 700V 1(400mV, 0.1mV res) ±(1.5% rdg + 15 dgts) 2(4/40V, 0.001/0.01V res) ±(1% rdg + 4 dgts) 1(400V, 0.1V res) ±(1.5% rdg + 4 dgts) 1(600V CAT IV, 700V CAT III, 1V res) ±(2% rdg + 4 dgts)	0.001V to 750V True RMS 3(6/60/600V, 0.001/0.01/0.1V res) ± (0.8% rdg + 5 dgts) 1(600V CAT III, 750V CAT II, 1V res) ± (1.2% rdg + 5 dgts)	700V 1(200mV) 1.0% ± 5 digits 3(2V to 200V) 1.0% ± 3 digits 1(700V) 1.2% ± 5 digits	0.1V to 600V 1(200V, 0.1V res) ± (1.5% rdg + 5 dgts) 1(600V CAT II, 1V res) ± (1.5% rdg + 8 dgts)	0.1mV to 600V 1(400mV, 0.1mV res) ± (1.5% rdg + 5 dgts) 3(4/40/400V, 0.001/0.01/0.1V res) ± (1.2% rdg + 5 dgts) 1(600V CAT II, 1V res) ± (1.5% rdg + 5 dgts)
	DC Current		0.1uA to 10A 2(400/4000uA, 0.1/1uA res) ±(1% rdg + 4 dgts) 2(40/400mA, 0.01/0.1mA res) ±(1.2% rdg + 4 dgts) 2(4/10A, 0.001/0.01A res) ±(2% rdg + 5 dgts)	0.1uA to 10A 2(600/ 6000uA, 0.1/1uA res) ±(2% rdg + 5 dgts) 2(60/ 600mA, 0.01/0.1mA res) ±(1.5% rdg + 5 dgts) 2(6/10A, 0.001/0.01A res) ±(2% rdg + 5 dgts)	20A 1(2mA) 1.0% ± 3 digits 2(20mA & 200mA) 1.5% ± 3 digits 1(20A) 2.5% ± 10 digits	0.001mA to 10A 2(2/20mA, 0.001/0.01mA res) ±(1.2% rdg + 5 dgts) 1(200mA, 0.1mA res) ±(2% rdg + 5 dgts) 1(10A, 0.01A res) ±(3% rdg + 5 dgts)	0.1uA to 400mA 2(400/4000uA, 0.1/1uA res) ±(2% rdg + 5 dgts) 2(40/400mA, 0.01/1mA res) ±(1.5% rdg + 5 dgts)
Digital Multimeter Functions Continued	AC Current (60Hz)		0.1uA to 10A 2(400/4000uA, 0.1/1uA res) ±(1.2% rdg + 4 dgts) 2(40/400mA, 0.01/0.1mA res) ±(1.5% rdg + 4 dgts) 2(4/10A, 0.001/0.01A res) ±(2% rdg + 5 dgts)	0.1uA to 10A True RMS 2(600/ 6000uA, 0.1/1uA res) ±(2.5% rdg + 5 dgts) 2(60/ 600mA, 0.01/0.1mA res) ±(2% rdg + 5 dgts) 2(6/10A, 0.001/0.01A res) ±(2.5% rdg + 5 dgts)	20A 1(2mA) 1.2% ± 3 digits 2(200mA) 2.0% ± 3 digits 1(20A) 3.0% ± 10 digits	-	0.1uA to 400mA 2(400/4000uA, 0.1/1uA res) ±(2.5% rdg + 5 dgts) 2(40/400mA, 0.01/1mA res) ±(2% rdg + 5 dgts)
	Resistance (Ohms)		0.1Ω to 40 MΩ 1(400Ω, 0.1Ω res) ±(1.5% rdg + 4 dgts) 3(4/40/400KΩ, 0.001/0.01/0.1K res) ±(1.5% rdg + 3 dgts) 1(4MΩ 0.001MΩ res) ±(2% rdg + 3 dgts) 1(40MΩ 0.01MΩres) ±(2.5% rdg + 3 dgts)	0.1Ω to 60M 4(600Ω_ 6/60/ 600K, 0.1Ω__0.001/0.01/0.1K res) ±(1% rdg + 5 dgts) 2(6/60M, 0.001/0.01M res) ±(2% rdg + 5 dgts)	200 to 200M 1(200) 1.0% ± 5 digits 1(2K) 1.0% ± 2 digits 3(20K to 2M) 1.2% ± 2 digits 1(20M) 2.0% ± 5 digits 1(200M) 5.0% ± (rdg - 10) + 10 digits	0.1Ω to 2M 1(200Ω, 0.1 res) ± (1.5% rdg + 5 dgts) 3(2/20/200K, 0.001/0.01/0.1K res) ±(1.2% rdg + 5 dgts) 1(2M, 0.001M res) ± (1.5% rdg + 5 dgts)	0.1Ω to 40M 5(400Ω_ 4/40/400K__4M,0.1Ω__0.001/0.01/0.1K_0.001M res) ±(1% rdg + 3 dgts) 1(40M) ±(3% rdg + 5 dgts) .1Ω__0.001/0.01/0.1K_0.001M res) ±(1% rdg + 3 dgts) 1(40M) ±(3% rdg + 5 dgts)
	Frequency		0.001Hz to 10MHz 6(5/50/500Hz_ 5/50/500KHz, 0.001/0.01/0.1Hz__0.001/0.01/0.01K Hz res) ±(1.2% rdg + 3 dgts) 2(5/10MHz, 0.001/0.01MHz res) ±(1.5% rdg + 4 dgts)	9.999Hz to 9.999MHz 7(10/100/1000Hz__ 10/100/1000KHz__9.999MHz, 0.01/0.1/1Hz__0.01/0.1/1KHz__0.001MHz res) ±(0.1% rdg + 5 dgts)	-	-	10Hz to 5KHz 3(50/500Hz__5KHz, 0.01/0.1Hz__ 0.001KHz res) ±(0.02% rdg + 2 dgts) 10Hz min measurement
	Capacitance		1nF to 100µF 1(50nF, 0.01nF res) ±(5% rdg + 70 dgts) 4(500nF__ 5/50/100µF, 0.1nF__ 0.001/0.01/0.1uF res) ±(4% rdg + 5 dgts)	10nF to 4000µF 1(40nF, 0.01nF res) ±(5% rdg + 10 digits) below 10nF: unspecified) 3(400nF__ 4/40µF, 0.1nF__ 0.001/0.01uF res) ±(3% rdg + 5 dgts) 2(400/4000µF, 0.1/1uF res) ±(20% rdg + 20 digits)	2nF to 200µF 1(2nF) 4.0% ± 70 digits 3(20nF to 2µF) 4.0% ± 3 digits 1(200µF) <20µF 5.0% ± 10 digits >20µF (unspecified)	-	40nF to 100µF 1(40nF, 0.01nF res) ±(5% rdg + 15 dgts) 3(400nF__ 4/40µF, 0.1nF__ 0.001/0.01uF res) ±(2.5% rdg + 10 dgts) 1(100µF, 0.1uF res) ±(3% rdg + 15 dgts)
	Temperature (K-Type)		-4° to 1400°F 1(-4 to 1400F, 1F res) ±(3% rdg + 9 dgts) 1(-20 to 750C, 1C res) ±(3% rdg + 5 dgts)	-58° to 752°F (- 58°F to 392°F, 2°F res) ±(0.75% rdg + 5 dgts) (32°F to 104°F, 2°F res) ± 5°F (392°F to 752°F, 2°F res) ±(1.5% rdg + 5 dgts) (-50°C to 200°C, 1°C res) ±(0.75% rdg + 3 digits) (0°C to 40°C, 1°C res) ± 3°C (200°C to 400°C, 1°C res) ± (1.5% rdg + 3 digits)	-	-4° to 1832°F (- 4°F to 302°F, 1°F res) ±(3% rdg + 5 dgts) (302°F to 572°F, 1°F res) ±(3% rdg + 6 dgts) (572°F to 1832°F, 1°F res) ±(3.5% rdg + 15 dgts)	-
	Continuity		✓	✓	✓	✓	✓
	Diode Check		✓	✓	✓	✓	✓
	Transistor Check (hFE)		-	-	-	✓	-
	Duty Cycle		✓	✓	-	-	✓
	Total Ranges / Functions		53	44	31	19	36
Safety	Overload Protection	mV Ranges	600V CAT IV AC/DC, 1000V CAT III DC, 700V CAT III AC	1000VDC CAT II 750 VAC CAT II 600 AC/DC CAT III	250V AC/DC	250V AC/DC	600V AC/DC CAT II
		Voltage Ranges (ex mV)			CAT I, II and III: 1000VDC / 700VAC CAT IV: 600V AC/DC	600V AC/DC CAT II	600V AC/DC CAT II
		ΩRanges	600V AC/DC for 15 seconds	600V AC/DC for 15 seconds	250V AC/DC	500V AC/DC	600V AC/DC
		Frequency	600V AC/DC	600V AC/DC	250V AC/DC	-	600V AC/DC
		Diode Test	600V AC/DC	600V AC/DC	250V AC/DC	500V AC/DC	600V AC/DC
		Continuity Beeper	600V AC/DC	600V AC/DC	250V AC/DC	500V AC/DC	600V AC/DC
		Logic	-	-	-	-	-
	Fuses	mA Jack	500mA / 660V	800mA/600V	200mA 250V Fuse	200mA / 500V	0.5A / 250V
		A Jack	10A / 600V	10A/600V	20A 250V Fuse (fast)	NOT FUSED, Apply 10A max >10 sec	
	Agency Approval		CE (EMC and LVD) - EN: 61326 EN: 61010-1 - EN: 61010-02-031 IEC 1010-1 On Voltage Ranges Only. See "Overload Protection" above	CE IEC 1010-1 (EN 61010-1) On Voltage Ranges Only. See "Overload Protection" above	CE IEC 1010-1 On Voltage Ranges Only. See "Overload Protection" above	CE IEC 1010-1 On Voltage Ranges Only. See "Overload Protection" above	CE IEC 1010-1 (EN 61010-1) On Voltage Ranges Only. See "Overload Protection" above
Physical	Battery		1 - 9 Volt	1 - 9 Volt	1 - 9 Volt	1 - 9 Volt	2 -1.5V, LR-44 or SR-44
	Dimensions		6.7" x 3" x 1.8"	7.0" x 3.7" x 1.5"	7.0" x 3.2" x 2.2"	2.7" x 5.7" x 1.2"	3.2" x 4.8" x 0.8"
	Weight		11.2 oz	11.0 oz	14.1 oz	6.0 oz	3.5 oz