

BK 5491B



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BK 5491B 是一台通用及可靠的桌上型萬用電錶，它適用於需要有基本及可靠的量測應用環境，如教學、維修服務及生產。此外，這台儀器內建了數學運算功能及 USB 介面來增加你的生產力，這些功能是很難在其他相同價格範圍內的同類型電表所發現到的。

這個電表可以精確及穩定的測量一般典型萬用電表所能量測的參數如電壓、電阻及電流，它的設計也是專門針對對成本敏感的使用者，他們需要一個電表包含了廣泛的附加功能和可靠的基本測量在一個值得花的價格裡。

特點

- 最大 50,000 計數的顯示解析度
- 基本直流電壓測量精確度 0.02%
- 雙顯示器能同時顯示兩個測量值
- AC+DC 真均方值
- 每秒 25 次量最大測速度
- 內建數學運算功能：相對值 (Rel)、最大 / 最小值 (Max/Min)、分貝值 (dB, dBm)、百分比 (%)、資料保持 (Hold) 及比較 (Compare) 等
- CATI(1000V)/CATII(300V) 保護
- USB 及 RS232 介面
- SCPI 相容

Specifications

Ac Voltage

Resolution, Full Scale Reading and Accuracy \pm (% of reading + % of range), 23°C \pm 5°C							
Rate	Range	Resolution	Full Scale Reading	Accuracy(1 year)(1) 23°C \pm 5°C			
				20~50 Hz	50~20 kHz	20~50 kHz	50~100 kHz
Slow	500.00 mV	10 μ V	510.00	1.0%+0.08%	0.5%+0.06%	1.5% + 0.1%	3.0% + 0.3%
	5.0000 V	100 μ V	5.1000	1.0%+0.08%	0.35%+0.02%	1% + 0.04%	3.0% + 0.1%
	50.000 V	1 mV	51.000	1.0%+0.08%	0.35%+0.02%	1% + 0.04%	3.0% + 0.1%
	500.00 V	10 mV	510.00	----	0.5%+0.03%	1% + 0.04%	3.0% + 0.1%
	750.0 V	100 mV	757.5(3)	----	0.5%+0.03%	1% + 0.04% (2)	3.0% + 0.1% (2)

Max. crest factor: 3.0 at full scale

(1) Specifications are for sine wave inputs >5% of range.

(2) Limit at 40 kHz or $\leq 3 \times 10^7$ Volt-Hz for 750 V range

(3) 1% over-range (757.50V) is readable at 750V range

Dc Current

Resolution, Full Scale Reading and Accuracy \pm (% of reading + % of range), 23°C \pm 5°C					
Rate	Range	Resolution	Full Scale Reading	Accuracy (1 year)	Burden Voltage(1) & Shunt Resistor
Slow	5.0000 mA	0.1 μ A	5.1000	0.05%+0.01% (2)	<0.6 V / 100 Ω
	50.000 mA	1 μ A	51.000	0.05%+0.008% (2)	<0.06 V / 1 Ω
	500.00 mA	10 μ A	510.00	0.05%+0.008%	<0.6 V / 1 Ω
	5.0000 A	100 μ A	5.1000	0.25%+0.01%	<0.1 V / 10 m Ω
	20.000 A	1 mA	21.000 (3)	0.25%+0.01%	<0.6 V / 10 m Ω

(1) Typical voltage across the input terminals at full scale reading.

(2) Use REL function

(3) In 20 A range, >10~20 ADC is readable for 20 seconds maximum

Dc Voltage

Resolution, Full Scale Reading and Accuracy \pm (% of reading + % of range), 23°C \pm 5°C					
Rate	Range	Resolution	Full Scale Reading	Accuracy (1 year)	Typical Input Impedance
Slow	500.00 mV	10 μ V	510.00	0.02%+0.016% (1)	>10 M Ω
	5.0000 V	100 μ V	5.1000	0.02%+0.08% (1)	>11.1 M Ω
	50.000 V	1 mV	51.000	0.02%+0.08%	>10.1 M Ω
	500.00 V	10 mV	510.00	0.02%+0.08%	10 M Ω
	1000.0 V	100 mV	1010.0 (2)	0.02%+0.08%	10 M Ω

(1) under REL status

(2) 1% over-range (1010 V) is readable at 1000 V range

Ac Current (True RMS, Ac Coupling)

Resolution, Full Scale Reading and Accuracy \pm (% of reading + % of range), 23°C \pm 5°C						
Rate	Range	Resolution	Full Scale Reading	Accuracy(1 year)(1) 23°C \pm 5°C		
				20~50 Hz	50~2 kHz	2~20 kHz
Slow	5.0000 mA	0.1 μ A	5.1000	1.5%+0.16%	0.5%+0.08%	2%+0.16%
	50.000 mA	10 μ A	51.000	1.5%+0.16%	0.5%+0.08%	2%+0.12%
	500.00 m A	100 μ A	510.00	1.5%+0.16%	0.5%+0.08%	2%+0.12%
	5.0000 A	1 mA	5.1000	2.0%+0.16%	0.5%+0.1%	----
	20.000 A	10 mA	21.000 (2)	2.0%+0.16%	0.5%+0.1%	----

Max. crest factor: 3.0 at full scale

(1) Specifications are for sine wave inputs >5% of range.

(2) In 20 A range,>10~20 A AC is readable for 20 seconds maximum

Resistance

Resolution, Full Scale Reading and Accuracy \pm (% of reading + % of range), 23°C \pm 5°C					
Rate	Range (1)	Resolution	Full Scale Reading	Test current	Accuracy (1 year)
Slow	500.00 Ω	10 m Ω	510.00	0.5 mA	0.10%+0.01% (2)
	5.0000 k Ω	100 m Ω	5.1000	0.45 mA	0.10%+0.008% (2)
	50.000 k Ω	1 Ω	51.000	45 μ A	0.10%+0.008% (2)
	500.00 k Ω	10 Ω	510.00	4.5 μ A	0.10%+0.008%
	5.0000 M Ω	100 Ω	5.1000	450 nA	0.15%+0.008%
	50.000 M Ω	1 k Ω	51.000	45 nA	0.3%+0.01%

(1) In order to eliminate the noise interference, which might be induced to the test leads, it is recommended to use a shielded test cable for measuring resistance above 100 k Ω .

(2) Using REL function

Continuity

Resolution, Full Scale Reading and Accuracy \pm (% of reading + % of range), 23°C \pm 5°C				
Range	Resolution	Full Scale Reading	Test current	Accuracy (1 year) 23 °C \pm 5°C
500 Ω	100 m Ω	999.9	0.5 mA	0.1%+0.04%

Open circuit voltage: <5.5 VDC

Test current: around 0.5 mA DC

Frequency

Resolution, Full Scale Reading and Accuracy \pm (% of reading + % of range), 23°C \pm 5°C					
ACV Range	Frequency Range	Best Resolution	Full Scale Reading	Accuracy	Input Sensitivity (Sine Wave)
200 mV (500 mV*) to 750V	10 Hz	100 μ Hz	9.9999	0.05%+0.02%	200 mV rms
	10~100 Hz	1 mHz	99.999	0.01%+0.02%	300 mV rms
	100~100 kHz	10 mHz	999.99	0.01%+0.008%	300 mV rms
	100k~1 MHz	10 Hz	999.99	0.01%+0.008%	500 mV rms

* Model 5491B

Period

Resolution, Full Scale Reading and Accuracy \pm (% of reading + % of range), 23°C \pm 5°C					
ACV Range	Frequency Range	Best Resolution	Full Scale Reading	Accuracy	Input Sensitivity (Sine Wave)
200 mV (500 mV*) to 750V	1~10 μ s	0.1 ns	9.9999	0.01%+0.008%	500 mV rms
	10 μ s~10 ms	1 ns	9.9999	0.01%+0.008%	300 mV rms
	10 ms~100 ms	1 μ s	99.999	0.01%+0.02%	300 mV rms
	100 ms	10 μ s	199.99	0.05%+0.02%	200 mV rms

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Diode

Resolution, Full Scale Reading and Accuracy \pm (% of reading + % of range), 23°C \pm 5°C				
Rate	Range	Resolution	Full Scale Reading	Test current
Med	2.0000 V	100 μ V	2.3000 V	0.5 mA (Approx.)

General

Power Supply	Power Consumption	Operating Environment	Storage Environment	Warm-up	Dimensions (W×H×D)	Net Weight
110/220 V \pm 10%,					8.85" x 3.93 " x 13.97"	2.5 kg 5.51 lbs
Accessories Included: Test leads, Power cord, Spare fuse, Operation Manual , Calibration certificate and test report						