Digital Multimeters

5½ & 6½ Digit

5490C Series





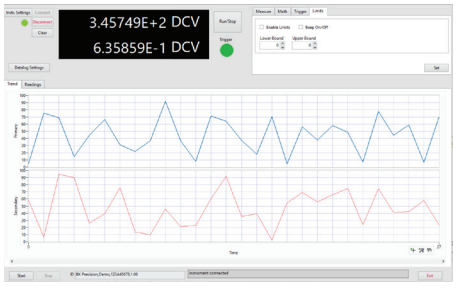
* GPIB model option

The 5490C Series 5½ and 6½-digit bench multimeters are designed for accuracy, repeatability and ease-of-use. A wide measurement range with speeds up to 1000 readings per second, and a basic DCV accuracy up to 35 ppm deliver stable measurement results quickly and accurately. These general purpose meters are well suited for demanding engineering, production and service applications.

The multimeters feature simple and intuitive switching between the 12 measurement functions and display modes for a variety of test setups. Display modes include bar meter, trend chart, and histogram which can be combined with statistics or math functions. The dual measurement feature enables the simultaneous display of 2 measurements, e.g. AC voltage and frequency. Additionally, Limit mode and Probe hold mode allow users to conveniently verify and compare readings.

For remote communication, this series includes standard LAN, USB (USBTMC-compliant) and RS232 interfaces, as well as a GPIB option. A LabVIEW™ driver is provided to simplify system integration and instrument control. The front panel USB host port can be used for transferring screen captures and measurement data, logged with date and time stamp, from the multimeter's internal memory to a computer.

Operating software



The provided operating software supports remote instrument control, live measurement monitoring, and data logging.

Features and benefits

- 12 measurement functions: DCV, ACV, DCI, ACI, 2 and 4-wire resistance, capacitance, frequency, diode, temperature, continuity test, DCV Ratio
- High-contrast 4.3-inch full color LCD
- Histogram, bar meter, and trend chart offer a variety of data analysis options
- Accurate frequency measurements to 1 MHz
- Display Min, Max, Peak-Peak, Average, Standard Deviation statistics simultaneously
- Null, dB, dBm, %, mx+b, and run/stop math functions
- Internal storage buffer holds 10,000 readings
- Measurement speed up to 1000 readings/s
- 35 ppm basic DC voltage accuracy
- 2-wire and 4-wire resistance measurements down to 10 Ω
- Dual measurement display
- Temperature measurement capability using a Pt100 or 5 kΩ thermistor probe
- Rack mount kit option (RK2US)
- Rear input terminals for rack use (6½-digit model only)
- Standard USB (USBTMC-compliant), RS232, and LAN interfaces, GPIB option
- Real-time clock/calendar to set/read time and date

Model	5492C	5492CGPIB	5493C	5493CGPIB
Displayed Digits	5½		6½	
DC Voltage basic accuracy	0.010% (100 ppm)		0.0035% (35 ppm)	
Rear input terminals	--		√	

Technical data subject to change
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Front panel

USB host
Save and recall settings, transfer screen captures, export measurement data files

LCD display
4.3-inch, high contrast, adjustable brightness

Function keys
Quickly cycle between different measurement modes



Input terminals

Rear panel

Rear input terminals
6½-digit models only

Optional GPIB interface
Models 5492CGPIB and 5493CGPIB



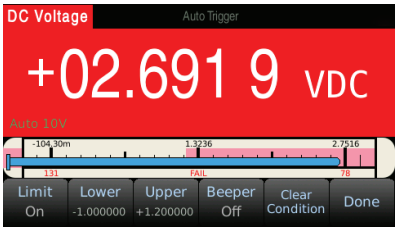
External trigger
Trigger input to synchronize with other events and instruments

Remote interfaces
LAN, USB (USBTMC-compliant) and RS232 interfaces standard

Powerful measurement tools

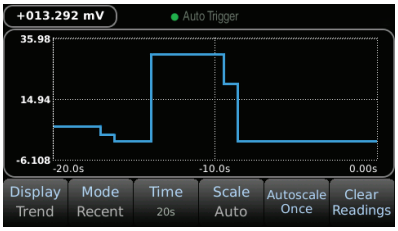
Multiple measurement and display options

Bar meter with limit mode



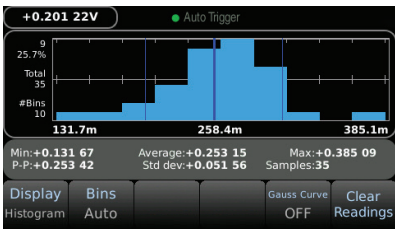
Set upper and lower limit levels with PASS/FAIL counter and indicators.

Trend chart



Trend chart displays live data in graphical form.

Histogram with statistics



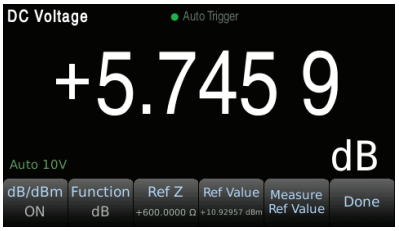
Histogram display mode to view distribution of measurement data.

Statistics display



- Minimum, maximum, peak-to-peak, average, standard deviation
- Reading buffer holds 10,000 data samples

Versatile math functions



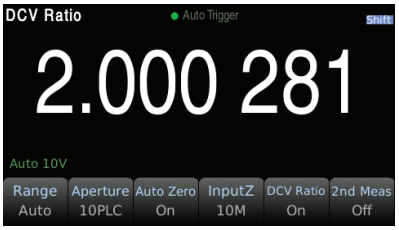
In addition to statistical data and limit test mode, this series is capable of Null, dB, dBm, mX+b, run/stop, and percent calculation functions.

Dual measurement display



Simultaneously display multiple measurements such as frequency and AC voltage.

DC voltage ratio measurement



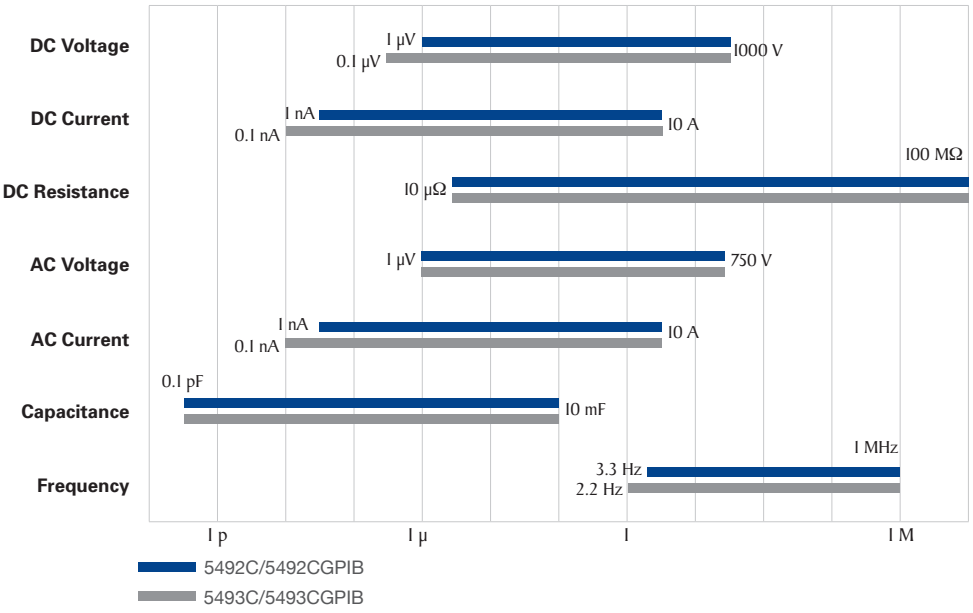
Displays the ratio between two separate DC voltage measurements within ±12 Volts. This function is useful to quickly verify the difference between input and output magnitudes of low voltage circuits.

Probe hold mode



Use probe hold mode to quickly compare a series of readings. Stable readings are captured and added to a list of up to eight measurements.

Min/Max measurement capabilities



Specifications - 5492C / 5492CGPIB

Specifications are based on the following conditions:

- One year calibration cycle
- Calibration temperature T_{CAL} = 23 °C
- Accuracy specifications: ± (% of reading + % of range), valid for T_{CAL} ±5 ºC
- For DC: The technical specifications are valid after a warm-up time of 60 minutes, with the integration time set to 10 or 100 NPLC, and auto zero enabled.
- For AC: The technical specifications are valid after a warm-up time of 60 minutes, slow AC filtering enabled, using a sine wave input signal.

DC Voltage

Range[1]	Resolution	Full Scale Reading	Accuracy (1 year)
100 mV	1 µV	119.999 mV	0.012 + 0.008
1 V	10 µV	1.19999 V	0.010 + 0.005
10 V	100 µV	11.9999 V	0.010 + 0.005
100 V	1 mV	119.999 V	0.010 + 0.005
1000 V	10 mV	1050.00 V	0.010 + 0.005

(1) 20% overrange on all ranges except 1000 V can only test 5% overrange.

DC Current

Range	Burden Voltage	Resolution	Full Scale Reading	Accuracy (1 year)
100 µA	< 0.011 V	1 nA	119.999 µA	0.050 + 0.008
1 mA	< 0.11 V	10 nA	1.19999 mA	0.050 + 0.005
10 mA	< 0.05 V	0.1 µA	11.9999 mA	0.050 + 0.008
100 mA	< 0.5 V	1 µA	119.999 mA	0.050 + 0.005
1 A	< 0.7 V	10 µA	1.19999 A	0.100 + 0.010
3 A	< 2.0 V	10 µA	3.1500 A	0.150 + 0.020
10 A	< 0.5 V	100 µA	11.9999 A	0.200 + 0.010

DC Resistance[2]

Range[3]	Test Current	Resolution	Full Scale Reading	Accuracy (1 year)
10 Ω	10 mA	0.1 mΩ	11.9999 Ω	0.050 + 0.008
100 Ω	10 mA	1 mΩ	119.999 Ω	0.040 + 0.005
1 kΩ	1 mA	10 mΩ	1.19999 kΩ	0.030 + 0.004
10 kΩ	100 µA	0.1 mΩ	11.9999 kΩ	0.030 + 0.004
100 kΩ[4]	50 µA	1 Ω	119.999 kΩ	0.030 + 0.004
1 MΩ	5 µA	10 Ω	1.19999 MΩ	0.030 + 0.004
10 MΩ	500 nA	100 Ω	11.9999 MΩ	0.100 + 0.004
100 MΩ	500 nA ‖ 10 MΩ	1 kΩ	119.999 MΩ	1.000 + 0.010

(2) Specifications apply to 2-wire and 4-wire resistance measurements using NULL for offset. Without NULL, add 0.2 Ω additional error for 2-wire measurements.
(3) 20% overrange on all ranges
(4) To eliminate noise interference, it is recommended to use shielded test cables for resistance measurements above 100 kΩ.

Capacitance

Range[5]	Test Current	Full Scale Reading	Accuracy (1 year)
1 nF	10 µA	1.19999 nF	2.0 + 0.5
10 nF	10 µA	11.9999 nF	0.5 + 0.1
100 nF	10 µA	119.999 nF	0.5 + 0.1
1 µF	100 µA	1.19999 µF	0.5 + 0.1
10 µF	100 µA	11.9999 µF	0.5 + 0.1
100 µF	1 mA	119.999 µF	0.5 + 0.1
1 mF	10 mA	1.19999 mF	0.5 + 0.1
10 mF	10 mA	11.9999 mF	1.0 + 0.50

(5) 20% overrange on all ranges.

Frequency[6][7]

Frequency Range	Resolution	Full Scale Reading	Accuracy (1 year)
3 Hz to 10 Hz	10 µHz	9.99999 Hz	0.050 + 50
10 Hz to 100 Hz	100 µHz	99.9999 Hz	0.010 + 10
100 Hz to 1 kHz	1 mHz	999.999 Hz	0.005 + 2
1 kHz to 10 kHz	10 mHz	9.99999 kHz	0.005 + 2
10 kHz to 100 kHz	0.1 Hz	99.9999 kHz	0.005 + 2
100 kHz to 300 kHz	1 Hz	300.000 kHz	0.005 + 2
300 kHz to 1 MHz [8]	1 Hz	999.999 kHz	0.005 + 2

(6) Applies to sine wave input and gate time set to 1 second.
(7) For sine wave input larger than 100 mV. For a 10 mV to 100 mV input, multiply the % of reading error by 10.
(8) For frequency measurements greater than 750 kHz, use manual ranges for best accuracy.

Specifications - 5492C / 5492CGPIB

True RMS AC Voltage[1][2]

100 mV, 1 V, 10 V, 100 V, and 750 V ranges

Frequency	Accuracy (1 Year)
3 Hz to 5 Hz	1.00 + 0.03
5 Hz to 20 Hz	0.38 + 0.03
20 Hz to 20 kHz	0.10 + 0.03
20 kHz to 50 kHz	0.15 + 0.05
50 kHz to 100 kHz	0.63 + 0.08
100 kHz to 300 kHz	4.00 + 0.50

Range[3]	Resolution	Full Scale Reading
100 mV	1 µV	119.999 mV
1 V	10 µV	1.19999 V
10 V	100 µV	11.9999 V
100 V	1 mV	119.999 V
750 V[4]	10 mV	787.50 V

(1) Valid for sine wave input > 0.3% of range and greater than 1 mVrms.
(2) Three filters are available for low-frequency performance: 3 Hz, 20 Hz, and 200 Hz. No additional errors will occur for frequencies above these filter settings.
(3) 20% overrange on all ranges except 750 V range can only test 5% overrange.
(4) 750 V range is limited to 8 x 10^7 Volt-Hz.

True RMS AC Current [5][6]

Range[7]	Burden Voltage	Resolution	Full Scale Reading	Accuracy (1 year)		
				3 Hz to 5 Hz	5 Hz to 20 Hz	20 Hz to 10 kHz
100 µA	< 0.011 V	1 nA	119.999 µA	1.00 + 0.03	0.5 + 0.03	0.20 + 0.04
1 mA	< 0.11 V	10 nA	1.19999 mA	1.00 + 0.03	0.5 + 0.03	0.20 + 0.04
10 mA	< 0.05 V	0.1 µA	11.9999 mA	1.00 + 0.03	0.5 + 0.03	0.20 + 0.04
100 mA	< 0.5 V	1 µA	119.999 mA	1.00 + 0.03	0.5 + 0.03	0.20 + 0.04
1 A	< 0.7 V	10 µA	1.19999 A	1.00 + 0.03	0.5 + 0.03	0.20 + 0.04
3 A	< 2.0 V	10 µA	3.1500 A	1.00 + 0.03	0.5 + 0.03	0.25 + 0.04
10 A[8]	< 0.5 V	100 µA	11.9999 A	1.00 + 0.03	0.5 + 0.03	0.30 + 0.05

(5) Three filters are available for low-frequency performance: 3 Hz, 20 Hz, and 200 Hz. No additional errors will occur for frequencies above these filter settings.
(6) Valid for sinewave input > 1% of range and greater than 10 µA AC.
(7) 20% overrange on all ranges except 3 A range can only test 5% overrange.
(8) 10 A range available on front panel only.

Continuity

Range	Test Current	Accuracy (1 year)	Temperature Coefficient / °C
1 kΩ	1 mA	0.030 + 0.004	0.0010 + 0.0020

Temperature

Type	Accuracy
Pt100 (DIN / IEC 751)	Probe accuracy + 0.05 °C
5 kΩ thermistor	Probe accuracy + 0.10 °C

Diode[9]

Range	Test Current	Accuracy (1 year)	Temperature Coefficient / °C
5 V	1 mA	0.010 + 0.005[1]	0.0010 + 0.0020

(9) Applicable to the voltage measured at the input terminal. A 1 mA test current is typical. Changes in the current source will cause variations in voltage drop across the diode junction.

Specifications - 5493C / 5493CGPIB

Specifications are based on the following conditions:

- One year calibration cycle
- Calibration temperature T_{CAL} = 23 °C
- Accuracy specifications: ± (% of reading + % of range), valid for T_{CAL} ±5 °C
- All 24 hours accuracy specifications are typical
- Add temperature coefficient for every °C outside T_{CAL} ±5 °C
- For DC: The technical specifications are valid after a warm-up time of 60 minutes, with the integration time set to 10 or 100 NPLC, and auto zero enabled.
- For AC: The technical specifications are valid after a warm-up time of 60 minutes, slow AC filtering enabled, using a sine wave input signal.

DC Voltage

Range[1]	Resolution	Full Scale Reading	Accuracy			Temperature Coefficient / °C
			24 Hours[2] T_{CAL} ± 1 °C	90 Days T_{CAL} ± 5 °C	1 Year T_{CAL} ± 5 °C	
100 mV	0.1 µV	119.9999 mV	0.0030 + 0.0030	0.0040 + 0.0035	0.0050 + 0.0035	0.0005 + 0.0005
1 V	1 µV	1.199999 V	0.0020 + 0.0006	0.0030 + 0.0007	0.0040 + 0.0007	0.0005 + 0.0001
10 V	10 µV	11.99999 V	0.0015 + 0.0004	0.0020 + 0.0005	0.0035 + 0.0005	0.0005 + 0.0001
100 V	100 µV	119.9999 V	0.0020 + 0.0006	0.0035 + 0.0006	0.0045 + 0.0006	0.0005 + 0.0001
1000 V	1 mV	1050.000 V	0.0020 + 0.0006	0.0035 + 0.0010	0.0045 + 0.0010	0.0005 + 0.0001

(1) 20% overrange on all ranges except 1000 V range which can only test 5% overrange.
(2) Relative to calibration standards.

DC Current

Range	Burden Voltage	Resolution	Full Scale Reading	Accuracy			Temperature Coefficient / °C
				24 Hours T_{CAL} ± 1 °C	90 Days T_{CAL} ± 5 °C	1 Year T_{CAL} ± 5 °C	
100 µA	< 0.011 V	0.1 nA	119.9999 µA	0.010 + 0.020	0.040 + 0.025	0.050 + 0.025	0.0020 + 0.0030
1 mA	< 0.11 V	1 nA	1.199999 mA	0.010 + 0.006	0.030 + 0.006	0.050 + 0.006	0.0020 + 0.0005
10 mA	< 0.05 V	10 nA	11.99999 mA	0.010 + 0.020	0.030 + 0.020	0.050 + 0.020	0.0020 + 0.0020
100 mA	< 0.5 V	0.1 µA	119.9999 mA	0.010 + 0.004	0.030 + 0.005	0.050 + 0.005	0.0020 + 0.0005
1 A	< 0.7 V	1 µA	1.199999 A	0.050 + 0.006	0.080 + 0.010	0.100 + 0.010	0.0050 + 0.0010
3 A	< 2.0 V	1 µA	3.15000 A	0.180 + 0.020	0.200 + 0.020	0.200 + 0.020	0.0050 + 0.0020
10 A[3]	< 0.5 V	10 µA	11.99999 A	0.050 + 0.010	0.120 + 0.010	0.120 + 0.010	0.0050 + 0.0010

(3) 10 A range available on front panel only.

DC Resistance[4]

Range[5]	Test Current	Resolution	Full Scale Reading	Accuracy			Temperature Coefficient / °C
				24 Hours T_{CAL} ± 1 °C	90 Days T_{CAL} ± 5 °C	1 Year T_{CAL} ± 5 °C	
10 Ω	10 mA	10 µΩ	11.99999 Ω	0.0050 + 0.0040	0.0080 + 0.0060	0.0100 + 0.0080	0.0006 + 0.0008
100 Ω	10 mA	0.1 mΩ	119.9999 Ω	0.0030 + 0.0020	0.0080 + 0.0030	0.0100 + 0.0040	0.0006 + 0.0005
1 kΩ	1 mA	1 mΩ	1.199999 kΩ	0.0020 + 0.0005	0.0080 + 0.0010	0.0100 + 0.0010	0.0006 + 0.0001
10 kΩ	100 µA	10 mΩ	11.99999 kΩ	0.0020 + 0.0005	0.0080 + 0.0010	0.0100 + 0.0010	0.0006 + 0.0001
100 kΩ[6]	50 µA	100 mΩ	119.9999 kΩ	0.0020 + 0.0005	0.0080 + 0.0010	0.0100 + 0.0010	0.0006 + 0.0001
1 MΩ	5 µA	1 Ω	1.199999 MΩ	0.0020 + 0.0010	0.0080 + 0.0010	0.0100 + 0.0010	0.0010 + 0.0002
10 MΩ	500 nA	10 Ω	11.99999 MΩ	0.0150 + 0.0010	0.0200 + 0.0010	0.0400 + 0.0010	0.0030 + 0.0004
100 MΩ	500 nA || 10 MΩ	100 Ω	119.9999 MΩ	0.3000 + 0.0100	0.8000 + 0.0100	0.8000 + 0.0100	0.1500 + 0.0002

(4) Specifications apply to 2-wire and 4-wire resistance measurements using NULL for offset. Without NULL, add 0.2 Ω additional error for 2-wire measurements.
(5) 20% overrange on all ranges
(6) To eliminate noise interference, it is recommended to use shielded test cables for resistance measurements above 100 kΩ.

Specifications - 5493C / 5493CGPIB

Capacitance

Range[1]	Full Scale Reading	Accuracy			Temperature Coefficient / °C
		24 Hours T_{CAL} ± 1 °C	90 Days T_{CAL} ± 5 °C	1 Year T_{CAL} ± 5 °C	
1 nF	1.199999 nF	0.5 + 0.10	0.5 + 0.40	2.0 + 0.50	0.02 + 0.001
10 nF	11.99999 nF	0.2 + 0.05	0.5 + 0.10	1.0 + 0.10	0.02 + 0.001
100 nF	119.9999 nF	0.2 + 0.05	0.5 + 0.10	1.0 + 0.10	0.02 + 0.001
1 µF	1.199999 µF	0.2 + 0.05	0.5 + 0.05	1.0 + 0.10	0.02 + 0.001
10 µF	11.99999 µF	0.2 + 0.05	0.5 + 0.05	1.0 + 0.10	0.02 + 0.001
100 µF	119.9999 µF	0.2 + 0.05	0.5 + 0.05	1.0 + 0.10	0.02 + 0.001
1 mF	1.199999 mF	0.2 + 0.05	0.5 + 0.05	1.0 + 0.20	0.02 + 0.001
10 mF	11.99999 mF	0.5 + 0.20	0.5 + 0.30	1.0 + 0.50	0.02 + 0.001

(1) 20% overrange on all ranges.

True RMS AC Voltage[2][3]

100 mV, 1 V, 10 V, 100 V, and 750 V ranges

Frequency	24 Hours T_{CAL} ± 1 °C	90 Days T_{CAL} ± 5 °C	1 Year T_{CAL} ± 5 °C	Temperature Coefficient / °C
3 Hz to 5 Hz	1.00 + 0.02	1.00 + 0.02	1.00 + 0.03	1.00 + 0.03
5 Hz to 10 Hz	0.35 + 0.02	0.35 + 0.03	0.35 + 0.03	0.35 + 0.03
10 Hz to 20 kHz	0.04 + 0.02	0.05 + 0.03	0.06 + 0.03	0.07 + 0.03
20 kHz to 50 kHz	0.10 + 0.04	0.11 + 0.05	0.12 + 0.05	0.13 + 0.05
50 kHz to 100 kHz	0.55 + 0.08	0.60 + 0.08	0.60 + 0.08	0.60 + 0.08
100 kHz to 300 kHz	4.00 + 0.50	4.00 + 0.50	4.00 + 0.50	4.00 + 0.50

Range[4]	Resolution	Full Scale Reading
100 mV	1 µV	119.9999 mV
1 V	10 µV	1.199999 V
10 V	100 µV	11.99999 V
100 V	1 mV	119.9999 V
750 V[5]	10 mV	787.500 V

(2) Valid for sine wave input > 0.3% of range and greater than 1 mVrms.
(3) Three filters are available for low-frequency performance: 3 Hz, 20 Hz, and 200 Hz. No additional errors will occur for frequencies above these filter settings.
(4) 20% overrange on all ranges except 750 V range which can only test 5% overrange.
(5) 750 V range is limited to 8 x 10^7 Volt-Hz.

Continuity

Range	Test Current	Accuracy			Temperature Coefficient / °C
		24 Hours T_{CAL} ± 1°C	90 Days T_{CAL} ± 5°C	1 year T_{CAL} ± 5°C	
1 kΩ	1 mA	0.002 + 0.030	0.008 + 0.030	0.010 + 0.030	0.0010 + 0.0020

Diode[6]

Range	Test Current	Accuracy			Temperature Coefficient / °C
		24 Hours T_{CAL} ± 1°C	90 Days T_{CAL} ± 5°C	1 year T_{CAL} ± 5°C	
5 V	1 mA	0.002 + 0.030	0.008 + 0.030	0.010 + 0.030	0.0010 + 0.0020

(6) Applicable to the voltage measured at the input terminal. A 1 mA test current is typical. Changes in the current source will cause variations in voltage drop across the diode junction.

Specifications - 5493C / 5493CGPIB

True RMS AC Current[1][2]

Range[3], Burden Voltage	Frequency	Accuracy			Temperature Coefficient / °C
		24 Hours T_{CAL} ± 1 °C	90 Days T_{CAL} ± 5 °C	1 Year T_{CAL} ± 5 °C	
100 µA, < 0.01 V 1 mA, < 0.1 V 10 mA, < 0.05 V 100 mA, < 0.5 V	3 Hz to 5 Hz	1.00 + 0.02	1.00 + 0.02	1.00 + 0.04	0.100 + 0.006
	5 Hz to 10 Hz	0.30 + 0.02	0.30 + 0.03	0.30 + 0.04	0.035 + 0.006
	10 Hz to 5 kHz	0.10 + 0.04	0.10 + 0.04	0.10 + 0.04	0.015 + 0.006
	5 kHz to 10 kHz	0.10 + 0.04	0.10 + 0.04	0.10 + 0.04	0.030 + 0.006
1 A, < 0.7 V	3 Hz to 5 Hz	1.00 + 0.02	1.00 + 0.02	1.00 + 0.04	0.100 + 0.006
	5 Hz to 10 Hz	0.30 + 0.02	0.30 + 0.03	0.30 + 0.04	0.035 + 0.006
	10 Hz to 5 kHz	0.10 + 0.04	0.10 + 0.04	0.10 + 0.04	0.015 + 0.006
	5 kHz to 10 kHz	0.30 + 0.04	0.30 + 0.04	0.30 + 0.04	0.030 + 0.006
3 A, < 2.0 V	3 Hz to 5 Hz	1.00 + 0.02	1.00 + 0.02	1.00 + 0.04	0.100 + 0.006
	5 Hz to 10 Hz	0.35 + 0.02	0.35 + 0.03	0.35 + 0.04	0.035 + 0.006
	10 Hz to 5 kHz	0.23 + 0.04	0.23 + 0.04	0.23 + 0.04	0.015 + 0.006
	5 kHz to 10 kHz	0.30 + 0.04	0.30 + 0.04	0.30 + 0.04	0.030 + 0.006
10 A[4], < 0.5 V	3 Hz to 5 Hz	1.00 + 0.02	1.00 + 0.02	1.00 + 0.04	0.100 + 0.006
	5 Hz to 10 Hz	0.30 + 0.02	0.35 + 0.03	0.30 + 0.04	0.035 + 0.006
	10 Hz to 5 kHz	0.15 + 0.04	0.15 + 0.04	0.2 + 0.08	0.015 + 0.006
	5 kHz to 10 kHz	0.15 + 0.04	0.15 + 0.04	0.2 + 0.08	0.030 + 0.006

(1) Three filters are available for low-frequency performance: 3 Hz, 20 Hz, and 200 Hz. No additional errors will occur for frequencies above these filter settings.
(2) Valid for sinewave input > 1% of range and greater than 10 µA AC.
(3) 20% overrange on all ranges except 3 A range which can only test 5% overrange.
(4) 10 A range available on front panel only.

Frequency ±(% of reading)[5][6]

100 mV, 1 V, 10 V, 100 V, and 750 V ranges

Frequency Range	Accuracy			Temperature Coefficient / °C
	24 Hours T_{CAL} ± 1 °C	90 Days T_{CAL} ± 5 °C	1 Year T_{CAL} ± 5 °C	
2 Hz to 10 Hz	0.1	0.100	0.100	0.0002
10 Hz to 100 Hz	0.030	0.030	0.030	0.0002
100 Hz to 1 kHz	0.003	0.008	0.010	0.0002
1 kHz to 300 kHz	0.002	0.006	0.010	0.0002
300 kHz to 1 MHz[7]	0.002	0.006	0.010	0.0002
Square wave[8]	0.001	0.006	0.010	0.0002

(5) Applies for sine wave input and gate time set to 1 second.
(6) For sine and square wave input larger than 100 mV. For a 10 mV to 100 mV input, multiply the % reading error by 10.
(7) For frequency measurements greater than 750 kHz, use manual ranges for best accuracy.
(8) Square input specified for 10 Hz to 300 kHz.

Additional gate time errors ±(% of reading)

Frequency	1 second	0.1 second	0.01 second
3 Hz to 40 Hz	0	0.200	0.200
40 Hz to 100 Hz	0	0.060	0.200
100 Hz to 1 kHz	0	0.020	0.200
1 kHz to 300 kHz	0	0.004	0.030
Square wave[8]	0	0	0

Temperature

Type	Accuracy
Pt100 (DIN / IEC 751)	Probe accuracy + 0.05 °C
5 kΩ thermistor	Probe accuracy + 0.10 °C

Specifications

General		
AC Input		110 V/220 V ±10%, 50/60 Hz
Power Consumption		≤ 30 VA
I/O Interface		RS232, USB host, USB (USBTMC-compliant) device, LAN, GPIB (5492CGPIB and 5493CGPIB only)
Temperature	Operating	32 °F to 104 °F (0 °C to 40 °C)
	Storage	-40 °F to 158 °F (-40 °C to 70 °C)
Humidity		Indoor use, ≤ 95 %
Safety		EN 61110-1:2010, Low Voltage Directive (LVD) 2014/35/EU
Electromagnetic Compatibility		EN 61326-1:2013, EMC directive 2014/30/EU
Dimensions (W x H x D)		8.85" x 3.93" x 13.97" (225 mm x 100 mm x 355 mm)
Weight		5.51 lbs (2.5 kg)
Warranty		3 years
Standard Accessories		Power cord, USB cable, test leads, spare fuses, test report and certificate of calibration
Optional Accessories		Rack mount kit (RK2US), high performance bench DMM accessory kit (TL500B), general purpose DMM kit (TLI30B), Maxi-Pro DMM kit (TL50B), replacement probes (TL37)

About B&K Precision

For more than 70 years, B&K Precision has provided reliable and value-priced test and measurement instruments worldwide.

Our headquarters in Yorba Linda, California houses our administrative and executive functions as well as sales and marketing, design, service, and repair. Our European customers are most familiar with B&K through our French subsidiary, Sefram. Engineers in Asia know us through our B+K Precision Taiwan operation. The independent service centers in Singapore and Brasil service customers in Singapore, Malaysia, Vietnam, Indonesia and South America, respectively.



B&K Precision group member Independent service center Service center location

Quality Management System

B&K Precision Corporation is an ISO9001 registered company employing traceable quality management practices for all processes including product development, service, and calibration.

ISO9001:2015

Certification body NSF-ISR
Certificate number 6Z241-IS8

NSF-ISR
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