Data Sheet

Triple Output Programmable DC Power Supply

Model 9129B

The 9129B is an economical triple output linear programmable DC power supply featuring isolated outputs that can be adjusted independently or combined in series or parallel to output higher voltage or current. Additionally, this supply can operate in tracking mode with user-configurable ratios between channels.

The front panel keys and rotary knob with convenient cursors let users quickly set voltage and current values. Up to 27 different instrument settings can be saved and recalled. The power-on state of the outputs can also be configured.

The USB to TTL interface supporting SCPI commands can be used to remotely control the power supply via a PC. Alternatively, users can control the 9129B, execute test sequences or log measurements using the provided PC software application. This software also integrates with Data Dashboard for LabVIEW apps enabling iOS, Android, or Windows 8 compatible tablets or smartphones to remotely monitor select measurement indicators.

This power supply is suitable for a wide range of applications including education, service and electronic design.

Output Rating	
Voltage	0 - 30 V (CH1 & CH2) 0 - 5 V (CH3)
Current	0-3 A (CH1, CH2 & CH3)

Features

- Three independent and electrically isolated outputs
- Displays voltage and current settings for all three channels simultaneously
- Low noise, linear regulation
- Series and parallel modes combine channels to increase the output voltage or current
- Tracking mode allows users to set up channels to maintain a programmed ratio
- Fully programmable channels with output On/Off control
- Store and recall up to 27 instrument settings
- Communicate via USB interface supporting SCPI commands using the included USB to TTL serial adapter
- Softpanel for remote control, test sequence generation, and datalogging available
- Overvoltage (OVP) and overtemperature (OTP) protection including keylock function
- Compact 19" half-rack form factor allows for side-by-side rack mounting of two units

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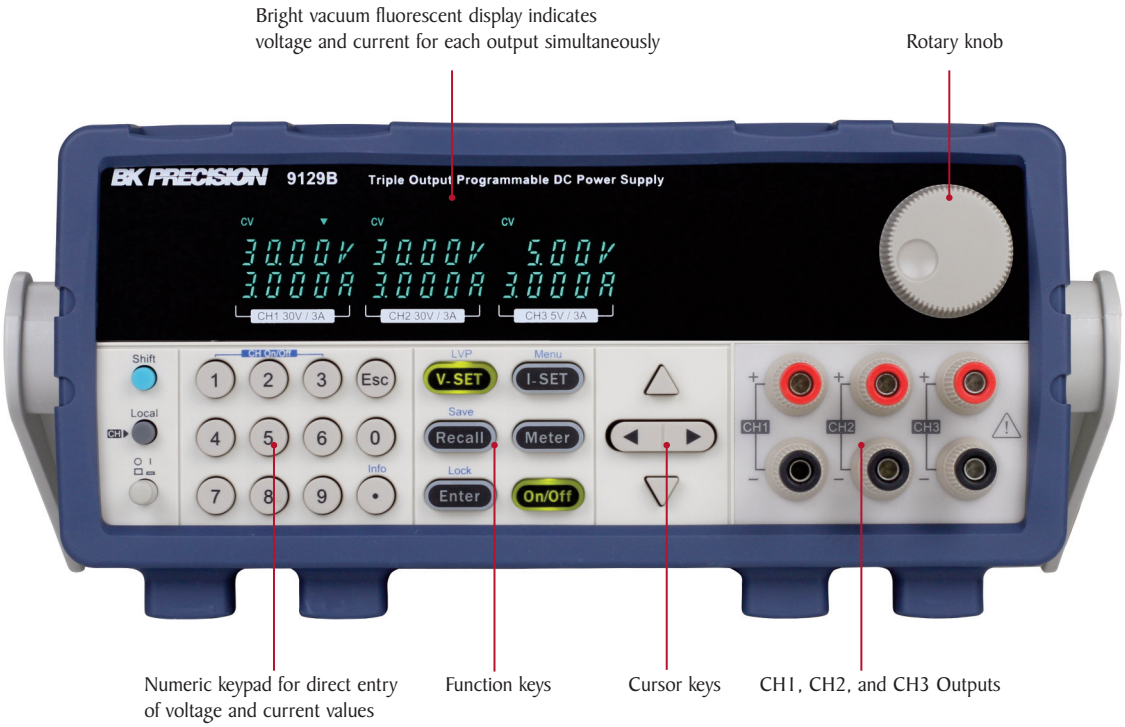
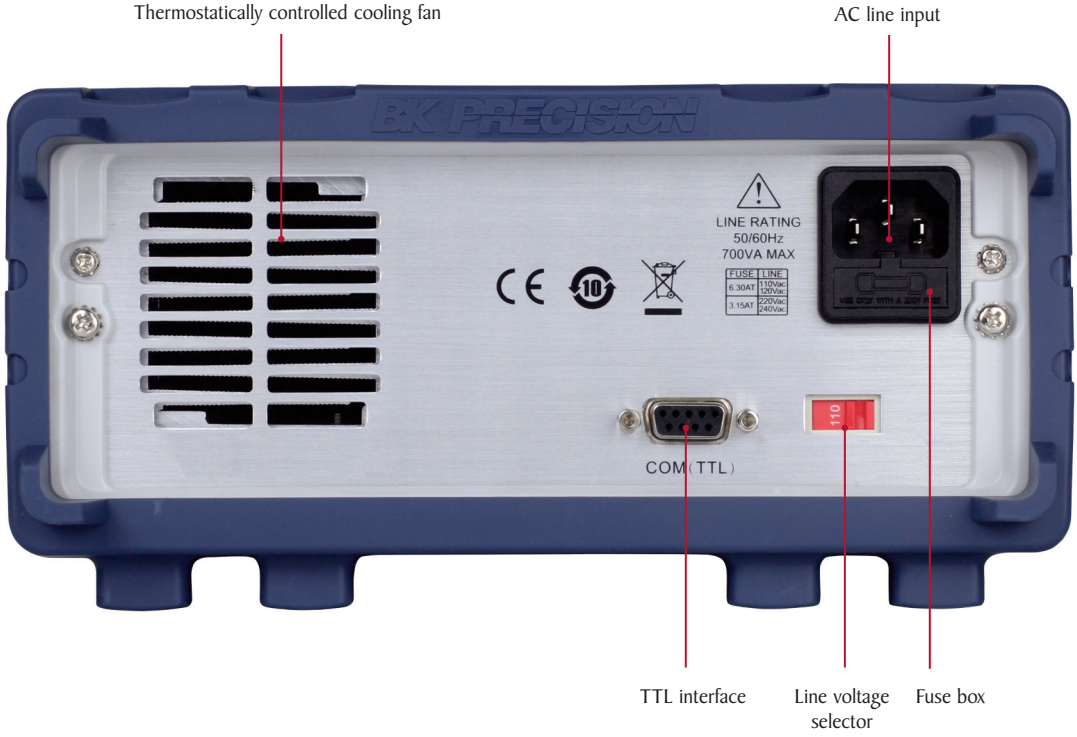
ELECTRONIC TEST INSTRUMENTS

Front panel



Rear panel



Flexible operation

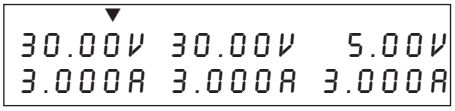
Combined series mode

Channels 1 and 2 can be wired in series to increase the voltage. Selecting series combined mode provides convenient metering of the channels connected in series.

Combined parallel mode

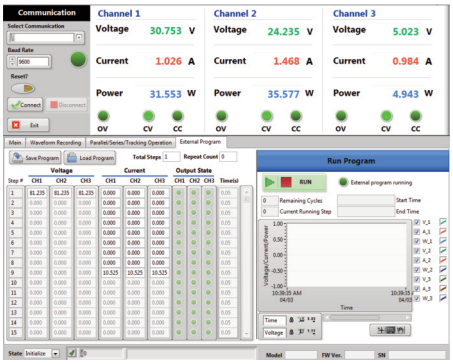
Channels 1 and 2 can be wired in parallel to increase the current. Selecting parallel combined mode provides convenient metering of the channels connected in parallel.

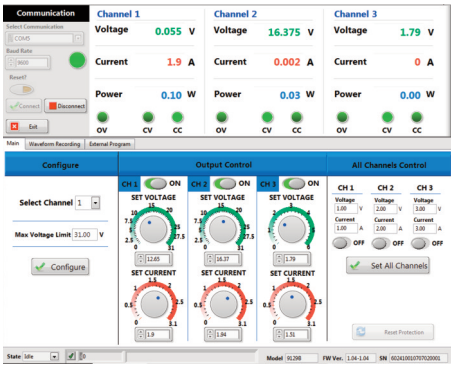
Tracking mode



Tracking mode can be used to simplify adjustments across multiple channels by maintaining a user-defined ratio between outputs. Tracking mode can be set on channels 1 and 2.

Application software



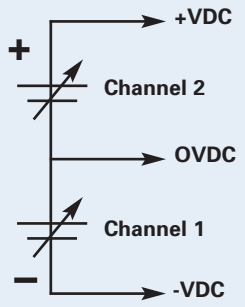


PC software is provided for front panel emulation, generating and executing test sequences or logging measurement data without the need to write source code.

- Remote monitoring on iOS, Android, or Windows 8 compatible tablets or smartphones via NI Data Dashboard for LabVIEW apps.
- Log voltage, current, and power values of each channel as well as timestamp, CV/CC mode, and output status.
- Quickly develop a custom dashboard with indicators, charts, or gauges to monitor your power supply.
- Create an unlimited number of external list files to be executed from PC memory. Save and recall list files to/from the PC.

Bipolar output configuration

The independent and isolated outputs can be used to create positive and negative outputs between channels 1 and 2.



This feature is useful for powering bipolar circuits and devices.

Specifications

Model	9129B
Output Rating	
Voltage	0–30 V (CH1 & CH2), 0-5 V (CH3)
Current	0-3 A (all channels)
Power	195 W
Load Regulation	
Voltage	≤ 0.02 % + 4 mV
Current	≤ 0.2 % + 3 mA
Line Regulation	
Voltage	≤ 0.02 % + 4 mV
Current	≤ 0.2 % +3 mA
Ripple & Noise	
Voltage	≤ 5 mVp-p / ≤1 mVrms
Current	≤ 6 mArms
Programming Resolution	
Voltage	10 mV
Current	1 mA
Readback Resolution	
Voltage	10 mV
Current	1 mA
Programming Accuracy ± (% output + offset)	
Voltage	≤ 0.06 % + 20 mV
Current	≤ 0.2 % + 10 mA
Readback Accuracy ± (% output + offset)	
Voltage	≤ 0.06 % + 20 mV
Current	≤ 0.2 % + 10 mA
Series Accuracy (combined mode)	
Voltage	≤ 0.5 % + 30 mV
Current	≤ 0.2 % + 15 mA
Parallel Accuracy (combined mode)	
Voltage	≤ 0.2 % + 30 mV
Current	≤ 0.2 % + 25 mA
General	
Memory	3 memory groups with 9 locations in each group
Remote Interface	USB (Virtual COM via included USB to TTL serial adapter)
AC Input	110/220 VAC (+/- 10 %), 47 Hz - 63 Hz
Operating Temperature	32 °F to 104 °F (0 °C to 40 °C), relative humidity up to 80%
Storage Temperature	-4 °F to 158 °F (-20 °C to 70 °C)
Dimensions (W x H x D)	8.45" x 3.47" x 13.96" (214.5 x 88.2 x 354.6 mm)
Weight	16.05 lbs. (7.3 kg)
	Three-Year Warranty
Standard Accessories	Power cord, IT-E132B (USB to TTL serial adapter plus USB cable), test report, and certificate of calibration
Optional Accessories	IT-E151 rack mount kit

Note: All specifications apply to the unit after a temperature stabilization time of 15 minutes over an ambient temperature range of 23 °C ± 5 °C.