

DC Voltage/Current Source GS200

The GS200 is a high-accuracy, high-stability, high-resolution DC voltage/current source. The GS200 generates DC voltage and current with excellent traceability and stability, 5.5-digit resolution, and extremely low-noise. The optional monitoring function enables also measurement of voltage and current. Furthermore, the USB storage function and the web server function facilitate programming of output data and collecting of measurement data. This state-of-the-art DC voltage/current source is not only cooperative with personal computers but also effectively utilized on network environments.



FEATURES

- Generation of high-accuracy, high-resolution, low-noise reference DC
The GS200, DC voltage/current source, outputs high-accuracy and high-resolution DC voltage and current by utilizing a dual D-A converter. It has the resolution of 5.5-digit and $\pm 120,000$ count for both voltage and current generation. It also ensures both short-term and long-term stability, and represents excellent linearity throughout all ranges. The high-accuracy dividing voltage method applied in the 100 mV and 10 mV generation ranges achieves extremely low noise of μV order.
- Wide-range operation by source & sink
Four-quadrant operation by source operation (supply of current) and sink operation (absorption of current) up to $\pm 30\text{ V}$, $\pm 200\text{ mA}$ is possible. The operation range during the sink operation is exactly the same as that during the source operation. The GS200 can be used not only as a high-accuracy power source but also as a high-accuracy programmable electronic load.
- Simplified voltage/current monitoring function (option)
The GS200 is equipped with a simplified voltage/current monitoring function (option), as well as a high-accuracy voltage/current output function.
It is possible to monitor the current when voltage is generated and to monitor the voltage when current is generated with measurement resolution of 4.5 digits. These

are convenient functions for measuring consumed current, logging fluctuations of load current, and measuring V-I characteristic.

- Easy programming using the USB storage function
The GS200 can store up to 10,000 steps of source value in internal memory. When connected to a personal computer through a USB interface, the internal memory of the GS200 is recognized as an external storage (USB mass storage) of the personal computer. The source values on the personal computer can be easily transferred to the internal memory of the GS200 by drag-and-drop. In the monitor-equipped model (optional), the monitored values (measured data) are stored in the internal memory together with the source values. The monitored values in internal memory can be easily transferred to a personal computer by drag-and-drop. In addition, the model with monitoring function can serve as a simple V-I curve tracer and data logger owing to the USB storage function.
- Web server function
The web server function (optional) allows the GS200 to be controlled via Ethernet using a general-purpose browser. The internal memory of the GS200 functions as a file server, enabling transfer of the voltage/current generation pattern to the GS200 and reading of the measurement results data from the GS200. The GS200 can be used in a network environment for remote control and data transfer by FTP.

SPECIFICATIONS

- Voltage range: 10 mV/100 mV/1 V/10 V/30 V
- Maximum output current: $\pm 200\text{ mA}$ (ranges of 1 V/10 V/30 V)
- Current range: 1 mA/10 mA/100 mA/200 mA
- Maximum output voltage: $\pm 30\text{ V}$
- Accuracy: $\pm 0.016\%$ of setting + 240 μV (10 V range, 1 year)
 $\pm 0.03\%$ of setting + 5 μA (100 mA range, 1 year)
- Stability: $\pm 0.001\%$ of setting + 20 μV (10 V range, 1 day)
 $\pm 0.004\%$ of setting + 3 μA (100 mA range, 1 day)
- Resolution: 100 nV (DCV, 10 mV range)
10 nA (1 mA range)
- Noise: 100 $\mu\text{Vp-p}$ (10 V range, DC to 10 kHz)
3 $\mu\text{Ap-p}$ (100 mA range, DC to 10 kHz)
- Display: 256 \times 64 dots VFD
- Weight: Approx. 5 kg
- Dimensions: Approx. 213 (W) \times 88 (H) \times 350 (D) mm

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