

# SIM928

## Технические характеристики

### По вопросам продаж и поддержки обращайтесь:

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| Вологда (8172)26-41-59      | Липецк (4742)52-20-81           | Рязань (4912)46-61-64          | Ульяновск (8422)24-23-59  |
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| Иваново (4932)77-34-06      | Мурманск (8152)59-64-93         | Саратов (845)249-38-78         | Челябинск (351)202-03-61  |
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| Россия (495)268-04-70       | Киргизия (996)312-96-26-47      | Казахстан (7172)727-132        |                           |

# Small Instrumentation Modules

SIM928 — Rechargeable isolated voltage source

- $\pm 20$  V isolated voltage source
- Ultra-low noise output
- Two switchable, recharging batteries for continuous operation
- Battery lifetime: 1000 charge cycles
- Output floats to  $\pm 40$  V
- Short-circuit protected



## SIM928 Isolated Voltage Source

The SIM928 Isolated Voltage Source is ideal for applications where ultra-clean DC voltage is required. Voltage can be set between  $\pm 20$  VDC with millivolt resolution, and the source can drive up to  $\pm 10$  mA. The output circuit is optically isolated from all earth-referenced charging circuitry, providing maximum flexibility and noise immunity. The system can float to  $\pm 40$  V, and the output is short-circuit protected.

At the heart of the SIM928 are two independent nickel-metal-hydride rechargeable batteries, each providing up to 12 hours of operation under full-load conditions. When a battery is nearly depleted, the SIM928 automatically switches in a second battery. The switchover between batteries is virtually glitch-free, giving you uninterrupted power around the clock. The depleted battery is automatically charged to capacity in about 5 hours. The batteries are guaranteed for 1000 charging cycles, and SRS offers replacement battery sets.

In applications that occur over long time intervals, starting with a fully charged battery may be desirable. A battery charge override feature allows you to manually switch in the fully charged battery (assuming it is in “ready” state) at any time.

Banana binding posts are provided for the + terminal, – terminal and chassis ground.

**Output**

|                        |   |
|------------------------|---|
| Output range           | $\pm 20$ V, 1 mV resolution                     |
| Max. output current    | $\pm 10$ mA                                     |
| Floating output        | $\pm 40$ V (common mode to ground)              |
| Noise                  | $10 \mu\text{V}_{\text{rms}}$ (1 kHz bandwidth) |
| Current limit          | 15 mA   |
| Short-circuit duration | indefinite                                      |

**Batteries**

|                     |   |
|---------------------|---|
| Number of batteries | 2 (1 operating, 1 charging/standby)                                       |
| Type                | Nickel metal hydride  |
| Charge time         | 5 hrs.  |
| Discharge time      | 12 hrs. (10 mA load)  |
| Lifetime            | >1000 charge cycles, 2 yr. shelf life                                     |
| Battery switching   | Automatically switches batteries when active battery is fully discharged. |

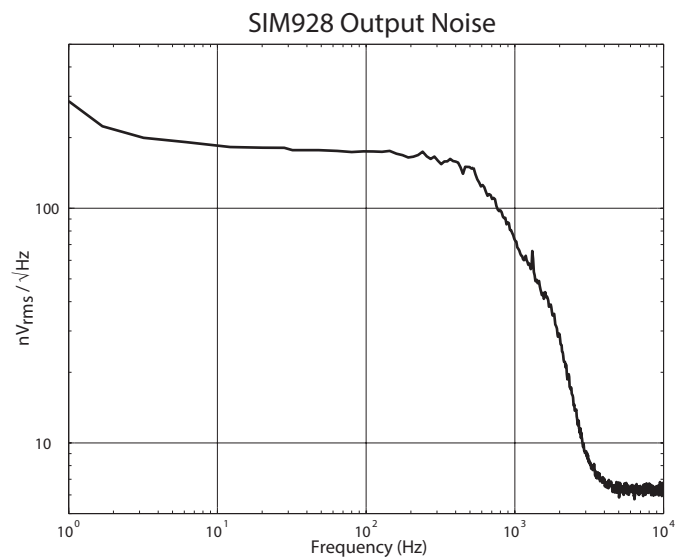
|                         |   |
|-------------------------|---|
| Switchover glitch       | <1 mV for <1 ms   |
| Battery charge override | Allows manual switching of batteries. Triggered when front-panel button is held for 5 seconds or more. Only armed when standby battery is in ready state. |

**General**

|                       |  |
|-----------------------|--|
| Operating temperature | 0°C to 40°C, non-condensing  |
| Interface             | Serial via SIM interface   |
| Connectors            | Banana binding posts (+ terminal, - terminal, and chassis ground)<br>DB15 (male) SIM interface |
| Power                 | Powered by SIM900 Mainframe, or by user-provided DC power supply (+24 V, -15 V and +5 V)       |
| Dimensions            | 1.5" $\times$ 3.6" $\times$ 7.0" (WHD)   |
| Weight                | 3 lbs.   |
| Warranty              | One year parts and labor on defects in materials and workmanship                               |



SIM928 rear panel

**Ordering Information**

|         |                              |
|---------|------------------------------|
| SIM928  | Isolated voltage source      |
| O928RBA | Replacement battery assembly |

# Small Instrumentation Modules

SIM900 Series — Product overview



## SIM900 Series

- SIM mainframe
- Analog PID controller
- AC Resistance bridge
- Bessel/Butterworth filters
- Preamplifiers
- Temperature monitors
- Analog signal conditioning
- Isolated voltage source
- Octal 4-wire multiplexer
- Quad digital voltmeter
- Rubidium frequency standard

SIM — Small Instrumentation Modules — is a compact test and measurement platform for a wide range of applications. Unlike other modular systems, SIM offers complete front-panel as well as remote operation, allowing you to choose between manual and computer control. Up to eight instruments share the same mainframe which provides power, clock synchronization, communications, and module status. For additional versatility, you can cascade mainframes or other RS-232 instruments, and even operate modules outside the mainframe.

With SIM, you configure precision measurement and control systems, achieving the exact functionality you need while avoiding the cost of unnecessary features.

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