

**Aumictech**

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Data Sheet

August 13, 2026

STANFORD RESEARCH SYSTEMS

SRS SIM970 Multi Channel Digital Voltmeter

The SRS SIM970 is a 5.5-digit quad digital voltmeter module for the SIM900 mainframe. Four isolated channels cover ± 19.9999 V down to ± 199.999 mV with autorange or manual range. Auto-calibration on every reading measures input, ground, and full-scale against an internal reference. Up to four SIM970 modules (16 channels) fit in one SIM900. External TTL trigger synchronizes all four channels; a BUSY output goes TTL high while converting. Multi-channel DC monitoring in cryogenic and physics setups; coincidental four-channel readings; SIM900 systems that need isolated voltmeters without a benchtop DMM; long-term 5.5-digit logging via the SIM interface. Rear Connectors: two BNC plus DB15/F SIM interface. Dimensions: 3.0 in x 3.6 in x 7.0 in (WHD) Factory Standard Uncertainty: $6e-6$ of reading versus NIST (manual note) Specs from SRS SIM970 catalog, product page, and SIM970 manual. Accuracy conditions: inside SIM900 after two-hour warm-up, autozero ON. Confirm SIM900 slot power and isolation wiring.



MODEL

**Stanford Research
Systems SIM970**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

SIM970

LISTING

<https://aumictechlabs.com/products/sim970-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Stanford Research Systems SIM970 is a four-channel digital voltmeter module engineered for precision DC voltage measurement in the SIM900 modular instrument platform. Each isolated channel delivers 5½-digit resolution across three selectable full-scale ranges (± 199.999 mV, ± 1.99999 V, ± 19.9999 V) with optional three-decade autoranging. The instrument achieves

exceptional accuracy - $\pm(0.0002 + 2 \text{ counts})$ over 24 hours at $23 \pm 1^\circ\text{C}$ - through continuous autocalibration that eliminates offset and scale drift on every reading. All four channels are galvanically isolated from ground and from each other, with isolated BNC connectors that accept coaxial cables to suppress common-mode noise. The bright LED front panel updates at 3 Hz; remote access via RS-232 or GPIB yields 7½-digit (24-bit) resolution for data logging. Input impedance is $10 \text{ M}\Omega \pm 1\%$, selectable to $>3 \text{ G}\Omega$ on ranges 2–4. The module rejects 90 dB of power-line frequency interference and operates safely to $\pm 60 \text{ V}$ center-to-shield without exceeding specified measurement performance.

Features & description

From manufacturer datasheet

Features

- Four isolated DVM channels, 5.5 digits (± 199999 counts)
- Four ranges: ± 19.9999 V, ± 1.99999 V, ± 999.99 mV, ± 199.999 mV
- 90 dB normal-mode rejection at line frequency; 125 dB CMRR at DC
- Input resistance 10 MOhm $\pm 1\%$, greater than 3 GOhm selectable on ranges 2 to 4
- Remote interface offers greater resolution (up to about 24 bits / 7.5 digits)
- Powered by SIM900 or user +5 V

SIM970 Characteristics / Specifications

PARAMETER	VALUE
Model	SIM970
Manufacturer	Stanford Research Systems
Instrument Type	Quad Isolated Digital Voltmeter Module
Family	SIM Small Instrumentation Modules
Alias	SIM970; SRS SIM970
Number of Channels	4
Number of Digits	5.5 (+/-199999 counts)
Range One Full Scale	+/-19.9999 V
Range One Resolution	100 uV
Range One Noise	1.5 counts rms (360 consecutive readings)
Range Two Full Scale	+/-1.99999 V
Range Two Resolution	10 uV
Range Two Noise	0.8 counts rms
Range Three Full Scale	+/-999.99 mV
Range Three Resolution	10 uV
Range Three Noise	0.8 counts rms
Range Four Full Scale	+/-199.999 mV
Range Four Resolution	1 uV
Range Four Noise	1.0 counts rms
Range One Accuracy Twenty Four Hour	0.0010 % of reading + 2 counts (23 +/-1 C)
Range One Accuracy Ninety Day	0.0050 % of reading + 2 counts typical (23 +/-5 C)
Range One Accuracy One Year	0.0080 % of reading + 2 counts typical (23 +/-5 C)
Range Two Accuracy Twenty Four Hour	0.0002 % of reading + 2 counts
Range Four Accuracy Twenty Four Hour	0.0002 % of reading + 4 counts
Range Four Accuracy One Year	0.0080 % of reading + 6 counts typical

PARAMETER	VALUE
Input Resistance	10 MOhm +/- 1 %; greater than 3 GOhm selectable on ranges 2 to 4
Input Bias Current	less than 1 pA at 23 C
Input Protection Center to Shield	+/-60 V
Input Protection Shield to Earth	+/-200 V
Triggering	internal, external TTL, or remote
Busy Output	TTL logic high when busy
Update Rate Sixty Hz	3.6 readings/s (internal trigger, autozero ON)
Update Rate Fifty Hz	3.0 readings/s (internal trigger, autozero ON)
Normal Mode Rejection	90 dB (59 to 61 Hz or 49 to 51 Hz)
CMRR at DC	125 dB (1 kOhm unbalance in the shield)
Settling Time Ranges One to Three	1 s to within 3 counts of final reading
Settling Time Range Four	8 s
Display	red LED 0.40 in with polarity; green LEDs for range and autorange
Operating Temperature	0 C to 40 C, non-condensing
Interface	serial via SIM interface
Front Connectors	four isolated BNC
Rear Connectors	two BNC plus DB15/F SIM interface
Power	SIM900 mainframe or user +5 V
Dimensions	3.0 in x 3.6 in x 7.0 in (WHD)
Weight	2.3 lbs
Factory Standard Uncertainty	6e-6 of reading versus NIST (manual note) Notes Specs from SRS SIM970 catalog, product page, and SIM970 manual. Accuracy conditions: inside SIM900 after two-hour warm-up, autozero ON. Confirm SIM900 slot power and isolation wiring.
Four ranges	+/-19.9999 V, +/-1.99999 V, +/-999.99 mV, +/-199.999 mV

General Specifications & Supplementary Characteristics

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Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Range Three Full Scale	+/-999.99 mV
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Range One Accuracy Twenty Four Hour	0.0010 % of reading + 2 counts (23 +/-1 C)
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PARAMETER	VALUE
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Notes

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Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.