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Data Sheet

August 13, 2026

STANFORD RESEARCH SYSTEMS

SRS SIM923A Platinum RTD Temperature Monitors

Stanford Research Systems SIM923A Platinum RTD Temperature Monitor The SRS SIM923A isaSIM-series temperature monitor for platinum and other RTDs. Four-wire excitation is 1.0 mA $\pm$ 0.1 % or 10 μ A $\pm$ 0.1 %. Input range is 0 to 1400 ohm at 1 mA (including lead resistance) or 0 to 140 kOhm at 10 μ A. Temperature span is typically 1.4 K to 873 K (sensor dependent). DIN 43760 plus one 256-point user curve convert resistance to temperature. A 4-digit display and analog outputs (scaled $\pm$ 10 V and a 4 kHz monitor) support SIM900 cryogenic racks. The SRS SIM923A isaSIM-series temperature monitor for platinum and other RTDs. Four-wire excitation is 1.0 mA $\pm$ 0.1 % or 10 μ A $\pm$ 0.1 %. Input range is 0 to 1400 ohm at 1 mA (including lead resistance) or 0 to 140 kOhm at 10 μ A. Temperature span is typically 1.4 K to 873 K (sensor dependent). DIN 43760 plus one 256-point user curve convert resistance to temperature. A 4-digit display and analog outputs (scaled $\pm$ 10 V and a 4 kHz monitor) support SIM900 cryogenic racks. Platinum RTD monitoring in cryostats and ovens; 4-wire lab thermometry from millikelvin-class sensors (sensor dependent) to 873 K; SIM900 temperature readout alongside SIM921 bridges or SIM960 PID loops.



MODEL

**Stanford Research
Systems SIM923A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

SIM923A

LISTING

<https://aumictechlabs.com/products/sim923a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The SRS SIM923A is a precision Platinum RTD temperature monitor designed for simultaneous measurement of up to four independent RTD sensors using 4-wire measurement circuits. Part of the SIM modular platform, it delivers both digital and analog outputs for flexible data acquisition and closed-loop control integration. The unit operates from 20 K to 873 K, measuring resistance up to 1400 Ω with factory-calibrated curves for standard Pt-100 sensors and user-programmable custom calibration tables supporting up to 256 points per channel.

Technical Specifications

Channels: 4 independent RTD channels Measurement Type: 4-wire circuit eliminating lead resistance effects Excitation Current: Selectable 10 μ A or 1 mA DC per channel; current reversal capability for offset testing Temperature Range: 20 K to 873 K (Platinum RTD) Resistance Range: 0 to 1400 Ω (sensor + leads) Measurement Rate: Up to 4 readings per second Calibration: Factory DIN 43760 curve; non-volatile memory for custom curves (256 points per channel); remote selection via serial interface Data Display: 4-digit LED; selectable Kelvins or Ohms readout Analog Outputs: Scaled ± 10 V (10 K to 1000 K full-scale); buffered monitor output (raw sensor voltage) Power Supply: ± 15 V DC, +5 V DC Supply Current: 50 mA (± 15 V), 250 mA (+5 V) Serial Interface: RS-232 at 9600 to 38400 Baud standard; supports non-standard rates to 156250 Baud for mainframe integration

Key Features

Independent stable current sources with reversible polarity for diagnostic testing Ratiometric half-bridge measurement principle for temperature conversion Relative mode for expanded resolution of temperature deviations Excitation disable function reduces power dissipation in cryogenic applications Full remote control via RS-232 (8-bit, no parity, 1 stop bit, RTS/CTS flow control)

Typical Applications

Cryogenic temperature monitoring (20 K minimum) Multi-point thermal mapping in laboratory and industrial systems Closed-loop control via SIM960 Analog PID Controller integration

Compatibility & Integration

The SIM923A integrates into the SIM mainframe platform for modular system expansion and operates standalone. Analog outputs directly couple to SIM960 PID controllers for automated temperature regulation.

Features & description

From manufacturer datasheet

Features

- Single 4-wire RTD input (SIM922A is the diode counterpart) • Dual excitation: 1 mA and 10 μ A • DIN 43760 standard curve plus one user curve (256 points) • Measurement rate 5 readings per second • Scaled analog output ± 10 V with 10 K / 100 K / 1000 K full-scale choices • Powered by SIM900 or user ± 15 V and +5 V

SIM923A Characteristics / Specifications

PARAMETER	VALUE
Model	SIM923A
Manufacturer	Stanford Research Systems
Instrument Type	Platinum RTD Temperature Monitor Module
Family	SIM Small Instrumentation Modules
Alias	SIM923A; SRS SIM923A
Number of Inputs	1
Sensor Type	platinum and other RTDs
Measurement Type	4-wire
Excitation High Current	1.0 mA +/-0.1 %
Excitation Low Current	10 uA +/-0.1 %
Sensor Units	ohms
Input Range at One mA	0 ohm to 1400 ohm including excitation lead resistance
Input Range at Ten uA	0 ohm to 140 kOhm including excitation lead resistance
Calibration Curves	DIN 43760 plus 1 user curve, 256 points
Temperature Range Typical	1.4 K to 873 K (sensor dependent)
Display Resolution	4 digits
Interface Resolution at One mA	1 mOhm
Interface Resolution at Ten uA	100 mOhm
Measurement Resolution at One mA	1.2 mOhm rms
Measurement Resolution at Ten uA	120 mOhm rms
Accuracy at Twenty ThreeCOne mA	5 mOhm + 0.01 %
Accuracy at Twenty ThreeCTen uA	0.5 ohm + 0.01 %
Temperature Coefficient	+/-5 ppm/C
Measurement Rate	5 readings per second
Scaled Analog Output Range	+/-10 VDC full scale

PARAMETER	VALUE
Scaled Analog Full Scale Choices	10 K, 100 K, or 1000 K
Scaled Analog Resolution	300 μ V
Scaled Analog Accuracy	1 mV
Monitor Analog Offset	less than 20 μ V typical
Monitor Analog Bandwidth	4 kHz
Operating Temperature	0 C to 40 C, non-condensing
Interface	serial via SIM interface
Sensor Connector	two DB9 female
SIM Connector	DB15 male
Analog Outputs	two BNC (front panel)
Power	SIM900 mainframe or user +/-15 V and +5 V
Dimensions	1.5 in x 3.6 in x 7.0 in (WHL)
Weight	1.4 lbs Notes Specs from SRS SIM922A/SIM923A product page. SIM923A is the RTD monitor; SIM922A is the diode monitor. Confirm excitation current, curve, and SIM900 slot assignment.
Dual excitation	1 mA and 10 μ A
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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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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.