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Data Sheet

August 13, 2026

STANFORD RESEARCH SYSTEMS

Stanford Research SR570

The SRS SR570 is a low-noise transimpedance (current) preamplifier with sensitivity from 1 pA/V to 1 mA/V in a 1-2-5 sequence and vernier. Bandwidth is specified to 1 MHz (± 0.5 dB at 1 mA/V) with front-panel compensation for source capacitance. Two configurable first-order RC filters (0.03 Hz to 1 MHz, 1-3-10 sequence) implement 6 or 12 dB/oct low-pass or high-pass, or a 6 dB/oct band-pass. High-bandwidth, low-noise, and low-drift gain allocations are selectable. The amplifier ground floats; input ground may float to ± 40 V. Internal batteries provide about 15 hours between charges. Photodiode and STM current amplification; lock-in current front-end; floating current measurements; filtered transimpedance gain in physics and bioelectronics; RS-232 listen-only remote setup. Stanford Research Systems SR570 Low-Noise Current Preamplifier

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MODEL

**Stanford Research
Systems SR570**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

SR570

LISTING

<https://aumictechlabs.com/products/sr570-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Stanford Research Systems SR570 is a low-noise current preamplifier engineered to amplify small AC currents with high precision across applications spanning low-temperature physics, electrochemistry, and materials research. It delivers 5 fA/ $\sqrt{\text{Hz}}$ input noise and supports maximum gain of 1 pA/V with bandwidth to 1 MHz, making it suitable for sensitive current measurements in demanding experimental environments.

Technical Specifications

Input Noise: 5 fA/ $\sqrt{\text{Hz}}$ Maximum Gain: 1 pA/V Maximum Bandwidth: 1 MHz Maximum Input Current: ± 5 mA Input Offset Current: Adjustable ± 1 pA to ± 1 mA in approximately 0.1% increments; on/off switchable Input DC Bias Voltage: Adjustable ± 5 V Gain Range: 1 pA/V to 1 mA/V in 1-2-5 sequence with vernier adjustment (0.5% or 1% steps) Filter Cutoff Frequencies: 0.03 Hz to 1 MHz in 1-3-10 sequence AC Power Input: 100 V, 120 V, 220 V, or 240 V nominal (50 or 60 Hz) Battery Operation: Three rechargeable lead-acid batteries; up to 15 hours runtime with internal charger

Key Features

Three gain allocation modes optimize performance: Low-Noise Mode places gain at the front end; High-Bandwidth Mode allocates gain to later stages; Low-Drift Mode reduces DC drift by a factor of 1000 using very low input-current op-amps Dual configurable first-order RC filters support low-pass, high-pass (6 or 12 dB/octave), and band-pass (6 dB/octave) configurations with filter reset for accelerated overload recovery Front-panel source capacitance compensation adjustable to correct frequency response effects Fully floating amplifier ground with amplifier and chassis ground available at rear connectors RS-232 interface (opto-isolated, 9600 baud, DCE format) enables remote control of all functions except power Two opto-isolated TTL inputs provide blanking (gain on/off control) and toggling (synchronous detection via gain sign inversion)

Typical Applications

Low-temperature physics, electrochemistry, materials research, and experiments requiring sub-picoampere current sensitivity.

Compatibility & Integration

RS-232 connectivity supports integration into automated measurement systems. Opto-isolation on all signal inputs ensures immunity to ground loops and external noise sources. Battery operation enables deployment in electromagnetically sensitive environments.

Features & description

From manufacturer datasheet

Features

- Sensitivity 1 pA/V to 1 mA/V (1-2-5) with vernier
- Virtual-null input or user bias ± 5 V; DC offset ± 1 pA to ± 1 mA (catalog) / ± 5 mA full-scale offset (manual)
- Maximum input ± 5 mA; maximum output ± 5 V
- TTL blanking (gain to zero) and polarity toggle
- Rear ± 12 VDC at 200 mA referenced to amplifier ground
- Optically isolated RS-232 listen-only, 9600 baud

SR570 Characteristics / Specifications

PARAMETER	VALUE
Model	SR570
Manufacturer	Stanford Research Systems
Instrument Type	Low-Noise Current Preamplifier
Alias	SR570; SRS SR570
Input Type	virtual null or user-set bias
Bias Voltage Range	-5 V to +5 V
Input Offset Current	+/-1 pA to +/-1 mA adjustable (catalog); +/-1 pA to +/-5 mA full scale (manual)
Maximum Input Current	+/-5 mA
Sensitivity Range	1 pA/V to 1 mA/V in a 1-2-5 sequence
Vernier Catalog	0.5 % steps
Vernier Manual	1 % steps
Frequency Response	+/-0.5 dB to 1 MHz (1 mA/V sensitivity; front-panel source-C compensation)
Amplifier Ground	fully floating
Input Ground Float	up to +/-40 V
Gain Accuracy	+/- (0.5 % of output + 10 mV) at 25 C (catalog); +10 mV or +50 mV High BW per manual notes
Maximum Output	+/-5 V into a high-impedance load
Output Impedance	50 ohm (manual)
Slew Rate Limit	2 V peak-to-peak at 1 MHz (manual)
Filter Count	2 configurable (low-pass or high-pass)
Filter Rolloff	6 dB/oct each; 6 or 12 dB/oct combined LP/HP; or 6 dB/oct band-pass
Filter Cutoff Range	0.03 Hz to 1 MHz in a 1-3-10 sequence
Blanking Input	TTL sets gain to zero
Toggle Input	TTL inverts gain polarity
Rear Bias Supplies	+/-12 VDC at 200 mA, referenced to amplifier ground

PARAMETER	VALUE
Computer Interface	RS-232 listen only, 9600 baud, DCE, 8 bit, no parity, 2 stop bits, optically isolated
Operating Temperature	0 C to 50 C (manual)
Line Voltage	100/120/220/240 VAC, 50/60 Hz
Power Charging	30 W while charging
Power Charged	6 W charged
Battery Operation	15 hours typical between charges; batteries charge on line
Dimensions	8.3 in x 3.5 in x 13.0 in (WHD)
Weight	15 lbs with batteries installed
High Bandwidth Mode	gain allocated to later stages for improved front-end frequency response
Low Drift Mode	input amplifier replaced with very low input-current op amp; DC drift reduced by a factor of 1000 (catalog)
Rack Mount	hardware available Notes Specs from SRS SR570 catalog and SR570 manual. Catalog and manual differ on vernier step (0.5 % vs 1 %) and offset-current full scale; record both. Current-noise density versus sensitivity is graphed in the OEM datasheet rather than as a single number; use the graph on the faceplate/manual for the selected gain.
Bandwidth	is specified to 1 MHz (+/-0.5 dB at 1 mA/V) with front-panel compensation for source capacitance. Two configurable first-order RC filters (0.03 Hz to 1 MHz, 1-3-10 sequence) implement 6 or 12 dB/oct low-pass or high-pass, or a 6 dB/oct band-pass. Hig

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 C to 50 C (manual)
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Line Voltage	100/120/220/240 VAC, 50/60 Hz
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Power Charged	6 W charged
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Dimensions	8.3 in x 3.5 in x 13.0 in (WHD)
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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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Manufacturer	Stanford Research Systems
Instrument Type	Low-Noise Current Preamplifier
Alias	SR570; SRS SR570
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Bias Voltage Range	-5 V to +5 V
Input Offset Current	+/-1 pA to +/-1 mA adjustable (catalog); +/-1 pA to +/-5 mA full scale (manual)
Maximum Input Current	+/-5 mA
Sensitivity Range	1 pA/V to 1 mA/V in a 1-2-5 sequence
Vernier Catalog	0.5 % steps
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Frequency Response	+/-0.5 dB to 1 MHz (1 mA/V sensitivity; front-panel source-C compensation)
Amplifier Ground	fully floating
Input Ground Float	up to +/-40 V
Gain Accuracy	+/- (0.5 % of output + 10 mV) at 25 C (catalog); +10 mV or +50 mV High BW per manual notes
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Computer Interface	RS-232 listen only, 9600 baud, DCE, 8 bit, no parity, 2 stop bits, optically isolated
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Low Drift Mode	input amplifier replaced with very low input-current op amp; DC drift reduced by a factor of 1000 (catalog)
Rack Mount	hardware available

Notes

Specs from SRS SR570 catalog and SR570 manual. Catalog and manual differ on vernier step (0.5 % vs 1 %) and offset-current full scale; record both. Current-noise density versus sensitivity is graphed in the OEM datasheet rather than a single number; use the graph on the faceplate/manual for the selected gain.

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.