

Lock-In Preamplifier

SR556 — Current preamplifier



- 1 V/nA fixed gain
- 5 fA/√Hz input noise
- Bias voltage input
- Powered by SRS lock-in amplifiers

SR556 Specifications

The SR556 is a low-noise, high-bandwidth, fixed-gain current (trans-impedance) amplifier designed to work with SRS lockin amplifiers. Current amplifiers provide gain close to the experimental detector, allowing the user to minimize input cable length and its corresponding input capacitance. The SR556 minimizes noise and pickup before they permanently degrade the signal-to-noise ratio, reducing measurement time in noise-limited experiments. Power is brought from the lock-in by a 9-pin cable. The SR556 can also be operated independently by applying the appropriate DC power.

Gain 10^9 V/A

Bandwidth

Ordering Information

SR556 Lock-in preamplifier

Current input

Impedance $<50 \Omega$

Bias current <3 pA

DC bias input

Range ± 5 VDC

Settling time <250 ms

Impedance 1 M Ω

Gain accuracy 1 %

Gain stability ± 50 ppm/ $^{\circ}$ C

Output 20 Vpp max. balanced differential
 10 mA max., 50Ω

Power Supplied by SR510, SR530, SR810,
SR830, SR850 or SR124 via
control cable

Mechanical $3.0" \times 1.3" \times 5.1"$ (WHD)

Weight 10 oz.

Warranty One year parts and labor on defects
in materials and workmanship

Input noise (typ.)	$3\text{ kHz } (-3\text{ dB})$ $\text{fA}/\sqrt{\text{Hz}} \text{ at } 1\text{ kHz}$
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