Lock-In Preamplifier

SR552 — BJT input preamplifier

The SR552 Voltage Preamplifier is designed to work with SRS lock-in amplifiers, providing gain where it is needed most—right at the experiment. The preamplifier minimizes noise and pickup in the connecting lines and can reduce measurement time in noise-limited experiments. The SR552 has a bipolar front-end design (100 kΩ impedance, 1.4 nV/√Hz noise). Power and control signals are brought from the lock-in by a 9-pin cable (included). The SR552 may also be operated independently by applying appropriate power supply voltages (±20 VDC, ±5 VDC).

* 1.4 nV/√Hz input noise
* BJT input, 100 kΩ input impedance
* Gain of 10, 20, 50 or 100
* Single-ended and differential inputs
* AC coupled input
* Powered by SRS lock-in amplifiers

**SR552 Specifications**

- Input impedance: 100 kΩ + 25 pF
- Inputs: Single-ended or differential
- Maximum input: 70 mV rms for overload
- Noise (typ.): 1.4 nV/√Hz at 1 kHz, 1.6 nV/√Hz at 100 Hz, 2.5 nV/√Hz at 10 Hz
- Coupling: AC (0.016 Hz)
- CMRR (1 V input): 100 dB at 100 Hz
- Gain: 10, 20, 50, 100 (Automatically set by SR510 or SR530 lock-in)
- Full-scale input: 10 nV to 200 mV
- Gain accuracy: 2% (2 Hz to 100 kHz)
- Gain stability: 200 ppm/°C
- Outputs: A (signal, 600Ω, single-ended), B (shielded ground)
- Maximum output: 10 Vpp
- Power: Supplied by SR510, SR530, SR810, SR830, SR850 or SR124 via control cable
- Mechanical: 3.0" x 1.3" x 5.1" (WHD)
- Weight: 1 lbs.
- Warranty: One year parts and labor on defects in materials and workmanship

**Ordering Information**

SR552  Lock-in preamplifier  $750