

NCS21911

Precision Operational Amplifier, 2 MHz Bandwidth, Low Noise, Zero-Drift, 25 μ V Offset



Product Overview

For complete documentation, see the data sheet.

The NCS2191x family of high precision Zero-Drift Op Amps feature low input offset voltage and low offset drift over time and temperature. These devices have low quiescent current and low noise performance with a rail-to-rail output swing within 10 mV of the rails. The NCS21911 operates over a wide supply range from 4 V to 36 V. All versions are specified for operation from -40°C to +125°C. **Automotive qualified options are available under the NCV prefix.**

Product Family:

| | NCS21911 | NCS21912 | NCS21914 |
|----------|--------------------------|--------------------------|--------------------------|
| Channel | 1 | 2 | 4 |
| Packages | SOT23-5 | SOIC-8, Micro-8 | TSSOP-14, SOIC-14 |

Features

- Low Offset Voltage: 25 μ V Max
- Low Offset Drift: 0.085 μ V/°C max
- Supply Voltage: 4 to 36V
- Quiescent Current: 570 μ A Max
- Low Noise: 22 nV/ \sqrt Hz typical
- Gain-Bandwidth Product: 2 MHz typical
- Rail-to-Rail Output
- Integrated EMI Filters

Applications

- Temperature Monitoring
- Transducer Applications
- Electronic Scales
- Medical Instrumentation
- Current Sensing







Benefits

- Low error at the output
- Higher accuracy over temperature
- Wide supply voltage range
- Low Power consumption
- Precision performance
- Higher speed with good slew rate

End Products

- Power Supplies
- Traction Inverters
- Motor Control
- Sensor Interface

Part Electrical Specifications

| Product | Pricing (\$/Unit) | Compliance | Status | Rail to Rail | Channels | V _S Min (V) | V _S Max (V) | I _a Typ (mA) | V _{OS} Max (mV) | GBW Typ (MHz) | SR Typ (V/μs) | I _o Typ (mA) | ΔV _{OS} /ΔT (μV/C) | e _N (nV/√Hz) | I _{bias} Typ (pA) | CMRR Typ (dB) | Architecture | Temperature Range (°C) | Package Type |
|----------------|-------------------|--|--------|--------------|----------|------------------------|------------------------|-------------------------|--------------------------|---------------|---------------|-------------------------|-----------------------------|-------------------------|----------------------------|---------------|--------------|------------------------|------------------|
| NCS21911SN2T1G | 0.45 |   | Active | Output | 1 | 4 | 36 | 0.475 | 0.025 | 2 | 1.6 | 16 | 0.02 | 22 | 100 | 130 | CMOS | -40 to 125 | TSOP-5/SO-T-23-5 |
| NCV21911SN2T1G | 0.522 |     | Active | Output | 1 | 4 | 36 | 0.475 | 0.025 | 2 | 1.6 | 16 | 0.02 | 22 | 100 | 130 | CMOS | -40 to 125 | TSOP-5/SO-T-23-5 |