



## AMP771 Low Offset RRO Operational Amplifier

### General Description

The AMP771 is Single low noise precision operational amplifiers intended for use in a wide range of applications. The AMP771 can operation in temperature range of  $-40^{\circ}\text{C}$  to  $125^{\circ}\text{C}$  with low input bias current. AMP771 is characterized to operate supply voltage range 2.7V to 5V with operating temperature range of  $-40^{\circ}\text{C}$  to  $85^{\circ}\text{C}$ .

The AMP771 is designed for precision, low noise, low voltage, and miniature systems. It provides rail-to-rail output swing into heavy loads. The maximum input offset voltage for the AMP771 is TBD  $\mu\text{V}$  at room temperature and the input common mode voltage range includes ground.

### Key Specification

|                     |   |
|---------------------|---|
| ■ Voltage Range     | $2.7\text{V} \leq V_{CC} \leq 5.5\text{V}$    |
| ■ $V_{OS(max)}$     | TBD $\mu\text{V}$                             |
| ■ $V_{CM(max)}$     | 0 to $V_{CC} - 0.9\text{V}$                   |
| ■ Bandwidth         | 3.5MHz  |
| ■ Temperature Range | $-40^{\circ}\text{C}$ to $85^{\circ}\text{C}$ |

### Features

- Low Voltage noise
- Rail-to-rail output

### Applications

- Transducer amplifier
- Instrumentation amplifier
- Precision current sensing
- Data acquisition systems
- Active filters and buffers
- Sample and hold
- Portable/Battery Powered electronics

### Schematic Diagram

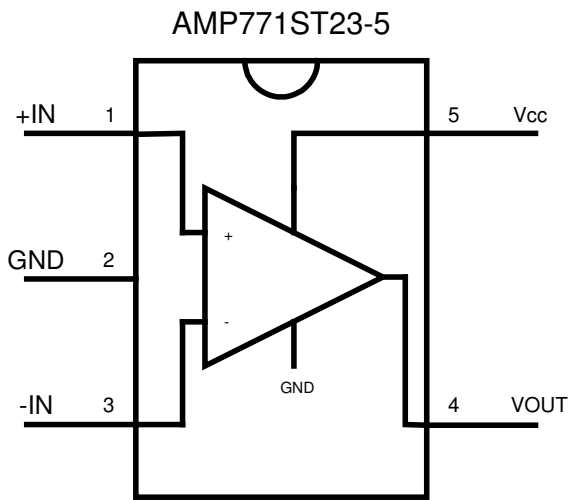


Figure 1 AMP771 Low Offset RRO Operational Amplifier

### Instrumentation Amplifier

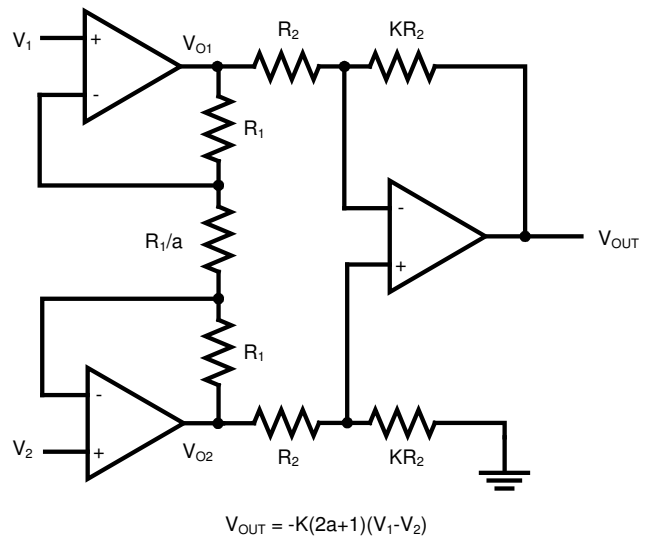
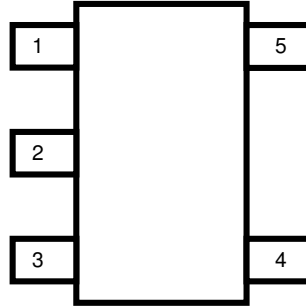


Figure 2 Application Example circuit

## Pin Assignment

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AMP771ST23-5 (Top View)

| Pin No. | Pin Name         | Type | Description                 |
|---------|------------------|------|-----------------------------|
| 1       | +IN              | I    | Positive Differential Input |
| 2       | GND              | I    | Ground                      |
| 3       | -IN              | I    | Negative Differential Input |
| 4       | V <sub>OUT</sub> | O    | Positive Output             |
| 5       | V <sub>CC</sub>  | I    | Power Supply                |

### Operation Conditions

| Parameter                   | Symbol          | Min | Typ | Max | Unit |
|-----------------------------|-----------------|-----|-----|-----|------|
| Power Supply Voltage        | V <sub>CC</sub> | 2.7 |     | 5.5 | V    |
| Operating Temperature Range | T <sub>A</sub>  | -40 |     | 85  | °C   |

### Ordering Information

| Part Number  | Package        | Marking <sup>+</sup> |
|--------------|----------------|----------------------|
| AMP771ST23-5 | 5-lead SOT23-5 | A771S XYZ            |
|              |                |                      |

+ XYZ = assembly and date code