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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 $-40\,°C$ to $125\,°C$ with low input bias current. AMP771 is characterized to operate supply voltage range 2.7V to 5V with operating temperature range of $-40\,°C$ to $85\,°C$.

The AMP771is 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 μV at room temperature and the input common mode voltage range includes ground.

Key Specification

- Voltage Range $2.7V \leq V_{CC} \leq 5.5V$
- $V_{OS(max)}$ TBDμV
- $V_{CM(max)}$ 0 to $V_{CC} - 0.9V$
- Bandwidth 3.5MHz
- Temperature Range $-40\,°C$ to $85\,°C$

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
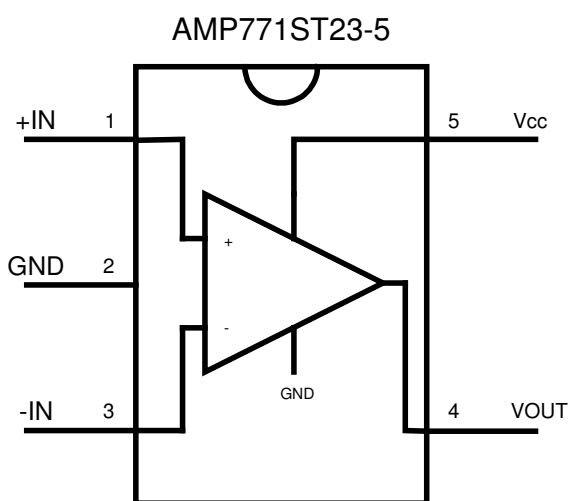
Schematic Diagram

AMP771ST23-5

Pin	Signal
+IN	1
GND	2
-IN	3
Vcc	5
VOUT	4

Figure 1 AMP771 Low Offset RRO Operational Amplifier

Instrumentation Amplifier

$$V_{OUT} = -K(2a+1)(V_1-V_2)$$
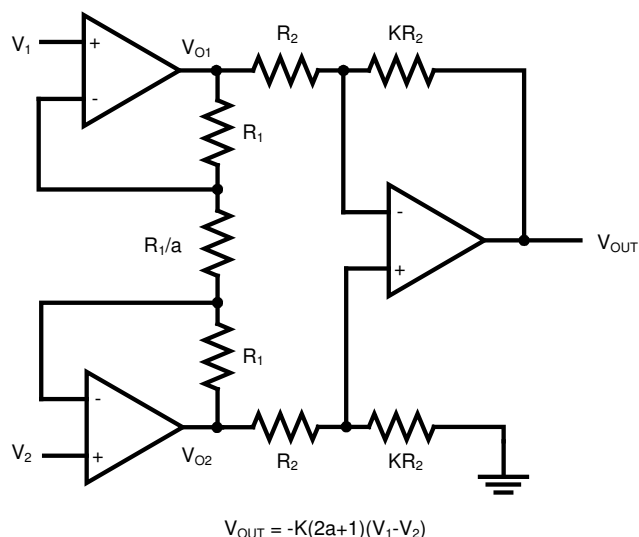
Figure 2 Application Example circuit

Pin Assignment

```
   ┌───────┐
 1 │       │ 5
   │       │
 2 │       │
   │       │
 3 │       │ 4
   └───────┘
```
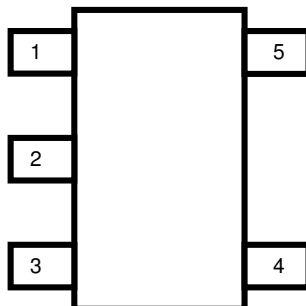
AMP771ST23-5 (Top View)

Pin No.	Pin Name	Type	Description
1	+IN	I	Positive Differential Input
2	GND	I	Ground
3	-IN	I	Negative Differential Input
4	V_{OUT}	O	Positive Output
5	V_{CC}	I	Power Supply

Operation Conditions

Parameter	Symbol	Min	Typ	Max	Unit
Power Supply Voltage	V_{CC}	2.7		5.5	V
Operating Temperature Range	T_A	-40		85	°C

Ordering Information

Part Number	Package	Marking[+]
AMP771ST23-5	5-lead SOT23-5	A771S XYZ

+ XYZ = assembly and date code