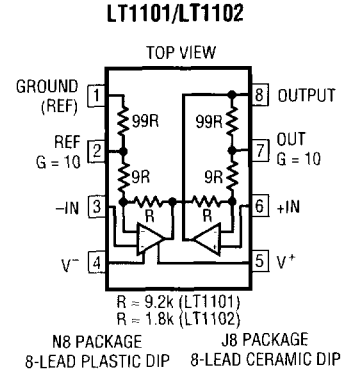
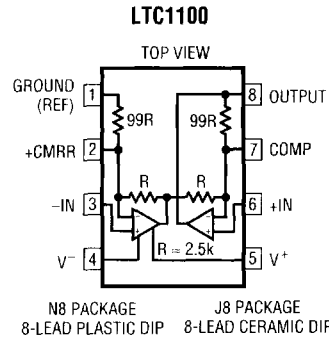


Instrumentation Amplifiers

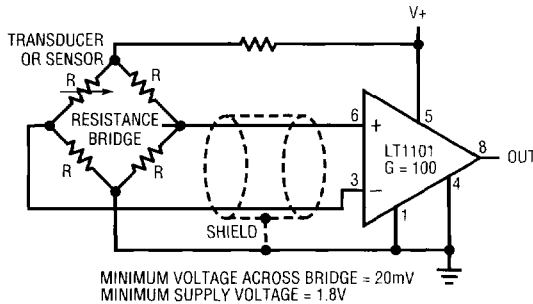
Complete Instrumentation Amplifiers in 8-Pin Packages

- LTC1100: Zero Offset, Drift; Gain of 100
- LT1101: Micropower, Single Supply; Gain of 10 or 100
- LT1102: High Speed JFET Input; Gain of 10 or 100

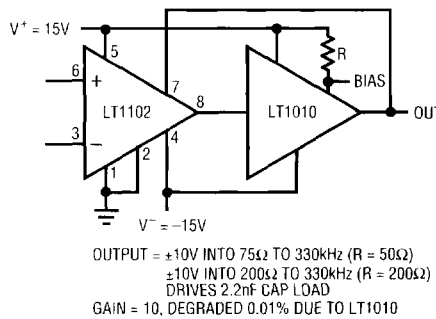
PARAMETER	LTC1100A $V_S = \pm 5V$	LT1101A $V_S = 5V$	LT1102A $V_S = \pm 15V$
Offset (Max)	10 μ V	160 μ V	600 μ V
Offset Drift (Max)	100nV/ $^{\circ}$ C	2 μ V/ $^{\circ}$ C	8 μ V/ $^{\circ}$ C
Bias Current (Max)	50pA	8nA	40pA
Noise (0.1Hz to 10Hz)	1.9 μ V _{p-p} Typ	0.9 μ V _{p-p} Typ	2.8 μ V _{p-p} Typ
Gain	100/10 (SOL PKG)	10/100	10/100
Gain Error (Max)	0.05%	0.05%	0.05%
Gain Drift	4ppm/ $^{\circ}$ C Typ	4ppm/ $^{\circ}$ C Max	18ppm/ $^{\circ}$ C Max
Gain Nonlinearity (Max)	8ppm	8ppm	14ppm
CMRR (G = 100)(Min)	104dB	95dB	84dB
Power Supply (Max)	Single, Dual, 16V	Single, Dual, 44V	Dual, 44V
Supply Current (Max)	2.8mA	130 μ A	5mA
Slew Rate	1.5V/ μ s Typ	0.06V/ μ s Min	21V/ μ s Min (6:10)
Bandwidth (G = 10)	18kHz Typ	22kHz Min	2MHz Min



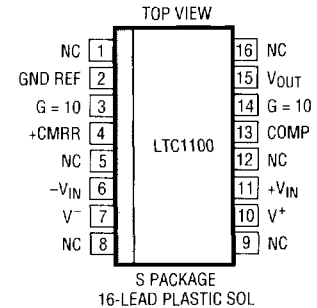
Differential Voltage Amplification from a Resistance Bridge (Single 5V Powered)



Wideband Instrumentation Amplifier with $\pm 150mA$ Output Current



LTC1100CS

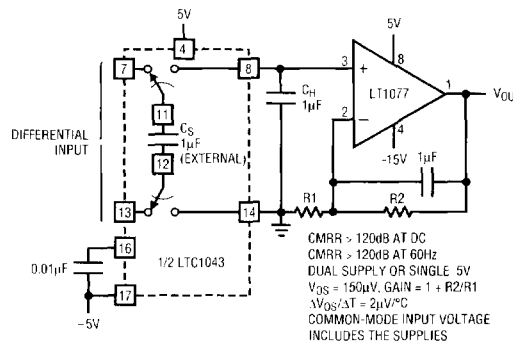


Dual Precision Instrumentation Switched Capacitor Building Block: LTC1043

- Up to 120dB CMRR
- Adjustable Gain-Set by Output Op Amp
- Offset and Offset Drift as Low as Output Amp Specs
- Precise, Charge-Balanced Switching
- Up to 5MHz Clock Rate
- Internal or External Clock

PARAMETER	LTC1043 (USING LTC1050 AMPLIFIER)
Offset	0.5 μ V
Offset Drift	50nV/ $^{\circ}$ C
Bias Current	10pA
Noise (0.1Hz to 10Hz)	1.6 μ V
Gain	Resistor Programmable
Gain Error	Resistor Limited 0.001% Possible
Gain Drift	Resistor Limited <1ppm/ $^{\circ}$ C Possible
Gain Nonlinearity	Resistor Limited 1ppm Possible
CMRR	120dB
Power Supply	Single, Dual (18V, $\pm 9V$ Max)
Supply Current	2mA
Slew Rate	1mV/ms
Bandwidth	10Hz

Instrumentation Amplifier



CMRR vs Frequency

