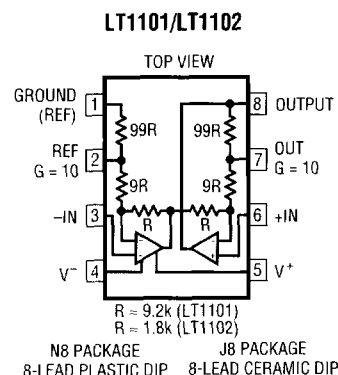
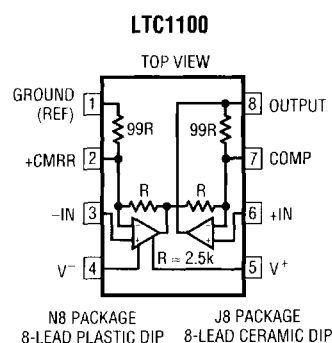


Instrumentation Amplifiers

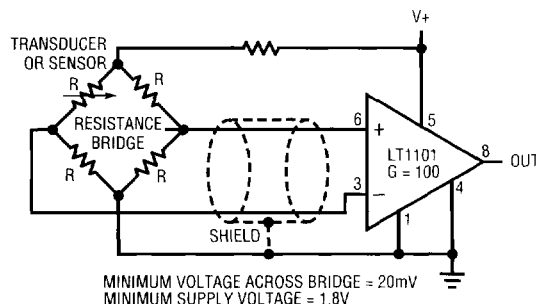
Complete Instrumentation Amplifiers in 8-Pin Packages

- 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

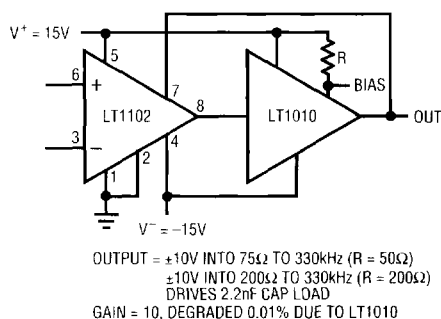
PARAMETER	LTC1100A V _S = ±5V	LT1101A V _S = 5V	LT1102A V _S = ±15V
Offset (Max)	10μV	160μV	600μV
Offset Drift (Max)	100nV/°C	2μV/°C	8μV/°C
Bias Current (Max)	50pA	8nA	40pA
Noise (0.1Hz to 10Hz)	1.9μV _{P-P} Typ	0.9μV _{P-P} Typ	2.8μV _{P-P} Typ
Gain	100/10 (SOL PKG)	10/100	10/100
Gain Error (Max)	0.05%	0.05%	0.05%
Gain Drift	4ppm/°C Typ	4ppm/°C Max	18ppm/°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	130μA	5mA
Slew Rate	1.5V/μs Typ	0.06V/μs Min	21V/μs Min (6:10)
Bandwidth (G = 10)	18kHz Typ	22kHz Min	2MHz Min



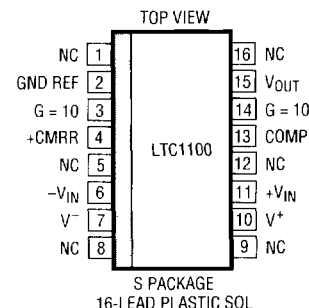
Differential Voltage Amplification from a Resistance Bridge (Single 5V Powered)



Wideband Instrumentation Amplifier with $\pm 150\text{mA}$ Output Current



LTC1100CS

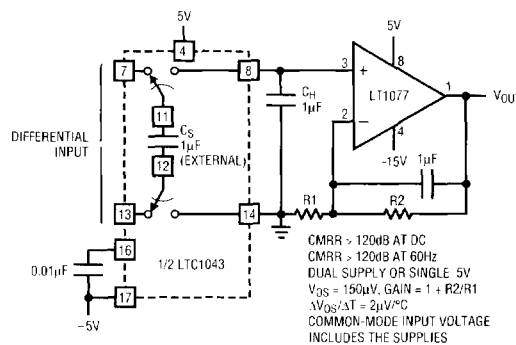


Dual Precision Instrumentation Switched Capacitor Building Block: LTC1043

- 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

LTC1043 (USING LTC1050 AMPLIFIER)	
Offset	0.5 μ V
Offset Drift	50nV/ $^{\circ}$ C
Bias Current	10pA
Noise (0.1Hzk 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

