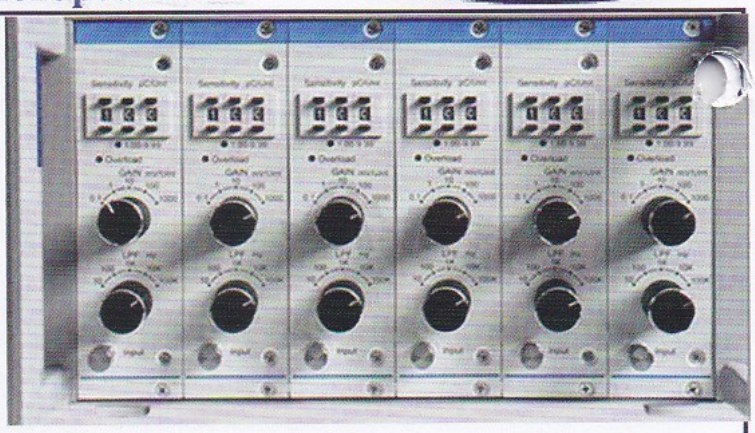
Multi-Channel Charge Amplifier

PolyK @ State College, PA, USA www.piezopvdf.com

This charge amplifier is designed for multi-channel input module that can be simply plugged into the main frame to simultaneously monitor multiple piezo sensor input.

It is a versatile preamplifier for use with piezoelectric sensors. The electric signal from the piezo film is generated within the electrodes of a capacitor. It is important to arrange an input that controls the rate of charge leakage appropriately for the application. Simply connecting a piezo film element to the input of an oscilloscope will usually create a high-pass filter that removes any low frequency content of the original piezo signal, and this can lead to disappointment or incorrect evaluation of the material's true potential. This has led to a new low-cost charge amplifier, specifically aimed at developers and engineers exploring the material. Both first-time users and seasoned professionals will benefit from the wide range of sensitivity adjustment in either voltage or charge modes, and the functionality of the high- and low-pass filters.



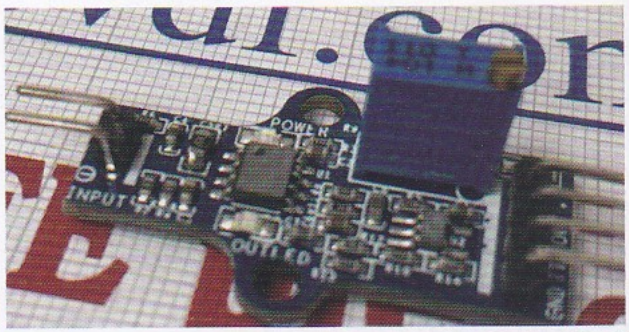
Applications

- Low Frequency Dynamic Strain
- Pyroelectric Signals
- Audio-band and Acoustic Signals
- Machine Vibration
- Piezo Cable and Traffic Sensor Interface

Specifications

1. BNC Input and Output
2. Multi-channel in one unit, up to 6 channels.
3. Maximal input charge up to 100 nC
4. Output signal up to ±10 V
5. Input charge range 0.1; 1; 3; 10; 30; 100; 300; 1000mV/pC [0.1 mV/pC sensitivity = 100 nC max charge input assuming 10 V output)
6. Low Pass Filter: 1k; 3k; 10k; 30k; 100kHz
7. High Pass filter: 0.3 Hz
8. Operation Temperature: 0 to 40 °C. Storage temperature: -55 to 85 °C
9. 18VDC Power Supply
10. Dimension: 236mm (W) ×132.5mm (H) ×300mm(D)

Other Models



Customized solution for sensor test electronics

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