

AC-916 Bioamplifier

The AC-916 Bioamplifier is a SYSTEM 2000 plug-in module for amplifying EEG, ECG, EMG, and other low-level extracellular electrophysiological signals. It features exceptionally low noise, a wide gain range, and sharp cutoff bandpass filters. Up to sixteen AC-916 modules can be installed in one CC-2000 card-cage for rack mounting.

The AC-916 features a true instrumentation amplifier differential front-end, for the lowest noise and best rejection of spurious signals. Gain is adjustable from 20X - 100,000X in 12 steps, making it possible to resolve signals as small as a few microvolts in amplitude.

The individual channel inputs and outputs are connected to multi-pin connectors on the rear panel of the CC-2000 card-cage for convenient cable connections. Pre-wired input cables are available which simplify input electrode connections.

Applications for the AC-916 Bioamplifier include multi-channel EEG, EMG, and other extracellular biopotential measurements. The CC-2000 card-cage output connector is directly compatible with the PC-based WinDag 16-channel data acquisition system, which is available as an option.

Specifications: (Note 1)

Input type	Differential or single-ended, switchable
Input range for full-scale output	$\pm 100\mu\text{V} - 0.5\text{V}$
Input impedance	$>10,000\text{M}\Omega$
Noise, referred to input	$<5\mu\text{V}$ P-P, wideband
Common Mode Rejection	$>95\text{dB}$
Gain range	20X - 100,000X, 12-positions
Low-pass filter	10Hz - 50kHz, 6-positions
High-pass filter	0.1Hz - 300Hz, 6-positions
Filter type, slope	Butterworth, flattest response, -12dB/octave
Stim/record input	TTL
Input connections	on rear edge-card connector
Output connections	on rear edge-card connector
Power requirements	$\pm 12\text{VDC}$ @20mA
Dimensions	0.98W x 5.25H inches (25W x 133H mm)

Note 1: Not to be used for human life support applications.

Ordering Information:

Model	Description	Applications
AC-916	AC Bioamplifier plug-in module	EEG, ECG, EMG biopotential recording
CC-2000	Card-cage w/ power supply	Holds up to 16 plug-in modules
ICA-916	Input cable assembly w/ pin-jacks	Input cable for EEG, etc.
OCA-916	Output cable assembly w/ BNC	Output cable for general purpose use

