

BMA-400 AC/DC Bioamplifier

Full-featured, low-noise 4-channel extracellular amplifier



The BMA-400 AC/DC Bioamplifier is a low-noise, four-channel instrument for amplifying EEG, ECG, EMG, and other extracellular biopotential signals. It features exceptionally low noise, a wide gain range, and sharp cutoff bandpass filters. It can be used as a stable DC amplifier, and includes adjustable DC input offset controls.

The BMA-400 features a high-impedance instrumentation amplifier differential front-end, for the lowest noise and best rejection of spurious signals. Gain is adjustable from 10X - 50,000X, extensible to 500,000X with optional head-stages, making it possible to resolve microvolt level signals with ease.

A special logic input allows a stimulus to be passed

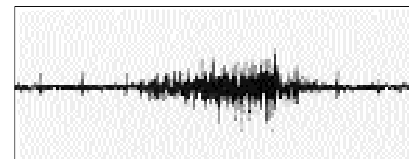
through the recording electrodes. This stim/record input, as well as the four channel outputs, are connected to a multi-pin connector on the rear panel for convenient cable connections.

Four input connectors are provided for custom wiring of the inputs. Pre-wired cables are available as an option. Applications for the BMA-400 Bioamplifier include multi-channel EEG, EMG, and other extracellular biopotential measurements. For recording from human subjects, optional ISO-Z Isolation Amplifier head-stages are available. For high-impedance microelectrode work, the SUPER-Z head-stage is available, which provides a calibrator as well as additional gain and buffering.

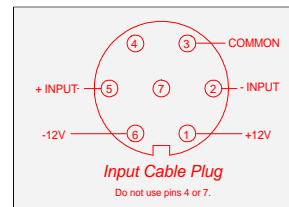
SPECIFICATIONS: (Note 1)

Input type	Differential
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	10X - 50,000X, 12-positions
Low-pass filter	100Hz - 50kHz, 6-positions
High-pass filter	DC - 100Hz, 6-positions
Filter type, slope	Butterworth, flattest response, -12dB/octave
Stim/record input	TTL
Input connections (rear panel)	Amphenol 703-91T-3478-009 7-pin
Output connections (rear panel)	BNC jack
Data port connector (rear panel)	25-pin D-SUB female
Power requirements	115/230VAC, 10VA
Dimensions	12W x 4H x 9D inches, 30 x 10 x 23 cm

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



Feline diaphragm EMG



ORDERING INFORMATION

Model	Description	Applications
BMA-400	AC/DC 4-channel bioamplifier	EEG, ECG, EMG biopotential recording
ISO-Z	Isolation amplifier head-stage	Human subject recording
SUPER-Z	High-impedance head-stage	X10 gain with calibrator
BMA-400/ICA	Input cable, one channel	Pre-wired cable, 9' with pin-jacks

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