DATAQ INSTRUMENTS

BMA-931 Bioamp

- **High gain to x50,000 (up to 500,000 with a head-stage)**
- **Balanced differential inputs for low noise measurements**
- **Selectable high-pass and low-pass corner frequencies**
- **Applicable to a wide range of biopotential measurements (EMG, ECG, EOG, etc.)**
- **Selectable AC/DC coupling**

The BMA-931 is a high performance, low noise AC/DC preamplifier. It's well-suited for conditioning a variety of biopotential signals, including ECG, EEG, EMG, EGG, ENG, and evoked potentials. The modular design, wide gain range, sharp cutoff bandpass filters, and true DC response make the BMA-931 an excellent choice as a primary recording amplifier. Plugging the low-noise ISO-Z Isolated Head-Stage into the BMA-931 makes an ideal combination for recording signals from human subjects. For high-impedance intracellular or extracellular microelectrode work, just plug the Super-Z Ultra High Input Impedance Head-Stage into the BMA-931. When isolation or ultrahigh input impedance aren't required, the BMA-931 can be used alone for economical performance.

Specifications:*			
Input type:	Differential, balanced to chassis common	Low frequency filter:	DC - 300Hz, 6 positions
Input range:	±6V	Input connector:	Amphenol, 7-pin socket
Input impedance:	$>10^9\Omega$	Output range:	±10V
Wideband noise (referred to input):	<5µv P-P	Output offset (position) range:	±3V
Common mode rejection:	>110db @ 60Hz	Output connector:	BNC
Gain range:	50 - 50,000, 10 steps**	Power requirements:	±12VDC @50ma
Filter cutoff slope:	-12db/octave	Dimensions:	2.75" × 5" × 10"
High frequency filter:	100 - 50,000 Hz, 6 positions		

*The BMA-931 IS NOT to be used for human life support applications.
**Gain extended to x500,000 with head-stage

Direct Product Links

(click on text to jump to page)

Data Acquisition | *Data Logger* | *Chart Recorder* | *Thermocouple* | *Oscilloscope*

ISO-Z Isolated Amplifier Head-Stage

- **Provides medical-grade isolation for the BMA-931**
- **Built-in calibration signal**
- **Provides an additional gain stage of x10**
- **Supplied, long interconnecting cable allows headstage location at the signal source**

The ISO-Z is a low noise, high impedance amplifier head-stage. It's designed to plug into the BMA-931 Bioamplifier Module for applications where it's necessary or desirable to isolate the subject from the data acquisition system. It uses a medicalgrade isolation amplifier to isolate the input connections from chassis or earth grounds. The ISO-Z supplies both gain and calibration, further enhancing its performance. The low impedance output of the ISO-Z is able to drive long cables, making it ideal for use in applications where the DI-1000 Series chassis must be located at a distance from the recording site.

Specifications:*			
Input type:	Differential, balanced to floating common	Output range:	±6V
Input range:	±600 mV	Output connector:	Amphenol, 7-pin plug
Input impedance:	$>10^{10}\Omega$ differential	Head-Stage output cable length:	12 ft.
Wideband noise (referred to input):	<12µv P-P, <4µv rms	Isolation voltage (continuous):	1,500 V
Common mode rejection:	>110db @ 60Hz	Isolation voltage (10 seconds):	5,000V
Gain range:	10x	Leakage current (any input to gnd):	<5µa
Frequency response:	DC-8KHz	Calibrator voltages:	500µv , 10Hz square wave
Input connector:	Pin jacks; .080 in. dia.	Power requirements:	±12VDC @20ma from BMA-931
		Dimensions:	3.5" × 1.2" × 4.3"
*The ISO-Z IS NOT to be used for human life support applications. Required for making recordings of human subjects.			

Direct Product Links

(click on text to jump to page)

Data Acquisition | *Data Logger* | *Chart Recorder* | *Thermocouple* | *Oscilloscope*