



BAK ELECTRONICS, INC. *Biomedical Instrumentation*

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Linear Biphasic Stimulus Isolator

Model BSI-1A



- OUTPUT WAVEFORM FOLLOWS INPUT (LINEAR)
- CONSTANT CURRENT AND CONSTANT VOLTAGE
- PLUS AND MINUS 125 VOLTS COMPLIANCE
- BATTERY OPERATED
- GALVANICALLY ISOLATED

Description:

The Model BSI- 1A Biphasic Stimulus Isolator is totally battery powered utilizing optimum packaging design to provide maximum isolation of stimulus signals. This instrument is a truly linear device which will convert any waveform from 0 to plus and minus 10 volts into a constant current or constant voltage stimulus. It has a constant current range from ± 100 nanoamps to ± 10 milliamps with a compliance voltage of up to ± 125 volts and a constant voltage range between 0 and ± 125 volts. A four position front panel range switch allows optimum resolution for selecting precise stimulus amplitudes. A calibrated front panel control knob allows the investigator to apply input signal levels which can then be attenuated to give continuously adjustable output levels. A separate output jack is provided for monitoring current levels through the electrode so that no connection need be made across the electrode which could interrupt the stimulus current path.

The Model BSI-1A is a completely self-contained portable instrument with adjustable handle for convenient placement near the preparation. It is the logical companion to the BPG-1,2 Biphasic Pulse Generators.

Specifications:

Constant Current	± 100 nA to ± 10 mA
Constant Voltage	Zero to ± 125 volts
Linearity	1%
Noise	0.5% of full output range
Compliance Voltage (In Constant Current Mode)	± 125 volts
Isolation	1000 volts (galvanically isolated)
Input Voltage Range	0 to ± 10 volts (will accept any waveform)
Range Adjust	4 position switch and calibrated input
attenuator knob (0-1.0)	
Rise Time	2 microseconds with 1 megohm source
impedance	
Slew Rate	5 volts per microsecond

Current Monitor Output	1 mv/uA
Power Supply	(2) 9 Volt lithium batteries (6) 3.6 Volt c-cells
Battery life.....	greater than 100 hours)
Package	Bench mount with supporting handle
Weight	4 lbs

Other BAK equipment frequently used with BSI-1:

BPG-1 ,2 Biphasic Pulse Generators

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