



Nerve and Muscle Stimulator

SD9 SQUARE PULSE STIMULATOR For Student and Limited Research Applications

The SD9 Stimulator is a compact, rugged unit capable of handling a wide range of stimulator applications for student teaching as well as research laboratories. The built-in isolation circuit enhances subject safety and minimizes stimulus artifacts. The twin pulse circuit makes this stimulator ideal for refractory measurements.

Built-in Signal Marker

For those investigators requiring a signal mark for each stimulus in a volley, a signal marker circuit is included. This circuit is relay controlled and provides a contact closure for each stimulus up to about 30 per second. At higher rates, the contacts remain closed.

SPECIFICATIONS

Delay Function	0.02 to 200 msec (4 decades); Separates PREPULSE SYNC OUT pulse from the stimulus pulse; Used to set refractory time interval for TWIN PULSE operation
Synchronous Outputs	PREPULSE SYNC OUT precedes the stimulus pulse as selected by the variable delay; PULSE SYNC OUT occurs at the end of delay period which is coincident with the onset of the stimulus pulse
Frequency	0.2 to 200 PPS (3 decades)
Duration	0.02 to 200 msec (4 decades)
Output Volts (Peak)	0.1 to 100 volts (3 decades)
Output Impedance	≈ 1 kohm
Maximum Power Out	2.5 watts peak
Sync Input and Output	+5 volts, TTL compatible
Output Isolation Circuit	Built-in to allow recording with the stimulator at the preparation site with minimum artifact; Output voltage not referred to ground; Output polarity selectable
Biphasic Output	Can be selected to reduce electrode polarization and ion transfer
Monitor Lamps	Flashes with each stimulus pulse
Accuracy	$\pm 10\%$ or better for all parameters
Maximum Power	30 watts at 110 volts, 50/60 Hz; Typical Power is 5 watts
Physical Size	9.5" W x 5.25" H x 5.5" D (24.1 cm x 13.3 cm x 14 cm)
Weight	3.7 lbs. (1.6 kg)
Regulatory	Safety: UL 3101-1, CSA C22.2 No. 1010-1, EN 61010-1 Other European Standards: EN 55011, EN 50082-1 European Directives: 73/23/EEC, 89/336/EEC