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

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
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<tbody>
<tr>
<td>Delay Function</td>
<td>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</td>
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<tr>
<td>Synchronous Outputs</td>
<td>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</td>
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<tr>
<td>Frequency</td>
<td>0.2 to 200 PPS (3 decades)</td>
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<tr>
<td>Duration</td>
<td>0.02 to 200 msec (4 decades)</td>
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<tr>
<td>Output Volts (Peak)</td>
<td>0.1 to 100 volts (3 decades)</td>
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<tr>
<td>Output Impedance</td>
<td>&gt;1 kohm</td>
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<tr>
<td>Maximum Power Out</td>
<td>2.5 watts peak</td>
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<tr>
<td>Sync Input and Output</td>
<td>+5 volts, TTL compatible</td>
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<tr>
<td>Output Isolation Circuit</td>
<td>Built-in to allow recording with the stimulator at the preparation site with minimum artifact; Output voltage not referred to ground; Output polarity selectable</td>
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<tr>
<td>Biphasic Output</td>
<td>Can be selected to reduce electrode polarization and ion transfer</td>
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<tr>
<td>Monitor Lamps</td>
<td>Flashes with each stimulus pulse</td>
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<tr>
<td>Accuracy</td>
<td>±10% or better for all parameters</td>
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<tr>
<td>Maximum Power</td>
<td>30 watts at 110 volts, 50/60 Hz; Typical Power is 5 watts</td>
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<tr>
<td>Physical Size</td>
<td>9.5&quot; W x 5.25&quot; H x 5.5&quot; D (24.1 cm x 13.3 cm x 14 cm)</td>
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<tr>
<td>Weight</td>
<td>3.7 lbs. (1.6 kg)</td>
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<tr>
<td>Regulatory</td>
<td>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</td>
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