Model 2200 & Model 2300

Stimulus Isolation Units

Model 2200

Analog Stimulus Isolator

The Model 2200 Analog Stimulus Isolator is designed to electrically isolate any waveform shape generated by an external signal source. The signal is DC-coupled, and can take on any waveshape within its wide bandwidth, including pulses. Six output scaling options are available, covering a wide range of constant current and constant voltage levels. For a given change in the input signal, the Model 2200 output would scale according to the front panel settings. If for any reason the instrument cannot follow the input signal, an error indicator lights.

Constant current or constant voltage output
Can isolate any waveform shape
Output scaled proportionally to input
100 V compliance voltage
Low noise
Optically isolated output
Built-in battery test circuit
Built-in battery recharger
3-year warranty

Model 2300

Digital Stimulus Isolator

The Model 2300 Digital Stimulus Isolator is designed for applications which require electrical isolation of pulsatile waveforms used in stimulation protocols. TTL control signals from your computer control the timing and generation of pulses whose amplitudes are determined by 10-turn potentiometers on the unit’s front panel. Five output ranges are available: two ranges for constant voltage stimulation, and four for constant current stimulation. If for any reason the instrument cannot deliver the requested pulses, an error indicator lights.

Constant current or constant voltage output
Mono- or biphasic pulse waveforms
Output amplitude set by front-panel controls
50 V compliance voltage
Low noise
Optically isolated output
Built-in battery test circuit
Built-in battery recharger
3-year warranty

For both units, the isolated output section is battery-powered and optically-coupled to the input section, for the ultimate in clean isolation. Two rechargeable batteries are utilized: a 9V battery that powers the control circuitry, and a 12V battery that provides the signal power. Both rechargeable batteries provides full function for at least 8 hours of continuous use. During non-use periods, it is recommended that the unit remain on a trickle charge by connection to the provided external battery charger.
Stimulus Isolation Units

Model 2200
Analog Stimulus Isolator

Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Model 2200</th>
<th>Model 2300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input (max)</td>
<td>± 10 V</td>
<td>± 50 V</td>
</tr>
<tr>
<td>Output (max)</td>
<td>± 100 V monopolar output voltage</td>
<td>± 50 V bipolar output voltage</td>
</tr>
<tr>
<td></td>
<td>± 5 mA output current</td>
<td>± 5 mA output current</td>
</tr>
<tr>
<td>Gain</td>
<td>Within 0.3% of setting</td>
<td>Within 0.15% of range</td>
</tr>
<tr>
<td>Bandwidth</td>
<td>DC to 40 kHz</td>
<td>DC to 40 kHz, &lt; 10 µsec rise time (resistive loads)</td>
</tr>
<tr>
<td>Noise</td>
<td>Mode</td>
<td>Mode</td>
</tr>
<tr>
<td>10 V/V</td>
<td>&lt;10mV</td>
<td>&lt;1mV</td>
</tr>
<tr>
<td>1 V/V</td>
<td>&lt;3mV</td>
<td>10 V</td>
</tr>
<tr>
<td>1 mA/V</td>
<td>&lt;1 µA</td>
<td>10 µA</td>
</tr>
<tr>
<td>0.1 mA/V</td>
<td>&lt;100 nA</td>
<td>&lt;5 nA</td>
</tr>
<tr>
<td>10 µA/V</td>
<td>&lt;10 nA</td>
<td>100 µA</td>
</tr>
<tr>
<td>1µA/V</td>
<td>&lt;2 nA</td>
<td>1 mA</td>
</tr>
</tbody>
</table>

References


Ordering Information

For 220 V / 50 Hz power systems: Product #850005
Country-specific power cords are not supplied.

For 110 V / 60 Hz power systems: Product #850000

All units include a product manual.

Distributed By:

A-M Systems
131 Business Park Loop
PO Box 850
Carlsborg, WA 98324
USA

Toll-free: 800-426-1306 (USA)
Phone: 360-683-8300
FAX: 360-683-3525
E-Mail: sales@a-msystems.com
Website: www.a-msystems.com