HBio

multichannel systems

HUGO SACHS ELEKTRONIK

STG5hv

Precise stimulation for advanced cardiac electrophysiology studies



Applications:

- Cardiac electrophysiology research
- S1-S2 programmed electrical stimulation
- Effective refractory period (ERP) determination
- Conduction velocity and conduction recovery studies
- Arrhythmia induction and susceptibility testing
- Action potential duration (APD) restitution analysis
- Alternans and fibrillation research
- Isolated heart and cardiac tissue preparations

Fully programmable electrical stimulation for tissue and muscle

S1-S2 electrical stimulation is a widely used cardiac electrophysiology protocol for evaluating how cardiac tissue responds to premature electrical impulses. A train of regular pacing stimuli (S1 beats) is delivered at a fixed cycle length, followed by a single premature extra stimulus (S2) at a progressively shorter coupling interval. By assessing whether the premature impulse propagates, researchers can characterize refractory periods, conduction properties, and arrhythmia susceptibility in isolated hearts, cardiac tissue preparations, or cellular electrophysiology models.

The STG5hv delivers precisely timed stimulation pulses required for reliable S1-S2 protocols. Its timing accuracy and flexible pulse control enable consistent pacing and reproducible electrophysiological measurements across a wide range of cardiac research applications.

Precise, reproducible S1-S2 pacing for cardiac electrophysiology

The STG5hv Stimulus Generator is designed to provide the timing precision and protocol flexibility required for advanced programmed electrical stimulation studies. Researchers can confidently execute S1-S2 pacing protocols to characterize refractory periods, evaluate conduction properties, and investigate mechanisms underlying cardiac arrhythmias.

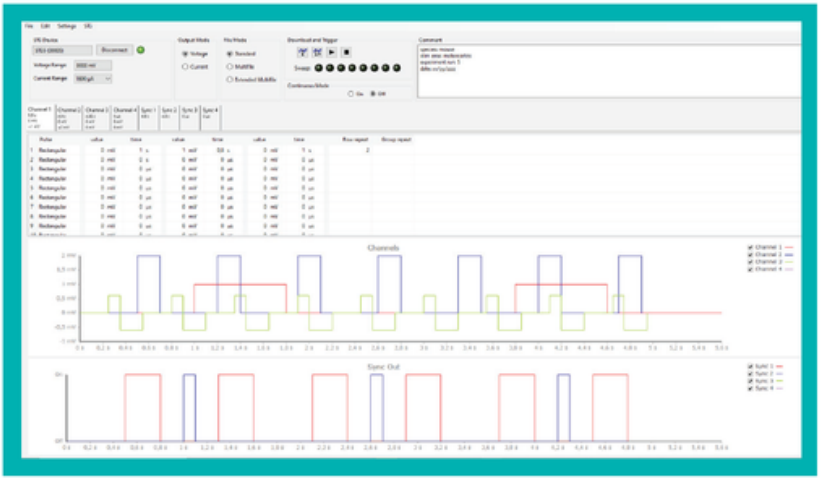
- Precise S1-S2 coupling interval control for ERP determination
- Microsecond timing resolution for reproducible pacing protocols
- Flexible pulse width, amplitude, and frequency settings for diverse cardiac preparations
- Assessment of conduction recovery and block using premature stimulation protocols
- Support for arrhythmia induction studies in atrial and ventricular tissue
- Easy integration with cardiac EP recording and data acquisition systems

Robust, user-friendly software

The STG5hv includes **MC_Stimulus III** software, an intuitive and easy-to-learn solution that allows you to create and save custom light patterns quickly and easily – just define your waveform parameters, enter duration and repetition, and hit “Start.”

MC_Stimulus III also offers:

- Quick amplitude adjustments – select strength to choose a light with low or high intensity
- Grouped or synchronized stimulation
- Trigger-based workflows
- Support for complex feedback loops





Ordering information

Product Description	Part Number
STG5hv Base Unit	89-1416
STG5hv Satellite Unit	89-1417

Ready to learn more?

sales@multichannelsystems.com

Schedule a meeting with us:

Multi Channel Systems
Multi Channel Systems GmbH
Aspenhaustrasse 21
72770 Reutlingen
Germany

Sales:
sales@multichannelsystems.com

Technical Support:
support@multichannelsystems.com

Phone:
Americas: (+1) 800 272-2775
Europe, Middle East, Africa: (+49) 7121-909-2526
Asia Pacific: (+86) 21-6226-0239

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