

SIU-102

Stimulus Isolation Unit – Bipolar High Current

Designed for use with Warner's imaging chambers and dish inserts with field stimulation electrodes



- Constant current and constant voltage modes
- Bipolar, pulse and DC modes
- Optical coupling is used to isolate the stimulator from pulse source
- Current up to 100 mA, voltage up to 100 V
- **For imaging applications only**

Designed for use with Warner imaging chambers having field stimulation electrodes, the SIU-102 features optical isolation at the input and transformer isolation at the output. Timing pulses can be controlled by any device capable of generating a TTL level positive pulse – a computer with data acquisition, for example.

Positive or negative pulses, positive or negative DC, and bipolar pulses are possible in constant current or constant voltage delivery modes. For bipolar delivery, a positive pulse during the input pulse is followed immediately by a negative pulse of equal duration and amplitude. Bipolar pulse widths from 100 μ s to 100 seconds per each polarity are possible.

Output amplitude is set using a range mode switch in conjunction with a ten-turn potentiometer to set a percentage of the selected range.

Indicator lights keep the user apprised of the following:

High voltage:	Lights red when output voltage above 30 volts
Compliance:	Lights when impedance across output is too high for current setting
T>100 Sec:	Lights when pulse width input is longer than 100 seconds in Bipolar mode
Ext. Trigger:	Lights when a valid input is applied to the Pulse In BNC

Specifications

Output Waveform	DC, Current Pulse or Voltage Pulse
Output Current Ranges	1, 10, and 100 mA
Output Voltage Ranges	10 and 100 V
Output Impedance	10 V Range: 1 k Ω
Voltage Mode	100 V Range: 10 k Ω
Output Compliance	100 V
Output Polarity	Selected by Mode Switch Red connector is positive in any positive mode; Red connector is negative in any negative mode
Amplitude Control	Multi-turn dial
Input Pulse Requirements	TTL level, positive pulse 3 V, 1 mA minimum Minimum
Pulse Width	100 μ s Maximum Pulse Width: 100 s (Bipolar Mode Only)
Input Connector	BNC
Output Connector	Banana Jacks
Power Requirements	90 to 270 VAC, 50/60 Hz, 10 VA
Physical Size, H x W x D	8.9 x 20 x 25.4 cm
Shipping Weight	3 kg
Warranty	Two years, parts and labor

Order #	Model	Product
W4 64-1424	SIU-102	Stimulus Isolation Unit
W4 64-1425	CC-102	Cable, male banana to 1 mm jacks (for use with Warner field stimulation chambers)