

## Stimulus Generator 4000 – 160 $\mu$ A Technical Specifications

<b>General</b>	
Operating temperature	10 °C to 50 °C
Storage temperature	0 °C to 70 °C
Dimensions (W x D x H)	310 x 325 x 85 mm (for STG 4004 / STG 4008), 235 x 170 x 60 mm (for STG 4002)
Weight	2.8 kg (for STG 4004 / STG 4008), 1.2 kg (for STG 4002)
Fuse	Internal, 3.15 A slow
Number of analog output channels	2 / 4 / 8
Output voltage	-8 V to +8 V @ max. $\pm$ 20 mA
Output voltage resolution	1 mV
Rise time (10 - 90 %) voltage	1.7 $\mu$ s @ $\Delta$ U = 8 V
Time lag between Sync Out and voltage output	15 ( $\pm$ 2) $\mu$ s
Output current	-160 $\mu$ A to +160 $\mu$ A @ max. 120 V compliance voltage (between +I and -I)
Output current resolution	20 nA
Output current slope	600 $\mu$ A / $\mu$ s @ RL = 10 k $\Omega$
Rise time (10-90 %) current, 0 – 100 $\mu$ A	1.4 $\mu$ s @ RL = 10 k $\Omega$
Time lag between Sync Out and current output	15 ( $\pm$ 2) $\mu$ s @ RL = 10 k $\Omega$
Resolution	14 bit
Time resolution	20 $\mu$ s
Output signals	Freely programmable (rectangular, ramp, sinus)
Maximum frequency (rectangular waveform)	25 kHz
Memory capacity for stored waveforms	64 MB
<b>Timing on external trigger</b>	
Minimum time length of trigger input (TTL)	40 $\mu$ s
Time lag between trigger in and Sync Out	70 ( $\pm$ 10) $\mu$ s
Maximum trigger input frequency	10 kHz
<b>Interface and connectors</b>	
Connectors for stimulation	2 mm banana plug
Sync Out for synchronization	2 / 4 / 8 digital channels via coax cable
Trigger In for synchronization	2 / 4 / 8 digital channels via coax cable
Interface (connection to computer)	USB 2.0 High Speed
Download rate	Maximal 480 Mb per second
<b>Power supply unit (MPU30)</b>	
Input voltage	90 – 264 VAC @ 47 – 63 Hz
Output voltage	11 – 13 V
Max. Power	30 W
<b>Software</b>	
MC_Stimulus II	Version 3.4.4 and higher
Operating system	Microsoft Windows <sup>®</sup> 10, 8 and 7 (32 or 64 Bit), English and German versions supported
Data import / export	ASCII file format

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