

## Stimulus Generator 4000 – 1.6 mA Technical Specifications

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| <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),<br>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                               | -1.6 mA to +1.6 mA @ max. 120 V<br>compliance voltage (between +I and -I)  |
| Output current resolution                    | 200 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>              |  |
| 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), XP or Vista<br>with NTFS, English and German versions supported |
| Data import / export                         | ASCII file format  |