

MA-1000 Moving Averager



- For EMG and ENG measurements
- Uses easily replaceable time constant modules to implement moving average
- Comes standard with time constants of 50, 100, and 200mS, but any values between 10 and 500mS are available

The MA-1000 consists of an adjustable-gain input buffer, a precision full-wave rectifier, and a moving averager circuit, and is used for the accurate quantification of electromyogram (EMG) and electroneurogram (ENG) signals. The moving averaging circuit is a 3rd order Paynter low-pass filter that creates a contoured or smoothed envelope around the rectified signal, with selectable degrees of smoothing. Smoothing is accomplished by the selection of a time constant, conveniently implemented by front panel push-button switches.

| Specifications:* | | | |
|------------------------------------------------------------------|-------------------------|-----------------------------|---------------------|
| Input impedance | $1M\Omega$ single-ended | Moving average output volt- | 0 to 10V |
| | | age range | |
| Input voltage range | ±10V | Output impedance, any | $<10\Omega$ |
| | | output | |
| Input coupling | AC or DC, switchable | Input/output connectors | BNC |
| Rectifier offset and asym- | ±5mV max | Power requirements | ±12VDC @ 50mA |
| metry | | | |
| Frequency response | DC to 25kHz | Dimensions | 2.5" × 5.05" × 9.5" |
| Rectified output voltage | 0 to 10V | | |
| range | | | |
| *The MA-1000 IS NOT designed for patient-connected measurements. | | | |

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