
## Product Overview

The **MyoSystem™ 1400L** surface and fine-wire electrode EMG unit is a highly versatile device ideal for research studies, yet simple enough to use for clinical applications. The system is available as a 4 or 8 channel unit. This instrument features NORAXON's internationally patent-protected amplifier technology to provide clean, consistent and reliable EMG signals during any type of isometric or dynamic exercise. The 1400L is fully compatible with NORAXON's line of biomechanical sensors. This allows any EMG lead to be freely exchanged with other sensor types, like force, angle, acceleration, inclination, and more. The 1400L has a "built in" USB A/D which handles all data acquisition and greatly simplifies interfacing to a computer for data acquisition.

## Benefits

- Provides scientifically reliable data
- Monitors up to 8 muscles simultaneously
- Allows Inline Biomechanical Sensors to be used
- Includes set bandwidth of 10-500 Hz for SEMG and 10-1,000 Hz for fine-wire
- Allows for flexible placement of electrode sites and spacing
- Provides virtually artifact-free signals

## Features

- NORAXON's internationally patented amplifier technology
- Thin, lightweight, very flexible cable
- Pre-amplified electrode leads, can be used with disposable or permanent electrodes
- Internal data acquisition system with USB connectivity for up to 8 channels
- Compliant with IEC60601-1 and IEC60601-2-40 electromyography standards (CE approved)

## Technical Specifications

### Outputs

- Analog +/- 5 volts on all SEMG channels
- Digital 12 bit resolution per channel from USB port

### Inputs

- 4-8 SEMG channels @ +/- 7 mV max
- 4-8 sensor channels @ +/- 5 Volts max
- Power 100-240 VAC @ 50/60 Hz (0.9 A max)

### SEMG Amplifier Performance

- 1 uV sensitivity
- < 1 uV RMS baseline noise

### Data Acquisition

- 12 bit resolution 8 channels
- USB update to PC every millisecond

### High Pass Cutoff

- 10 Hz first order on SEMG channels

### Low Pass Cutoff

- Selectable 500 or 1000 Hz on SEMG channels
- 8th order Butterworth (maximally flat)

### Input Impedance

- 100 MOhm on SEMG channels (isolated to > 3000 Volts)

### Common Mode Rejection

- Min 100 dB @ 50-60 Hz

### Physical

- 11” L x 7.75” W x 4” H; 3 lbs. (28 x 19.7 x 10.2 cm; 1.4 kg)

### Options

- Full line of NORAXON direct plug-in sensors (e.g. foot switches, goniometers, inclinometers, accelerometers and force sensors)