Physio16 input box

for polygraphic data acquisition integrated with EEG

integrated with Geodesic EEG System 400

measures 16 bipolar channels – use 2 input boxes to measure 32 channels

use for respiration, body position, EMG, ECG, SpO2

export EEG and physiological data together for analysis

MR-compatible version available

integrates with EGI's Geodesic EEG System

EGI
dense array EEG

The Physio16 input box is designed specifically for use with EGI's Geodesic EEG System (GES) 400 for integrated recording of physiological measurements and EEG. Two Physio16 input boxes can be connected to the Net Amps 400 amplifier to measure, record, and review up to 32 bipolar channels and 2 SpO2 channels, along with up to 256 EEG channels. An MR-compatible version is available.

Features

- each Physio16 input box can collect up to 16 bipolar channels and one SpO2 channel
- use either as standalone devices or use synchronously with EEG
- configure and control using Net Station 5 software
- measure, record, & review Physio16 and EEG channels simultaneously
- easily mark EEG and PNS events in real time
- segment the data and export all channels together in MATLAB, Persyst, EDF+, or tab delimited text formats for further analysis in MATLAB, PRANA, or your favorite software
- fully customizable for use with most standard PNS sensors
- works with the full complement of sensors used in sleep research
- runs on battery or wall power through an isolation transformer

Sensors tested for safety and efficacy with the Physio16 input box

Measurement	Part	Product #
Respiratory effort	zRIP Kit (adult)	6156125
Respiratory temp.	Thermistor	6156131
Respiratory flow	PTAF Lite Pressure Transducer Start-up Kit	6156141
Body position	Body position sensor (SPI sensor DC)	6156145
EMG/ECG	120" EMG leads	6156163
EMG/ECG	120" EMG leads	6156162
General	Meditrace 230 general sensors	6156165
General	Ambu Blue Sensor (pk of 25)	6156167
SpO2	Adult SpO2 pulse oximeter	6156168
ECG	Biopac ECG MR Electrode	6156170
ECG	Biopac ECG Clip Lead, 3.6 m	6156171
ECG	Biopac ECG Clip Lead, 1.8 m	6156175
ECG	Invivo CV MRI ECG Lead Cable	6156176
ECG	Invivo CV Quadtrode ECG MR electrodeable	6156177

Requirements

Geodesic EEG System (GES) 400 series (Net Amps 400 series firmware version 1.6 or later)
Net Station software version 5.1 or later (requires Mac OS X 10.9 or later)

Products

Physio16™ Input Box
Physio16™ MR Input Box
Physio16™ Adult Sensor Kit
Physio16™/PIB Accessory Kit
individual sensors, as listed in table above

Physio16 input box technical specifications

Dimensions: 25 cm x 12 cm x 5 cm (9.8 in x 4.7 in x 2 in)
Weight: 1225 grams (2.7 lb)
Cable Interface: 15 m (50 ft) MTRJ-MTRJ fiber optic cable
16 bipolar channels
1 SpO2 channel
Sample Rate: 1 KHz with a bandwidth of DC - 200 Hz
Input Range: ± 2 V (gain=1), +/-200mV (gain=12)
Resolution: 24 bit ADC
Gain: user configurable: 1, 2, 3, 4, 6, 8, or 12
Input Impedance: 1 MΩ
Subject Isolation: 40 µA tested at 240 VAC, 4 kV dielectric withstanding
Power: rechargeable lithium-ion battery or wall power through an isolation transformer

Sensor compatibility

The Physio16 input box accepts 1.5 mm female safety connectors, which are typical of FDA-cleared sensors. We recommend using sensors tested for safety and efficacy with the Physio16 input box (see table).

To schedule a demo, or for more information, contact info@egi.com

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Physio16 flyer, Mar 2017. MM_ 506