EEG Module, E-EEGX
EEG Headbox, N-EEGX

For continuous integrated neuromonitoring

The E-EEGX Module is a single-width, plug-in module for continuous integrated neuromonitoring with four channels of EEG and with auditory evoked potentials (AEP).

The EEGX Headbox, N-EEGX, must be used with the E-EEGX Module. The module and the headbox are IEC 60601-1 3rd edition compliant.

Features

- Designed for anesthesia and critical care
- Referential or bipolar measurement possibility
- Automatic impedance check and leadset recognition
- Saving for user-defined measurement montages
- Supports usage of preconfigured leadsets for the most frequently used montages

EEG

- Up to four channel EEG with one channel EMG recognition
- EEG waveform displayed with user-selectable scaling
- Spectral analysis by fast fourier transform (FFT)
- Graphical trends of quantitative EEG parameters
- Graphical presentation of EEG channel asymmetries
- Compressed spectral array (CSA) display and printout
- Burst suppression detection, burst suppression ratio (BSR) and artifact detection

AEP

- Single or continuous (moving average) measurement for up to two channels
- View for averaged evoked responses
- Latencies and amplitudes can be measured and saved for printing at the end of the case
- Possibility to save a reference evoked response and display it together with the current response

Technical specifications

Direct function keys

EP Start/Stop	Starts or stops AEP measurement
Imp. Check	Check electrode impedance

EEG

Measurement	
Sampling frequency	200 Hz per channel
Range	+/- 500 µV
Frequency range	0.5...50 Hz
Display resolution	0.1 µV
Noise level	< 6 µV peak-to-valley
Analysis	
Parameters from power spectrum	Spectral Edge Frequency (SEF), Median Frequency (MF), relative power in frequency bands
Time-domain parameters	Amp, BSR

AEP

Stimulation	
Click (condensating)	Duration 100 µs
Frequency	1.1 to 9.1 Hz (1 Hz steps at 10 ms meas.)
Intensity	10 to 90 dB normal Hearing Level (nHL), 10 dB steps
Measurement	
Sampling frequency	2400 Hz for Middle Latency Auditory Evoked Potential (MLAEP) / 4800 Hz for Brainstem Auditory Evoked Potential (BAEP)
Frequency range	0.5 to 1000 Hz
Highpass filter	Off / 10 / 30 / 50 / 75 / 100 / 150 Hz
Single or continuous averaging possibility	
Single average	
Number of averaged responses	100 to 2000
Moving average	
Gross average	100 to 2000
Update interval	After every 100 stimuli (200, when gross average is 2000)

EMG

Frequency range	60 to 300 Hz
Parameter	Root mean square (RMS) amplitude

Monitor compatibility

CARESCAPE™ modular monitors with CSP V3 software. Please, check Monitor User Manual for compatibility.

Environmental specifications, Module and Headbox

Operating conditions

Temperature	10 to 40°C (50 to 104°F)
Relative humidity	10 to 90% non-condensing

Storage conditions

Temperature	-20 to 60°C (-4 to 140°F)
Relative humidity	10 to 90% non-condensing

Physical specifications

Module

Dimensions (H x W x D)	112 x 37 x 187 mm (4.4 x 1.5 x 7.3 in)
Weight	0.3 kg (0.7 lb)

Headbox

Dimensions (H x W x D)	34 x 97 x 174 mm (1.3 x 3.8 x 6.8 in)
Weight	0.5 kg (1.1 lb) (incl. 3 m/118 in cable)

Imagination at work

E-EEGX MJD101
N-EEGX MJS101

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