

SOMNOwatch™ plus

SMALL BUT MIGHTY. MODULAR, POWERFUL & VERSATILE.



SOMNOwatch™ plus is a powerful, miniaturized multi-channel recorder that is as comfortable and user-friendly to wear as a wristwatch. As a multi-channel system, the SOMNOwatch™ plus can replace several common devices, depending on the connected sensor(s), while providing excellent signal quality.



6-channel EEG headbox

Acquisition of motoric performance data

- ◆ Application on the non-dominant arm to detect the sleep/wake rhythm
- ◆ Recording of the activity in epochs of 1-120 s and presentation as an actigraphy profile
- ◆ Day/night determination via the integrated light sensor

Actigraphy determination

- ◆ Activity profile for the determination of circadian rhythm
- ◆ Recording of motoric function for:
 - Sleep-wake estimates
 - ADHD
 - Training, sport and rehabilitation
 - PLM
 - Tremor-Analysis (Determine frequency using FFT)

Combined with additional modules, the SOMNOwatch™ plus can also be used as a 1-channel long-term EEG, long-term ECG, respiratory screener or as a PLM recorder.

With the 6-channel EEG headbox, the device becomes one of the *smallest* long-term EEG recorders on the market.

- * 6 EEG + 1 EMG/ECG
- * Impedance display with coloured LEDs
- * Continuous impedance recording
- * Up to 20 hours recording time
- * ECG Elimination
- * Acoustic replay



validated *

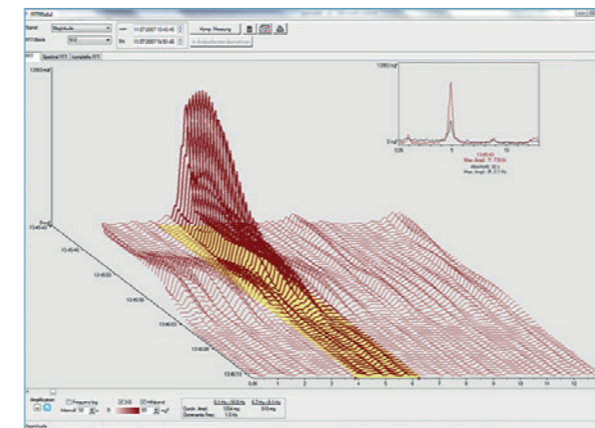
PLM/RLS recorder

Placed on the ankle, the device can record leg movements continuously for up to 4 nights. Due to the integrated position sensor it is possible to distinguish between the standing and lying position. With adjustable parameters, the software automatically recognizes PLM movement patterns and evaluates the PLM index. Motoric activity is quantified for the RLS rating (Restless Leg Syndrome).

For an extended diagnosis, a correlation of PLMs with cortical micro-arousals can be proven using the EEG recording (optional).

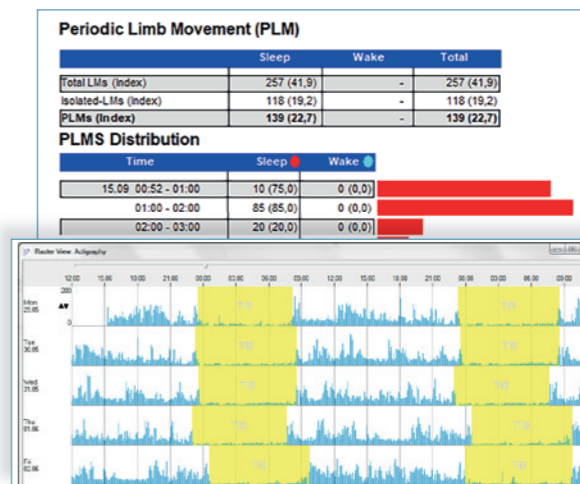
*Benes H. et al, Validation of the new actigraphy system SOMNOwatch™ for the measurement of periodic leg movements, 2nd World Congress of Sleep Medicine (WASM), Bangkok (Thailand), 2007.

Analysis & Reports



Tremor Analysis

The high-frequency acquisition of motoric data enables the SOMNOwatch™ plus to perform an exact frequency analysis using FFT. Tremor intensity and frequency can be recorded over a long period of time. This parameter can be used for the medical diagnosis and treatment of Parkinson's disease.

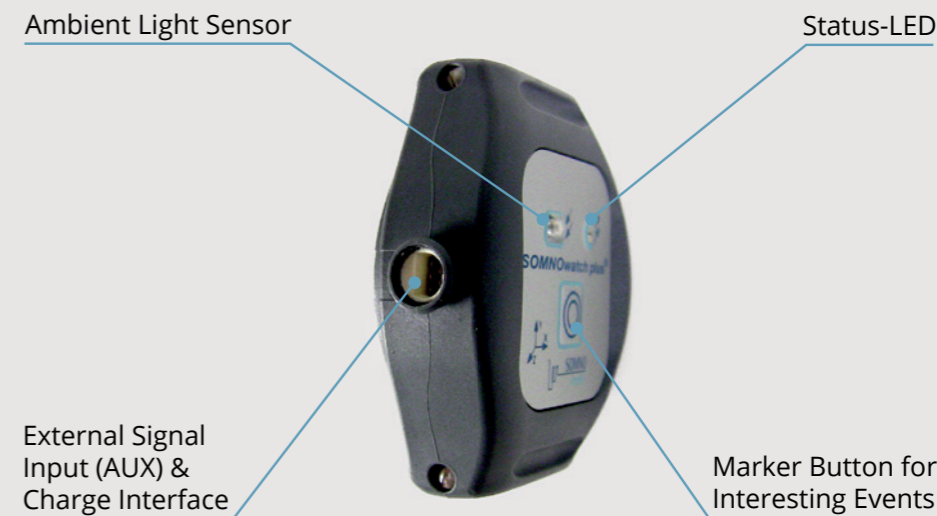


The DOMINO light - Sleep software

In addition to all standard sleep-related functions, the software also includes a significant number of features and benefits that will satisfy even the most demanding sleep lab.

For more information, please visit our website www.somnomedics.eu.

Overview



Technical data

7 internal channels

Body position, 3 activity sensors (x, y, z-axis, magnitude), ambient light, patient marker

Up to 8 external channels

Data storage / data transfer

Recording duration up to 25 days, storage of raw data at 256/32 Hz, data compression mode, adjustable sampling rate up to 128/s, 512 MB storage capacity

25 days 64 MB

Display

2 coloured LEDs

Size and weight

45 x 51 x 15 mm, 30 g (including battery)

Power supply

Li-Ion battery, rechargeable

Analysis software

DOMINO light

The SOMNOWatch™ plus can be attached to your wrist, upper body or ankle - for whatever data you need!

Respiratory flow/snoring

Attach to the chest strap with nasal-oral cannula and the pressure sensor

Bruxism

On the upper body with an external sensor

ECG analysis/ Training control/REHA

On upper body with external ECG sensor for cardio or activity measurement

Basic set "Actigraphy"

Activity, sleep-wake analysis on the wrist of the non-dominant hand; tremor analysis on the wrist of the affected hand

EDA: Electrodermal activity

Measurement on the wrist of the non-dominant hand; with external EDA sensor

CPAP control

Add an external pressure sensor to the chest strap and a connection hose to the CPAP device

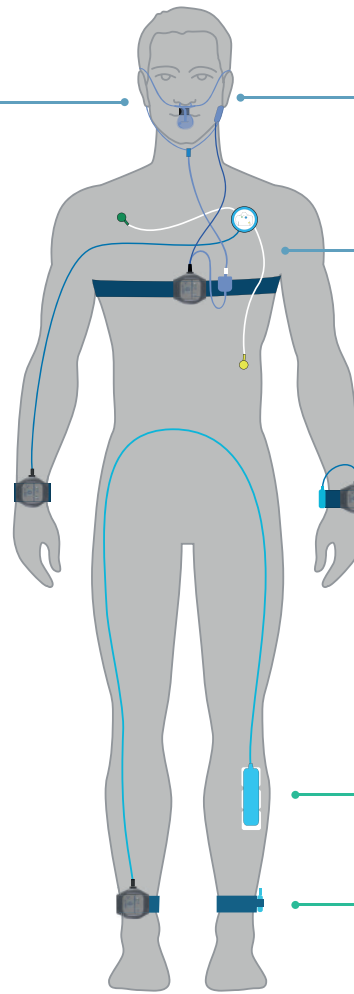
PLM/RLS Analysis

Measurement at the foot strap with ext. PLM sensor



OR

with ext. activity sensor for PLM measurement on second foot strap



SOMNOWatch™ plus - Available modules



Combination module Flow/Snore
For simultaneous measurement of flow/snore.



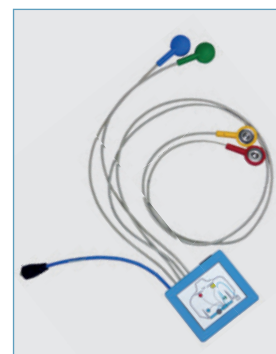
Headbox with 6-channel EEG
6-channel long-term EEG: 6 EEG + 1 EKG/EMG can also be used as sleep recorder: 4 EEG, 2 EOG, 1 EMG continuous impedance recording.

RESP Module - Respiratory Analysis

- Respiratory flow (nasal cannula)
- CPAP/BiPAP pressure
- Effort (thorax & abdomen)
- Snoring
- Pulse rate
- SpO₂



1-channel ECG sensor for ECG analysis
On the upper body with external ECG sensor for ECG or activity measurement.



BP Module - Continuous long-term blood pressure measurement without cuff

- Syst./Diast. Blood pressure [beat-to-beat & non-reactive]
- 3-channel ECG
- Oximetry
- Heart rate variability
- Plethysmogram
- Pulse