# **NEUROWERK CENTER**

All NEUROWERK devices made by SIGMA Medizin-Technik are controlled by the central data management system -NEUROWERK CENTER. Whenever you make an appointment for a patient's examination, this patient will be integrated into your entire system and available for all NEUROWERK

examinations. The facility to couple the NEUROWERK CENTER database to your clinic or practice EDP system will create time savings that will benefit both yourself and your patients.



# **NEUROWERK**<sup>®</sup>

Connect With Us

- → High Quality products for neurology made in Germany
- → Intuitive user interface combined with highly sophisticated device technology
- → Central data management for all NEUROWERK applications
- → High safety and reliability through a certified quality management system



EMG, NCV and **Evoked Potential Measuring System** 

**NEUROWERK** 

diagnostic devices made in germany

manufactured by **SIGMA Medizin-Technik** 





## **NEUROWERK EMG**

The NEUROWERK EMG system provides the complete range of methods required in the daily routine diagnosis of neurological functional disorders. It enables you to create your own programs, opening up practically unlimited possibilities to find an optimum examination method for your particular diagnostic problem.

Highlights of the system include the straightforward system intuitive operation combined with high time efficiency, as

well as the amplifier and high ADC resolution to record any electrophysiological signal you need.

Whilst SIGMA Medizin-Technik have not reinvented EMG/EP diagnostics, we have managed to provide you with a complete system that makes your routine diagnosis simple and efficient. Furthermore, we have been able to ensure that through acquiring this equipment you will experience cost savings.

Option: NEUROWERK EMG portable with carrying case V



## **EXAMINATIONS**

## NCV

→ Motor, sensory, inching, repetitive stimulation (myasthenia test), F-response, Reflexes (H-Reflex, OOR)

#### SEP

→ Preconfigured programs for median, tibial and trigeminal nerves

## → Surgery monitoring\*

## AEP

- → Early, middle and late \* latency brainstem evoked potentials
- → Easy determination of stimulus threshold
- → Automatic examination

#### VEP

- → Checkerboard pattern with various pattern size and fix points
- → LED-Goggle or flash stimulation \*

## MEP

- → Possible to connect various magnetic stimulators
- → Includes F-response for the measurement of the central motoric latency (CML)
- → Preconfigured programs for upper and lower limbs

## EMG

- → Spontaneous, voluntary and maximal activity
- → Quantitative EMG analysis for motor units\*
- → Turns-amplitude analysis\*
- → Triggered EMG
- → Single fiber EMG, unblanketing \*

## → Macro EMG \*

## ANS

- Sympathetic Skin Response (SSR)
- → Heart Rate Variation (HRV) \*

## MODELS

- → With 2 or 4 channels
- → As EMG/NCV/SEP system
- → As EMG/NCV/SEP/AEP/VEP system
- → As AEP/VEP extension for the NEUROWERK EEG
- → With desktop PC or notebook
- → As a portable system in a carrying case



Intelligent details for your daily work: the

neuro-anatomic guide for proper electrode placement

## SOFTWARE



## **TECHNICAL DATA**

#### Amplifier

- → Channels: 2 or 4
- → Integrated electrode impedance test
- $\rightarrow$  CMRR: > 110 dB, Noise: < 1 $\mu$ V
- → Input impedance: > 110 MOhm
- → Lower limit frequency: 0,07 ... 500 Hz
- → Upper limit frequency: 30 Hz ... 20 kHz
- → 50/60 Hz filter
- Sensitivity: 0,1 μV ... 10 mV/DIV

## Averager

- → A/D converter: 24 bit
- → Sampling frequency: 50 kHz/Kanal
- → Analysis time: 0,01 ... 10 s
- → Artifact suppression: on/off, artifact threshold freely definable
- → Number of passes: 1 ... 10000

#### **Visual stimulator**

- → Stimulation monitor: 17" TFT monitor and goggles
- → Stimulation type: chessboard pattern type; full screen, right, left, top, bottom and individual quadrants; LED goggle \* with left, right or both eye stimulation
- → Pattern elements: 4, 8, 16, 32, 64, 128
- → Visual target: central or at any give place on the monitor

#### **Electric stimulator**

- → Stimulation mode: single, double, train
- Stimulator: constant current
- → Pulse duration: 0,05 ... 1 ms
- → Intensity: 0 ... 100 mA

## Acoustic stimulator

- → Stimulation type: click, tone burst, noise
- → Click stimulation mode: condensation, rarefaction, alternating, random
- → Pulse width: 0,1; 0,2 ms (Click)
- → Sound pressure: 0 ... 100 dB nHL
- Stimulator output: right, left, both

## Possibility of connecting external stimulators

→ By two trigger input and output sockets

## **GENERAL DATA**

- → Preconfigured and freely programmable examinations
- → Permanent supervision of the raw data
- → HighEnd amplifier and 24 bit ADC
- Automatic marker setting and calculation of such aspects as latency, amplitude, amplitude decrement
- → Recording with double time base
- → Graphics for electrode placement
- → Split screen presentation for simple left/right comparison
- → Freely programmable result tables for the report



Option: NEUROWERK EMG desktop with trolley ↑

## SERVICES

- → Training and further education for physicians and technicians available
- High quality accessories and consumables by simple and reasonable online order
- → 24 hour service provided
- → Can adhere to special requests
- → Integration into an existing system and network possible