

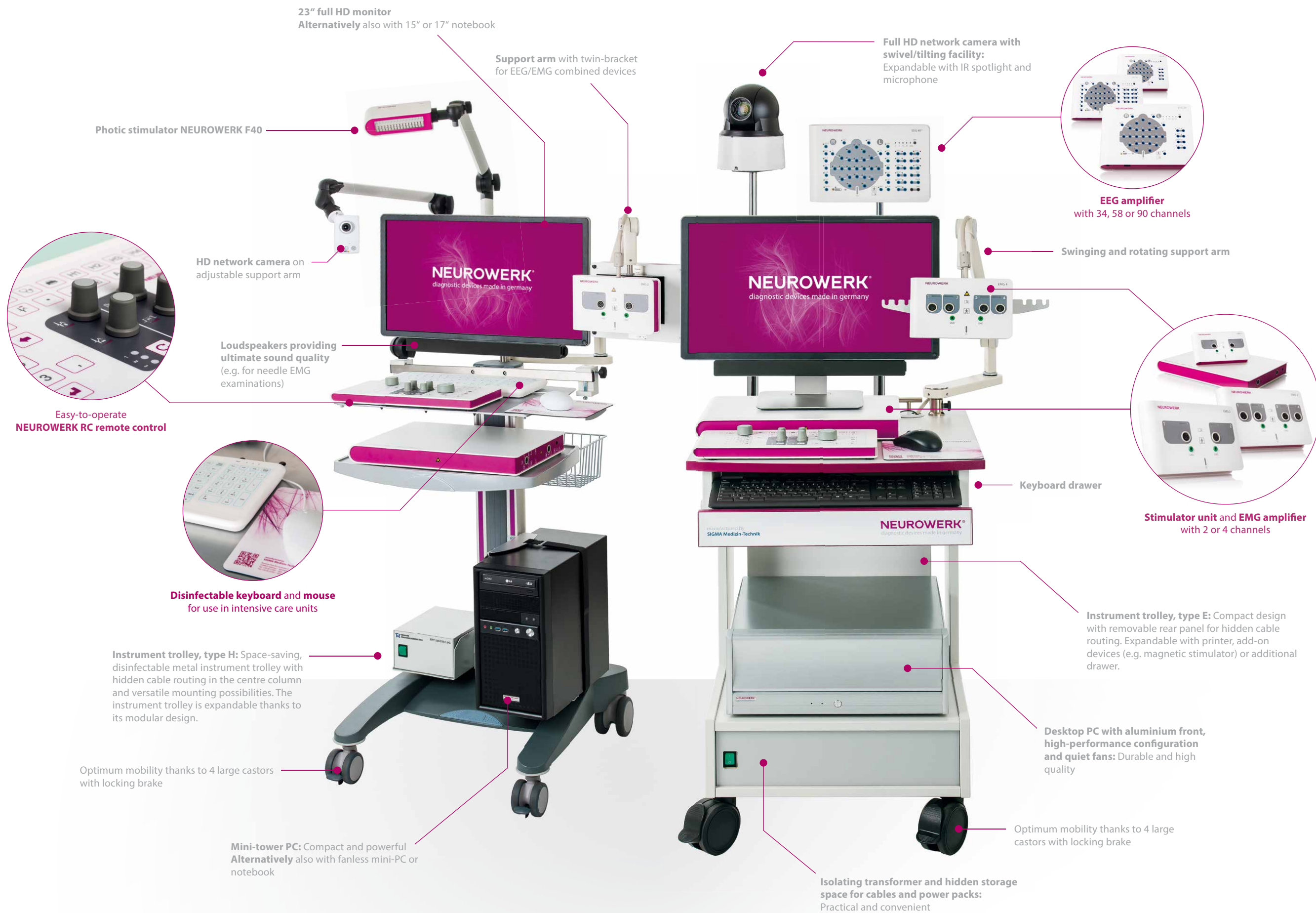
**NEUROWERK®**

diagnostic devices made in germany



# NEUROWERK EEG | EMG

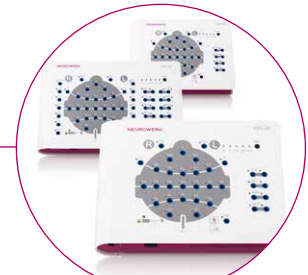
reliable · flexible · efficient



23" full HD monitor  
Alternatively also with 15" or 17" notebook

Support arm with twin-bracket  
for EEG/EMG combined devices

Full HD network camera with  
swivel/tilting facility:  
Expandable with IR spotlight and  
microphone



EEG amplifier  
with 34, 58 or 90 channels

Photic stimulator NEUROWERK F40

HD network camera on  
adjustable support arm

Swinging and rotating support arm

Loudspeakers providing  
ultimate sound quality  
(e.g. for needle EMG  
examinations)



Easy-to-operate  
NEUROWERK RC remote control



Disinfectable keyboard and mouse  
for use in intensive care units



Stimulator unit and EMG amplifier  
with 2 or 4 channels

Keyboard drawer

Instrument trolley, type H: Space-saving,  
disinfectable metal instrument trolley with  
hidden cable routing in the centre column  
and versatile mounting possibilities. The  
instrument trolley is expandable thanks to  
its modular design.

Instrument trolley, type E: Compact design  
with removable rear panel for hidden cable  
routing. Expandable with printer, add-on  
devices (e.g. magnetic stimulator) or additional  
drawer.

Optimum mobility thanks to 4 large castors  
with locking brake

Desktop PC with aluminium front,  
high-performance configuration  
and quiet fans: Durable and high  
quality

Mini-tower PC: Compact and powerful  
Alternatively also with fanless mini-PC or  
notebook

Optimum mobility thanks to 4 large  
castors with locking brake

Isolating transformer and hidden storage  
space for cables and power packs:  
Practical and convenient

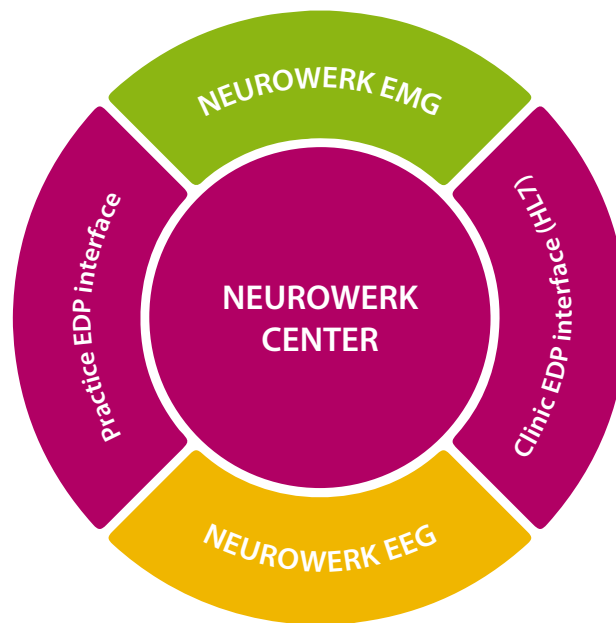
# NEUROWERK CENTER

## Central data management for EMG and EEG

NEUROWERK CENTER forms the basis for successful work with our NEUROWERK EMG and EEG systems. Thanks to its powerful SQL database, NEUROWERK CENTER provides easy access to all functions of our devices. With this software, you may clearly manage and save all examination results, both EMG and EEG, over the long term. It has never been easier to exchange measurement results and findings via an HL7 or GDT interface, or to export them as PDF documents. Your data is protected against unauthorised access by the integrated user management functions.

Compatibility with the latest operating systems, such as WINDOWS 7 and WINDOWS 10, makes NEUROWERK CENTER a lasting gain in your daily work.

- » Single data management for all examinations and findings, regardless whether EMG or EEG
- » Synchronisation of the data of mobile recording stations with the server
- » Fully automatic archiving and backup on any chosen drive
- » PDF conversion and issue of closed findings
- » HL7 order management and case number management
- » User access based on an existing Windows Active Directory
- » Filter function for examination lists and multistage evaluation of the findings
- » Processing of editing orders for video and long-term EEGs



# NEUROWERK

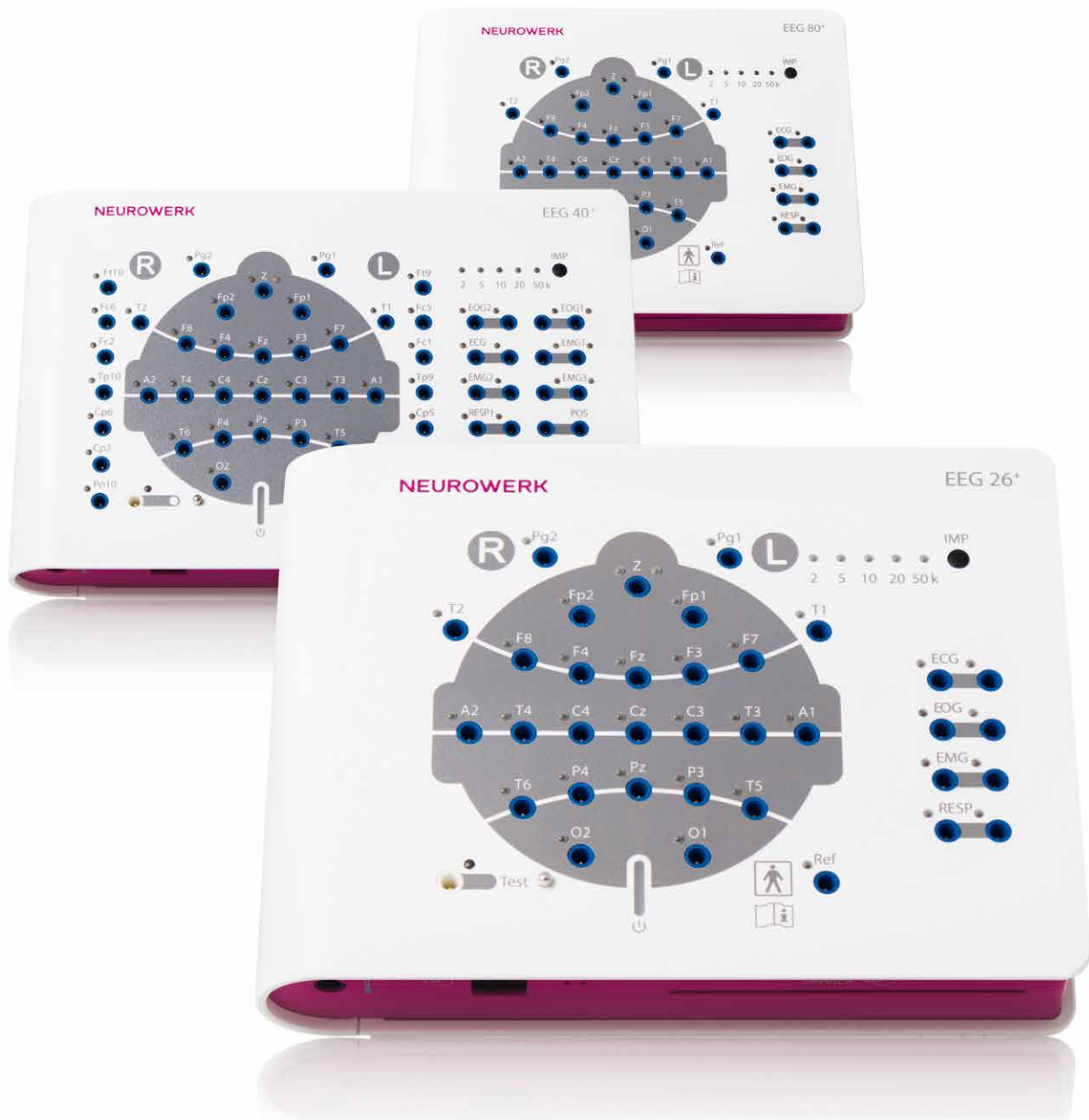
## 25 years of quality products „Made in Germany“

The company SIGMA Medizin-Technik has been specialised in the production and development of neurological diagnostic devices for more than 25 years. Our work is based on German quality standards and many decades of experience in the field of neurology. EEG and EMG devices carrying our brand name

NEUROWERK captivate customers all over the world with straightforward and intuitive operation. Our portfolio is rounded off with the organisation of methodical training courses and sales of high-quality accessories.

**25** 1990-2015  
**YEARS**

SIGMA Medizin-Technik GmbH



## NEUROWERK EEG



- » Amplifier with 34, 58 or 90 channels
- » Video expansion | Full HD camera
- » Photic stimulator F40



# NEUROWERK EEG

## Working more efficiently

The NEUROWERK EEG system meets the highest demands placed on EEG diagnostics, ranging from the routine EEG in hospitals up to long-term or neurological monitoring in the intensive care unit. Our innovation strength is demonstrated once more by a whole host of technical highlights, such as high-resolution AD conversion. All methods required for daily EEG diagnostics are already provided in the standard version of NEUROWERK EEG. These methods include, for example, spectral analysis

and EEG mapping to assist you in the evaluation of EEGs. Furthermore, the reliability and durability of NEUROWERK systems guarantee lasting investment value for hospitals and surgeries.

Be inspired by the flexibility and intuitive operability of our EEG devices, which make your work with the patient especially efficient.



### Always the ideal variant

- » With 34, 58 or 90 channels
- » On instrument trolley or in transport case
- » Combined unit with EMG/EP expansion
- » As a PC system, notebook or with fanless mini PC
- » As a kit for connection to an existing PC

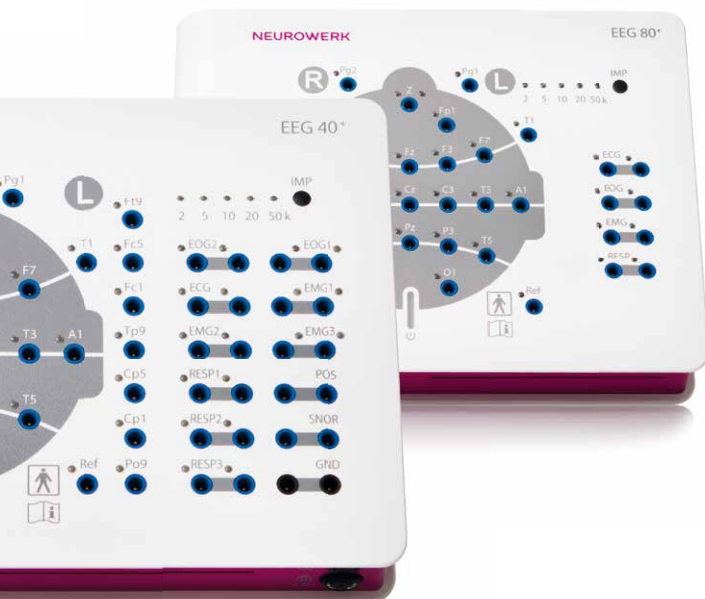
## Individual and flexible scalability

- » Online pattern recognition (spike/seizure), source localisation, 3D mapping
- » Different camera systems (analog and network cameras, resolution up to full HD, with IR spotlight, swivel-tilting unit)
- » Photic stimulator F40 up to 60 Hz
- » Customised solutions for support arms, trolleys and accessories



## Fitted with the best amplifiers

- » DB26+ with 34 channels (26 EEG, 6 bipolar, temperature, ambient light)
- » DB40+ with 58 channels (40 EEG, 16 bipolar, temperature, ambient light)
- » DB80+ with 90 channels (80 EEG, 8 bipolar, temperature, ambient light)
- » Expandable with SaO2 and etCO2 sensors
- » 24-bit A/D converters, variable sampling rate up to 2,048 Hz/channel
- » Cable tester on the EEG box



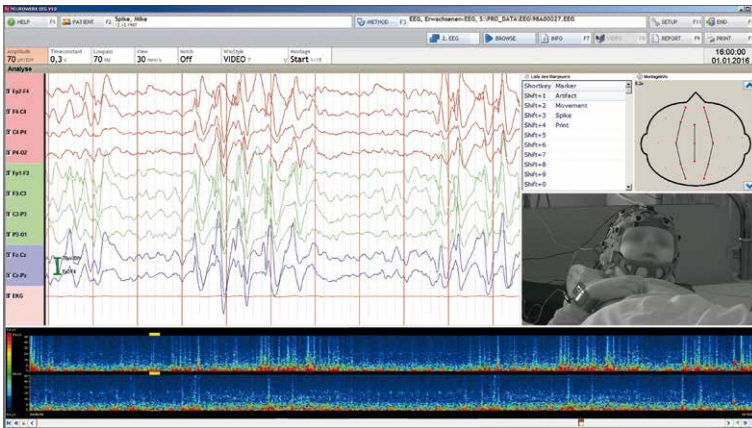
## EEG software for efficient working

- » Automatic amplitude and frequency measurement
- » Density spectral array (DSA), mapping
- » Montage editor for adaptation of the EEG examinations
- » Synchronous full HD video recording
- » Export of EEG, video and results on any media
- » Interfaces and conversion for external evaluation software (e.g. EDF, Matlab)



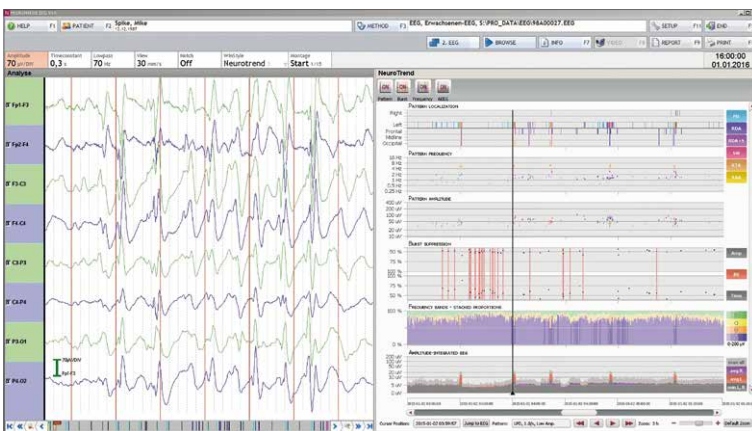
# NEUROWERK EEG

Intuitive software to meet professional demands



## Versatile window layout

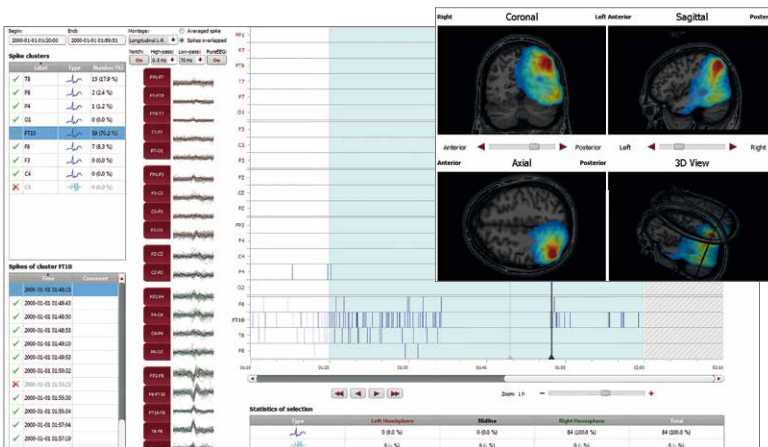
Clear representation of EEG, online spectral analysis (DSA) and video. NEUROWERK EEG provides freely configurable screenforms for all applications – regardless of whether routine EEG or long-term monitoring.



## Online EEG analyses

Parallel to the EEG, online EEG pattern recognition acc. to ACNS\* standard is represented by way of **NeuroTrend**, incl. burst suppression and aEEG, with simultaneous viewing of the patient video in full HD quality.

\*American Clinical Neurophysiology Society



## Effective detection of spikes, source analysis

Further **encevis modules** are offered to expand your NEUROWERK EEG with efficient tools to search for top potentials and their sources in the 3D model. The otherwise time-consuming evaluation of epileptiform events in the EEG is facilitated by reliable detection and a high degree of clarity in the results.



## NEUROWERK EMG



- » Amplifier with 2 or 4 channels
- » Portable system in transport case
- » With desktop PC or notebook





# NEUROWERK EMG

## Flexible examination

NEUROWERK EMG as a complete 2- or 4-channel neurophysiological measuring system for EMG, NCV and evoked potentials provides practically unlimited possibilities for your work in hospitals or surgeries. The system incorporates all methods required in daily routine diagnostics of neurological disorders. Our complete high-grade system renders your diagnostics easier and more efficient. Benefit from our system! You can expect

utmost quality in the examination results. The tried and tested modular hardware and software concept allows customised adaptation to your needs and processes.

NEUROWERK EMG offers the ideal configuration for every application.



### Always the ideal variant

- » With up to 2 electric stimulators and 4 external triggers
- » Modular system for configuration as:
  - EMG/NCS/SEP system
  - EMG/NCS/SEP/AEP/VEP system
  - AEP/VEP expansion (EEG)
- » On instrument trolley or in transport case
- » As a PC system, notebook or with fanless mini PC
- » As a kit for connection to an existing PC

## Individual and flexible expandability

- » NEUROWERK RC remote control for straightforward operation
- » Second electric stimulator for triple stimulation and collision test
- » Connection of any magnetic stimulators
- » Software options: MUNIX, VEMP, etc.
- » Reflex hammer



## Fitted with the best amplifiers

- » With 2 or 4 channels
- » 24-bit A/D converter
- » 50 kHz sampling rate per channel
- » Connection for temperature sensor
- » Internally switchable reference electrode

## EMG software for flexible examinations

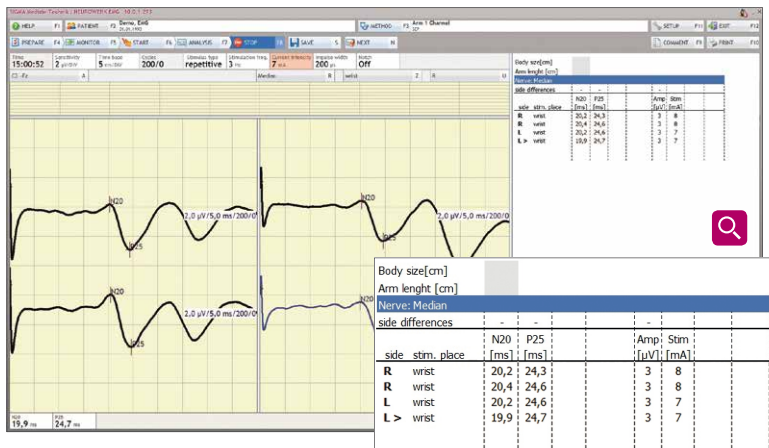
- » Freely configurable sequences and result tables
- » Split screen for lateral comparison
- » Export of the results to an external software (e.g. Excel)
- » Automatic selection and calculation of all parameters (latency, amplitude, area, NCV, and many more)



<b>NCV</b>	motor, sensible, inching, repetitive stimulation, F wave, reflexes	<b>MEP</b>	arms, legs, facialis, incl. F wave for determination of the central motor latencies (CML)
<b>SEP</b>	arms, legs, dermatomes, trigeminus, pudendus	<b>ANS</b>	sympathetic skin response (SSR), heart rate variability (HRV)
<b>AEP</b>	early, middle and late acoustically evoked potentials (AEP), click, tone and burst-evoked stimulation	<b>EMG</b>	spontaneous, voluntary and maximum activity, triggered EMG, automatic quantitative MUP analysis, turn/amplitude analysis, single fiber EMG, macro EMG
<b>VEP</b>	checkerboard pattern stimulation, LED goggles or flash stimulator		

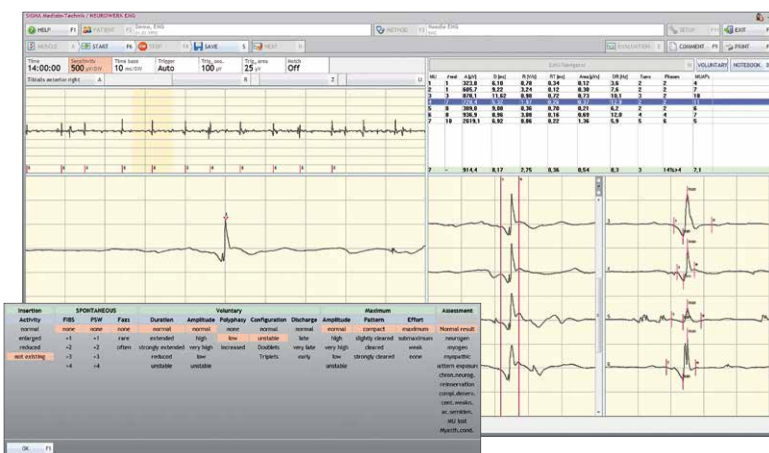
# NEUROWERK EMG

Intuitive software to meet professional demands



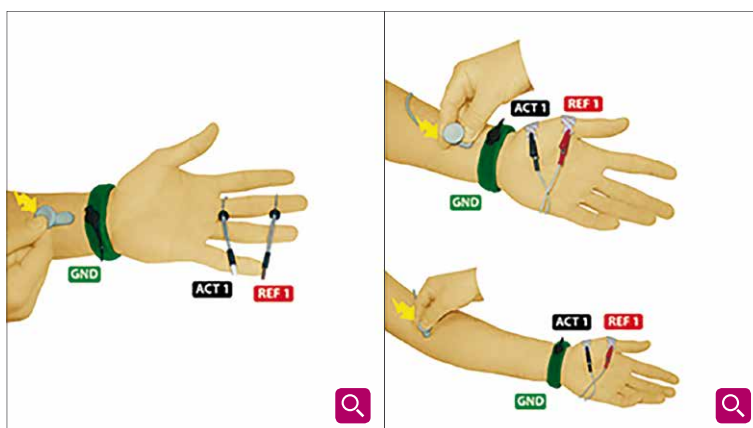
**Always all measurement values in view**

Clear representation of curves in the lateral comparison, incl. calculation of the lateral differences. The results and reports can be sent immediately to your hospital information system (HIS) or medical practice EDP via interface.



**Automatic EMG analysis**

In addition to the manual selection of motor units by the examiner, the automatic EMG analysis provides all MUPs of an EMG sequence simultaneously. Our user-friendly software is rounded off by T/A analysis and analysis of the spontaneous EMG which ensure meaningful results by calculating all relevant parameters.



**Integrated help system**

The Neuroanatomy Guide supports you in your daily work with valuable tips and thus contributes to the reliability of your examination results.



## ACCESSORIES CATALOG

### Accessories and consumables for neurology

You will find a wide variety of high-quality neurological products in our accessories catalog, such as electrodes, electro caps, sensors and pastes. We would be delighted to help you if there are any particular articles that you could not find in our assortment. If you have any general questions, please feel free to contact us at any time.

We can also adapt accessories to your device provided this is not contrary to the fundamentals of the German Medical Products Act.

- » Sales of accessories and consumables
- » EEG and EMG/NCV/EP
- » Customised products/adaptations
- » Expert consulting



## TRAINING

### Methodical training courses for physicians and medical technical assistants

As courses must necessarily concentrate on a narrow range of topics, we endeavour to accommodate to your individual wishes. Following agreement, we are able to take into account the requirements of beginners without previous knowledge, but can also brush up existing knowledge, promote confidence in methodical issues and offer valuable tips for the selection of appropriate accessories. Furthermore, we organise regular advanced training seminars with our regional sales partners.

- » Topics: EEG, EMG/EP/NCV, AEP, VEP
- » Individual topics possible by agreement
- » Offered as basic or advanced training courses
- » Can be performed either in your surgery/hospital or in our training room
- » Training video: Demonstration of electrophysiological examinations (90 min., available on DVD/USB stick)



## SERVICE

### Full service with competence

We are also at your side after installation and comprehensive familiarisation with our devices. We support you quickly and proficiently. Learn more on our website [www.neurowerk.de](http://www.neurowerk.de) or call us on workdays from 8.00 a.m. to 4.30 p.m. through our SERVICE HOTLINE.

**HOTLINE: +49 (0) 37297 – 825 – 55**  
**[service@neurowerk.de](mailto:service@neurowerk.de)**

- » Remote maintenance service for our equipment within 24h
- » Safety checks, including stimulator tests
- » Installation and support for PC networks
- » Software updates and system adaptations for existing systems
- » Customised maintenance agreements with individual contents



manufactured by  
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