



# The next generation of ISIS systems

## » AREAS OF APPLICATION

- › Neurosurgery
- › Spinal Column Surgery
- › Orthopaedics
- › Vascular Surgery
- › Cardiothoracic Surgery
- › Rectal Surgery
- › Thyroid Surgery
- › Ear, Nose and Throat Surgery

# ISIS **XPERT**



**The next generation of inomed ISIS systems:**  
Maximum flexibility for demanding neuromonitoring

# ISIS **XPERT**



» Versatile

» Highly configurable

» Easy to use

## The ISIS system family

With the ISIS system family, inomed offers a complete package of products for multimodal intraoperative neurophysiological monitoring. ISIS systems offer outstanding performance, ease of use, flexibility and versatility. Users can choose between three different system options – **ISIS Xpert**, **ISIS Xpert plus** and **ISIS Xpress**.

Its modular structure and the ability to easily combine different ISIS Headboxes and the ISIS Neurostimulator mean that the system can be individually configured for specific requirements, enabling multimodal intraoperative neuromonitoring.

### Security by design:

- » Integrated into a sturdy cart, making it highly robust and ensuring that all components are protected
- » Optimum surgical hygiene with wipeable mouse, keyboard and screen, and fanless panel PC
- » In-cart storage maximises the life span of accessories

### ISIS **XPERT**<sup>plus</sup>

- » Perfect for advanced neuromonitoring
- » Includes printer and video module
- » Ergonomic, height-adjustable monitor

### ISIS **XPERT**

- » High-performance standard system for multimodal monitoring
- » Wide range of upgrade options



## ISIS **Xpress**

- » Easy to transport
- » Space-saving
- » Highly configurable



### Flexibility by size:

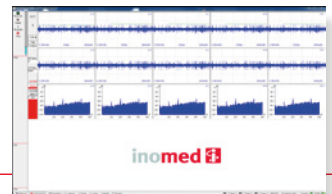
- » Portable ISIS system with lightweight, space-saving case
- » Ideal for transport during service deployment
- » Hand luggage-sized transportable case for comfortable transportation and fast check-in at the airport

**ISIS Xpress** is the portable version of the ISIS system. It features a lightweight, space-saving case, ideal for easy transportation during service deployments or when travelling.

A hand luggage-sized transportable case for easy, safe transportation means that the compact system is perfect for a fast check-in at the airport or from facility to facility.



## » Upgrade to MER



ISIS systems can be upgraded **for use for microelectrode recording (MER)**. The ISIS Headbox MER is a complete hardware system for target site identification for deep brain stimulation. As a full-service provider, inomed also offers a full range of instruments for stereotactic surgery where required.

- » **Comprehensive software package** for use in everyday clinical practice and for advanced research
- » **5-channel amplifier** for extracellular recording
- » **Integrated constant current stimulator** for intraoperative test stimulation
- » **Reusable leads and electrodes** for recording and test stimulation
- » **MicroDrive** for electrode delivery



## > ISIS NEUROSTIMULATOR

The unique, flexible, patented **ISIS Neurostimulator** technology has been specially designed to meet the most demanding intraoperative neuromonitoring requirements.

- > **High-current and direct nerve stimulation** with monophasic, biphasic and alternating pulse waveforms
- > Can be used as a **standalone device** or, via the integrated NeuroExplorer software package, as part of the ISIS system
- > Unique **current control** for safe stimulation



### >> Artefact-free recording through stimulator design

The brand-new, German patented stimulation artefact reduction technology allows displaying even very short-latency and low-amplitude signals. D-wave or corticobulbar MEPs: less overlay means better interpretation possibilities.

### >> Adaptors

Stimulation and recording adaptors for electrode connection:

- > Easy and safe to use thanks to colour-coded ports, connectors and cables
- > Clear, legible labelling for faster electrode connection



### >> ISIS Headbox

The core component of the ISIS systems are the ISIS Headboxes. These advanced amplifier modules offer the following features:

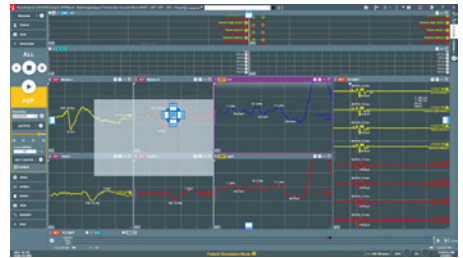
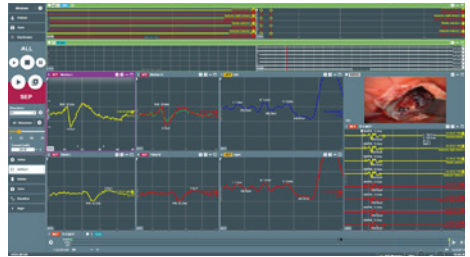
- > Double the number of channels up to 16
- > Improved signal quality
- > Versatile selection especially tailored for demanding application fields



# NeuroExplorer

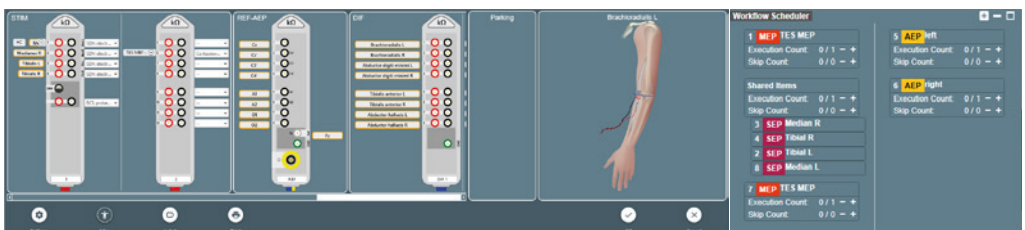
Flexibility on another level – IONM for everyone

All ISIS Xpert and Xpress systems are equipped with the particularly flexible NeuroExplorer software generation. The intuitive NeuroExplorer software offers a host of user-friendly functions, ensures clear overview and is quick to master in the often stressful operating room environment.



## The NeuroExplorer software offers you:

- Modern look, adapted to the hardware
- **Easy to use** due to beginner friendly functions, such as Altas for electrode placement
- **New monitoring possibility:** workflow scheduler. To create your own stimulation workflow, duplicate, group or re-order stimulation windows
- Wide range of pre-set measurement scenarios tested by leading users
- **Rapidly add windows or electrodes on the fly** and move them via drag and drop
- **Multi-channel video window** for up to 4 different sources with synchronised recording directly from the measurement window
- Audio feedback and display of data in microscope. Surgeons can receive information with no loss of time
- Trend view and automatic alerts when thresholds are breached
- Utilise different graphical features, such as superimposing traces and analysis tables for interpretation
- Use incisive time bar for easy review
- **Compose reports in PDF and DOCX** for easy retrospective adjustment
- Data export in different formats, such as XLSX, ASCII and EDF
- **Be the layout artist:** create customised views and desktops to your needs
- **Create and share templates** – save time



## › ACCESSORIES

Devices and high-quality IOM accessories from a single provider. Trust in our wide range of stimulation probes and other accessories manufactured in Germany.

### ■ Needle electrodes for monitoring and stimulation

- › Subdermal needle electrodes for EMG/MEP monitoring and SEP stimulation
- › Special forms for corticobular application, ENT, paediatrics

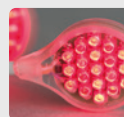
### ■ Stimulation probes and stimulating surgical instruments

- › Bipolar stimulation probes – concentric (BCS), fork and hook probes
- › Monopolar stimulation probes and surgical instruments (dissectors, hooks, raspatories)
- › Mapping Suction Probe among others for continuous mapping by Raabe



### ■ IOM accessories for special applications

- › Grid/TES stimulation matrix for optimal use of grid and strip electrodes
- › pIOM Set for pelvic autonomic nerve monitoring
- › ALM Tube with Channel Select for highly effective vagus monitoring
- › Tympanic and ball electrodes for near-field AEP recording
- › LED goggles for VEP



» You can find our complete range of accessories in our online shop at [shop.inomed.com!](http://shop.inomed.com!)

# ISIS **XPERT**

## SYSTEM FAMILY



### > ADVANTAGES AT ONE GLANCE

- Standard configurations with **16 or 32 full channels** available
- Update with more software options and more channels (**up to 64**) possible anytime
- Three models for every neuromonitoring need (portable, everyday use, high-end research)
- Easy, intuitive software for beginners, many advanced monitoring possibilities for experts
- The **whole range of neuromonitoring** (AEP, brainstem reflexes, EEG, EMG, D-wave, DMS, dynamic mapping, coMEP, tcMEP, MER, NAP, phase reversal, SEP, speech mapping, pIOM, VEP)
- **Unique stimulation artefact reduction** in 12 high-current channels and one direct nerve stimulation channel
- Meets latest GDPR requirements
- **Export data in XLSX, ASCII or EDF** for IOM research
- Multiple connectivity options (several IOM machines, hospital network, OR equipment)
- Thorough documentation (PDF and Word DOCX report, manual and automated screenshots in colour and black and white, Screen2Video, multi-channel video)
- **Large range of IOM accessories** (electrodes, probes, stimulated instruments, LED goggles ...)
- German quality engineering, dedicated support, constant development

# ISIS **XPERT**

## SYSTEM FAMILY



| Configuration                                                                                         | ISIS Xpert | ISIS Xpert <sup>plus</sup> | ISIS Xpress |
|-------------------------------------------------------------------------------------------------------|------------|----------------------------|-------------|
| Sturdy cart with inbuilt system                                                                       | <b>X</b>   | <b>X</b>                   | –           |
| Portable design with laptop and wheeled case with telescopic handle                                   | –          | –                          | <b>X</b>    |
| Maximum number of channels                                                                            | <b>64</b>  | <b>64</b>                  | <b>48</b>   |
| Number of accessory compartments                                                                      | <b>1</b>   | <b>2</b>                   | –           |
| High-performance panel PC                                                                             | <b>X</b>   | <b>X</b>                   | –           |
| Touchscreen                                                                                           | <b>X</b>   | <b>X</b>                   | –           |
| Ergonomic, height-adjustable monitor                                                                  | –          | <b>X</b>                   | –           |
| Printer                                                                                               | +          | <b>X</b>                   | +           |
| Display external video sources on the measurement screen                                              | +          | <b>X</b>                   | +           |
| Integration with Zeiss Pentero® microscopes                                                           | +          | +                          | –           |
| External mute sensor to mute the loudspeaker in the event of disruptive artefacts from electrosurgery | +          | +                          | –           |
| Synchronisation of patient data over the network                                                      | +          | +                          | +           |
| Remote monitoring                                                                                     | +          | +                          | +           |
| Upgrade option to 5-channel MER                                                                       | +          | +                          | +           |
| inomed planning software for DBS                                                                      | +          | +                          | +           |

- X** Included as standard  
**–** Not available with this system  
**+** Available as an additional option

<sup>1</sup> Configuration with the corresponding software module possible

<sup>2</sup> Included in each system

<sup>3</sup> Not included in the standard package

### Software options:

EMG software module<sup>1</sup>  
 SEP software module with PRSEP<sup>1</sup>  
 AEP software module<sup>1</sup>  
 MEP software module<sup>1</sup>  
 VEP software module<sup>1</sup>  
 EEG software module<sup>1</sup>  
 TOF software module<sup>1</sup>  
 pIOM software module<sup>1</sup>  
 Spine software module<sup>1</sup>  
 Software module Channel Select<sup>1</sup>  
 Software module HL7<sup>1,3</sup>  
 iSSS – inomed System Security Solution<sup>2</sup>

# inomed

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