



## Nerve Monitoring: Defining our Standard of Care

### The Neurosign 400 - Powerful Yet Simple Monitoring Of Motor Nerves During Surgery

#### Intended for:

##### Maxillofacial and ENT Surgery

- parotidectomy
- mastoidectomy
- thyroidectomy
- submandibular gland excision
- selective neck dissection
- facial reconstruction

##### Neurosurgery and Otolaryngology

- excision of CPA tumours
- excision of spinal tumours
- removal of peripheral nerve tumours



With 4 EMG channels, a built-in stimulator and a powerful loudspeaker, the **Neurosign 400** is the ideal monitor when operating near a motor or mixed nerve. Use the monitor to locate and identify the nerve, and speed decision-making by using the stimulator to trace functional inter-branch fibres.

**Neurosign** is the most widely used monitor in Europe and has been established in the USA market for 19 years.

The Magstim Company, the manufacturer of Neurosign, is based in the UK and is able to provide practical product support, training and advice from experienced technical experts.

#### **Neurosign - the sensible choice for an excellent monitor**

- **no additional technical staff needed**
- **mains powered**
- **powerful audio of raw EMG gives immediate and intuitive feedback**
- **range of single-use needles and stimulating probes promotes reliability and fixed operating costs**
- **'single button' operation makes setup as simple as possible**

[www.neurosign.com](http://www.neurosign.com)

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All the products carry the CE mark and comply with Medical Device Directive 93/42/EEC and are manufactured to Quality Systems BS EN ISO 13485.

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The **Neurosign 400** provides comprehensive motor nerve monitoring in an easy-to-use package. With a bright display panel and a powerful audio amplifier coupled with a 6" diameter speaker with excellent low-frequency response, the **Neurosign 400** provides all the information a surgeon needs when operating near a motor nerve. The stimulator allows the surgeon to identify and locate neural tissue with accuracy, using a variety of stimulating probes individually designed for specific surgical procedures.

The front panel is a flat, wipe clean surface, allowing access to all the more commonly used features in a single key press. The interface is intuitive to use, keeping the learning curve as short as possible.

All the electrodes and probes are single-use devices, ensuring reliability, quality of product, and giving a defined cost to each procedure.



### Key features and benefits:

- line powered - no batteries to charge or run out
- 14W audio amplifier - powerful enough to overcome background noise in the operating theatre
- Constant Current or Constant Voltage stimulator - surgeon's preference
- switches ON in same state as when switched OFF - in many theatres, the only button to press will be the ON/OFF switch
- store data in non-volatile memory, print results at the office
- individual surgeon's setups can be saved, easing theatre staff workload
- keypanel manufactured from bactericidal material to encourage safety in theatre
- Dedicated printer **included** with system

### Specifications:

#### Display:

125 x 95mm electroluminescent, 320 x 240 pixels

#### Stimulator:

0.05mA to 5mA in 0.05mA steps      Constant Current  
50mV to 5V in 0.05V steps      Constant Voltage  
200µs pulse width (default); 100µs to 500µs range

#### Preamplifier:

Analogue      10V peak to peak output  
Channels:      4  
Signal Input Range:      5µV to 10mV peak  
Bandwidth:      10Hz to 5kHz ±3dB  
Noise:      <10mV p-p at output  
Gain:      477

#### Consumables:

Twin needle electrodes, 20mm      4 per usage  
Single needle electrode, ground, 20mm      2 per usage  
Stimulating Probe      1 per usage

#### Stimulating Probe (single use):

Bipolar      (general work and will penetrate 3 - 4mm)  
Monopolar      (general work, for mapping)  
Concentric      (very accurate, no real penetration)

**For a complete list of available stimulating probes, please visit [www.neurosign.com](http://www.neurosign.com)**

#### Main Unit:

Digital signal processing, analogue audio      14W rms  
Audio  
115/230V 50/60Hz operation

#### Classification:

Class 1, Type BF applied parts  
EN60601-1; CSA 22.2601-1; CE marked

#### Physical:

Size      340 x 210 x 140mm  
Weight      8kg

### Available from:

**For a demonstration, please contact the Company**