

The Neurosign 100 - Simple Nerve Monitoring during Mastoid and Thyroid Surgery

Intended for:

ENT and General Surgery

- · mastoidectomy
- · thyroidectomy
- parathyroidectomy



With 2 EMG channels, a built-in stimulator and a powerful loudspeaker, the **Neurosign 100** is ideal for when a simple monitor is required for facial and laryngeal nerve monitoring. Since there is no screen, this monitor is suited for use by surgeons operating with a microscope and where the muscles controlled by the nerve at risk occupies a small physical area.

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

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N100

Constant Current

200µs pulse width

Mastoidectomy

Since the nerve in the middle ear is a single trunk, it may be monitored using any part of the facial musculature controlled by the facial nerve. Normally, the frontalis and orbicularis oris are utilised. Needle electrodes are inserted into these muscles, and if the nerve is stimulated, either by mechanical movement or by the built-in stimulator, these needles detect the voltage within the muscle and the Neurosign 100 amplifies it so that the surgeon hears the response.

The response is instantaneous and concomitant with the surgical action.



If the nerve is inside the canal, it may be stimulated using the bipolar stimulating probe using sufficient current to overcome the resistance of the bone. If the nerve is dehiscent, it may be stimulated using either the bipolar or the more precise concentric probe at a reduced current.

Thyroidectomy and Parathyroidectomy

Instead of needle electrodes, the Neurosign Laryngeal Electrode is used. This is a flexible, conductive ink electrode which adheres to a standard endotracheal tube. The recurrent laryngeal nerves can be stimulated using the bipolar probe; this technique will also monitor the Vagus nerve and the superior laryngeal nerves, which are not normally intentionally located during this surgery.

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 stimulator for safety
- simple controls no software menus ٠

Specifications:

Display:

Two 20 segment bargraph displays

Stimulator:

0.05mA to 5mA infinitely variable

Preamplifier:

Analogue	10V peak to peak output
Channels:	2
Signal Input Range:	5µV to 10mV peak
Bandwidth:	10Hz to 10kHz ±3dB
Noise:	<10mV p-p at output
Gain:	500

Consumables:

Triple needle electrodes, 20mm	2 per usage
or	
Laryngeal electrode	1 per usage
Otine deting Droke	4
Stimulating Probe	i per usage

Stimulating Probe (single use):

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

Main Unit:

Analogue processing, analogue audio Audio 115/230V 50/60Hz operation

14W rms

Classification:

Class 1, Type BF applied parts EN60601-1; UL 544; CE marked

Physical:

Size Weight 290 x 260 x 100mm 6kg

Available from:

For a demonstration, please contact the Company

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