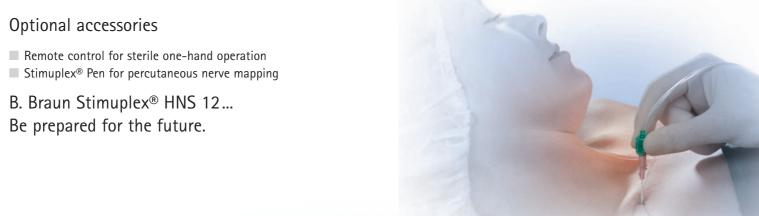
Regional Anesthesia Regional Anesthesia

Advanced ergonomics: Ergonomic shape and large display

User benefits

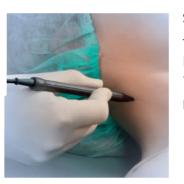
- Digital ratchet dial for precise and tactile current adjustment
- Alarm screens and acoustic signals inform the user of any relevant deviation
- Direct access keys allow quick switching between stimulus current and impulse duration
- Easy-to-navigate menu for selecting values and advanced settings



Product	Sales unit/Pcs.	Code No. (REF)
Stimuplex® HNS 12	1	489 2098
with electrode cable for all B. Braun needles		
Electrode cable for Stimuplex® HNS 11/12,	1	489 2070
length 125 cm		
Stimuplex® Pen	1	489 2099
device for percutaneous nerve mapping		
Remote Control for	1	489 2216 B
sterile one-hand operation		
Fingerrings for Remote Control RC	1	489 2224 B
Knob for sterile handling	1	489 2283

Well-balanced range of stimulation needles

To achieve the best stimulation and most effective blockade we recommend the use of Stimuplex® HNS 12 with our well-proven range of stimulation needles (Stimuplex® D and Stimuplex® A) and catheter sets (Contiplex® Tuohy, Contiplex® D). All those needles are compatible with all B. Braun Stimuplex® nerve stimulators.



Stimuplex® Pen

The new Stimuplex® Pen for percutaneous nerve mapping. It helps to pre-assess the puncture site. Also suitable for educational and training sessions.

PNB equipment by B. Braun ... achieve more.



Stimuplex® HNS 12

Renowned the world over...

The high end in nerve stimulation

B BRAUN SHARING EXPERTISE

B. Braun Melsungen AG 34209 Melsungen Germany Tel +49(0) 56 61 71-0 www.bbraun.com





An ongoing evolution in nerve stimulation

Like all natural processes, regional anesthesia is dictated by evolution. B. Braun has spearheaded evolutionary developments in this exciting field with the launch of its new Stimuplex® HNS 12. This higher species of nerve stimulator offers enhanced safety and improved outcomes.

Evolved from the world-renowned HNS 11, Stimuplex® HNS 12 is the next step up the evolutionary scale. This new nerve stimulator still includes all the well-proven features alongside new trendsetting functions that make nerve stimulation for peripheral nerve blocks even safer and more efficient than ever before.

Combined with our well-balanced range of stimulation needles and catheter sets, B. Braun offers all the material you need to adapt perfectly to the ever-changing regional anesthesia environment.

... Now,
Better than Ever: Stimuplex® HNS 12



Large full graphics display

The enlarged full graphics LCdisplay gives you all necessary information at a glance. Good visibility is ensured by a wide angle of view.

The following information is displayed on the stimulation screen at all times:

- Stimulus amplitude in mA (large digits)
- Current range
- Stimulus duration in ms
- Stimulus frequency in Hz
- Load impedance in k Ω
- Charge delivered (in nC, if activated)

Ergonomic shape

The new housing fits perfectly in your hand, allowing a secure and convenient grip.













Scale 1:1

B BRAUN

Convenient menu navigation

Advanced

Digital dial

tactile feedback.

Direct access keys

Precise and tactile current

adjustment with convenient

Direct access keys let you (mA

conveniently adapt the most

settings to the clinical

(amplitude range – mA,

stimulus duration - ms, stimulus frequency - Hz).

environment.

important and frequently used

Ergonomics

Adjust your default settings conveniently by navigating through the menu with the arrow keys on the menu keypad. Just press the power on/off button for less than a second to jump back to the stimulation screen.

Thanks to its large display, the new Stimuplex® HNS 12 generates more accurate information than any other nerve stimulator.

The arrow keys of the menu key-pad let you navigate easily through the menus and allow you to preset values and options. The Stimuplex® HNS 12 always starts up with these settings when switched on.

Menu navigation

MAIN MENU

Preset impulse duration in the stimulus

Current range Stimulus duration

Current thresh

Frequency

Stimulus duration

duration setup.

An easy-to-understand menu structure lets you enter all permanent settings effortlessly. Advanced settings can be entered in sub-menus.

0 - 5 mA

0.40 ms



timulus duration

0 - 4 mA

4.00 ms

timulus duration

Current range

Preset your standard range in the stimulus current range setup.

Advanced safety



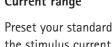


Impedance check

The HNS 12 alarms you to unacceptable impedance levels that can be caused by a loose electrode cable or dry skin electrode.

Threshold current

Depending on the pre-set impulse duration, outlined digits indicate that the recommended threshold current was under-run and the needle may be too close to the nerve.



Stimuplex® HNS 12 with SENSe

To achieve the most reliable nerve stimulation



Regional Anesthesia



Test Winner!* Stimuplex® HNS 12 – by far the b

Stimuplex® HNS 12 with SENSe

The large full graphic LC-display gives you all necessary information at a glance. High contrast and a wide viewing angle ensure excellent readability.

The following information is permanently displayed:

- Stimulus amplitude in mA (large digits)
- Stimulus duration in ms
- Stimulus frequency in Hz
- Load impedance in kΩ
- Charge delivered (in nC, if activated)

User benefits

- Now with SENSe technology for safer, easier, and more efficient nerve stimulation***
- Advanced ergonomic shape and large display
- Digital ratchet dial for precise and tactile current adjustment
- Quick access buttons allow direct switching of key parameter values during procedure
- Alarm screens and acoustic signals inform the user of any relevant deviations







^{*} An objective assessment of nerve stimulators for peripheral nerve blockage. D. Jochum et al., Anaesthesia, 2006, 61, pages 557-564.
** Use of sequential electrical nerve stimuli (SENS) for location of the sciatic nerve and lumbar plexus, Urmey et al., Regional Anesthesia and Pain Medicine, 2006, 31, pages 463-469.

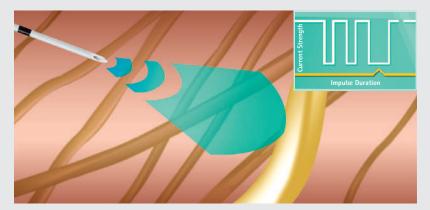
est nerve stimulator.

What is SENSe?

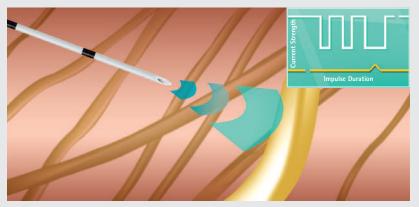
Easier with SENSe

SENSe is a further development on the Stimuplex® HNS 12 offering more patient safety and improved clinical efficiency. In practice, marginal needle movements often lead to loosing the muscle twitch. The SENSe technology (Sequential Electrical Nerve Stimulation) is a sequence of two fixed impulse durations

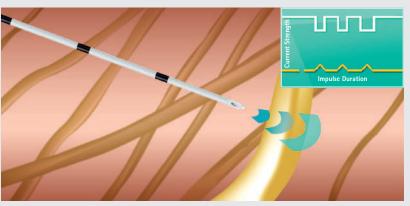
of 0.1 ms along with a third longer impulse duration. This results in getting the first muscle twitch already at a distance from the nerve and requires less adjustments to the amperage control, while maintaining the visual feedback.



From the alternating sequence of three impulses, the third longer impulse stimulates the nerve already at a distance. One muscle twitch is visible and indicates that the needle is directed at the nerve.



The stimulation needle is further advanced toward the nerve while SENSe maintains the motor response. Current strength adjustments lead to definite reductions of the third impulse.



At the threshold level of approximately 0.3 mA, not one but three muscle twitches are visible as all three impulses elicit a motor response, thus SENSe allows easier and more reliable nerve localization for better blocks. If the muscle twitch has been lost, the third longer impulse helps to easily find it again.

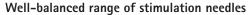
Accessories complement high performance



Stimuplex® HNS12 set The Stimuplex® HNS12 suitcase allows safe and tidy storage for the nerve stimulator and all accessories.

Product	Sales unit/ pcs.	Code No. (REF)
Stimuplex® HNS 12 with electrode cable for all B. Braun needles	1	4892098
Stimuplex® Pen device for percutaneous nerve mapping	1	4892099
Electrode cable for Stimuplex® HNS 11/12, length 125 cm	1	4892070
Battery cover for Stimuplex® HNS12	1	4892094
Suitcase for Stimuplex® HNS12	1	4892095
Test resistance for Stimuplex® HNS12	1	4892096
Knob for sterile handling	1	4892283
Stimuplex® Switch	1	4892090





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All B. Braun needles are compatible with all B. Braun Stimuplex® nerve stimulators.



Stimuplex® Pen

The Stimuplex® Pen for percutaneous nerve mapping. It helps pre-assess the puncture site. Also suitable for educational and training sessions.

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