

PAJUNK®

MultiStim



Plexus

MultiStim VARIO

The MultiStim VARIO is used for indications of anaesthesiological nerve stimulation

- for identification of peripheral nerves in conduction anaesthesia
- for percutaneous stimulation in neuromuscular monitoring in general anaesthesia.

Thanks to its pocket-sized case and its simple push-button function, the device can be operated **with one hand**. Audio-visual signals with adjustable volume permit full concentration on the patient.

Equipped with a precise microprocessor-monitored constant current control, the MultiStim VARIO offers **all impulse patterns and -frequencies required for stimulation**. They guarantee optimal reliability and objectivity – for the localization of the nerve, as well as for the measurement of neuromuscular blocks induced by muscle-relaxants.

The **bandwidth of the stimulation impulse** is adjustable **step by step**, from 0.1 to 1.0 ms. Aside of the preset nominal current intensity, the current actually flowing through the patient can be indicated by keystroke.

For **nerve-block anaesthesia**, PAJUNK® has developed cannula with a variety of different tip-geometries, lengths and diameters. They serve as differential electrodes for the localization of peripheral nerves, and they are connected to the patient line of the **MultiStim VARIO** by means of a safety-connection. Ordinary, commercially available stimulation electrodes serve as indifferent electrodes.



A patient line with two clips is available for the connection of stimulation electrodes in percutaneous application.

The special features of MultiStim VARIO at a glance

- Functions for **percutaneous relaxation observation** in general anaesthesia (50/100 Hz, TOF, DBS)
- Available **Constant current 0–60 mA**, adjustable in 0.01 mA steps
- **Adjustable stimulation impulse width**
0.1 ms, 0.3 ms, 0.5 ms and 1.0 ms
- **PAUSE** function to change the stimulation parameters without delivering impulses



Handle for percutane nerve stimulation



The **MultiStim VARIO SWITCHBOX** serves for the switchover between invasive and percutaneous nerve stimulation. It may be used **exclusively with MultiStim VARIO!**

Permanently

REGIONAL-Anaesthesia TWITCH

GENERAL-Anaesthesia TETANUS

DOPPEL-IMPULSFOLGE
DOUBLE-BURST


VIERER-SEQUENZ
TRAIN-OF-FOUR

MultiStim PLEX




The MultiStim PLEX is a very **easy-to-use nerve stimulator** for plexus anaesthesia, which is employed primarily for **training and instruction purposes**. In comparison with the MultiStim VARIO, here the functions for percutaneous relaxation monitoring, the PAUSE-function, as well as the adjustable stimulation impulse bandwidth were omitted. **No relaxation monitoring** can therefore be performed with this device.

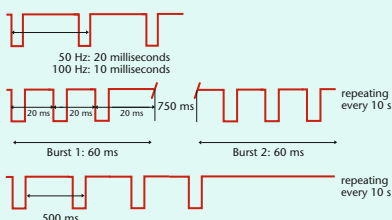
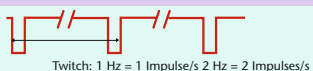
Performance features for all MultiStim appliances

- Intensity of the stimulation current is selected by means of \pm button and is shown on the **large, easily readable LCD-display**
- **Switchover-option** between **adjusted and actual** intensity of the stimulation current at any time by keystroke 
- **Additional audio-signal** with adjustable volume at every impulse discharge, permits closer observation of the direct patientreaction
- **Precise microprocessor – monitored constant current control**, with high performance output stage.
Range of stimulation current: 6 mA, 0 Ω –12 k Ω
Range of stimulation voltage: max. 65 V_s
Signal shape: mono-phase, negative rectangular impulses
Power supply: 9 V alkaline battery
- **Permanent variance comparison of the current**, with visual and acoustic indication of deviation of the intensity of actually flowing current from the adjusted current intensity
- **Very exact localization of the nerves:** Constant current range for the identification of the peripheral nerves 0–6 mA – adjustable in 0.01 mA-intervals
- Encoded connecting plug at the cable **prevents wrong polarity**, and limits the output current to max. 6.0 mA during the identification of peripheral nerves (Safety function)
- **Visual and acoustic warning signal** at disturbance/interruption of the electrical circuit

The special features of MultiStim PLEX at a glance

- The **stimulation impuls width** is 0.1 ms = 100 μ s (microseconds) 
- The **Constant current** lies between 0–6 mA, adjustable in 0.01 mA steps
- The device is particularly suitable for **training purposes**

programmed impulse patterns



PLEX

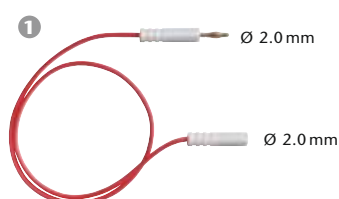
VARIO

Accessories MultiStim



MultiStim VARIO SWITCHBOX

Product	Item no.
MultiStim VARIO incl. plastic case and patients cable to connect stimulation cannula; Nerve stimulator for peripheral conduction anaesthesia and neuro-muscular monitoring	1151-94-10
MultiStim VARIO SWITCHBOX for switchover between invasive and percutaneous nerve stimulation; to be exclusively used with MultiStim VARIO!	1151-94-15
MultiStim PLEX incl. plastic case and patients cable to connect stimulation cannula; Nerve stimulator für peripheral conduction anaesthesia	1151-94-20



Accessories	Size	Type	PU	Item no.
1 Extension cable, 40 cm, re-sterilizable, sterile single packaged	2.0 – 2.0 mm	male – female	10	01151-861F
2 Patients cable to connect stimulation cannula; Male connector Ø 2.0 mm and clamp for ECG-electrodes				1151-94-02
3 Patients cable for percutaneous stimulation (relaxation monitoring) not included in delivery; 2 snap-fastener connectors for ECG-electrodes				1151-94-03
4 Percutane, bipolar Stimulating Handle with extractable Cannula Guiding, autoclavable to be used exclusively with MultiStim VARIO SWITCHBOX and MultiStim VARIO!				1151-94-16

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