NMT Module
(Neuromuscular Transmission)
HN-100

Enhance Patient Safety in the OR and ICU

While multiple methods are available to monitor neuromuscular transmission (NMT), this device utilizes surface electromyography (EMG) to measure the compound muscle action potential (CMAP). It applies controlled electrical stimulation to a peripheral nerve—typically the ulnar or tibial nerve—and records the resulting CMAP from the corresponding muscle.

By quantifying the depth of neuromuscular blockade, including deep levels, this technology enables safer, more individualized anesthesia management. It assists clinicians in optimizing neuromuscular blocking agent dosing and ensuring adequate recovery and reversal prior to extubation.

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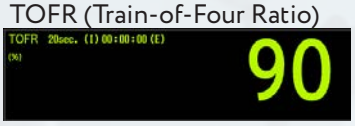
Sample Displays

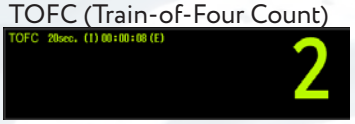
Waveform

Measurement Value

TOFR (Train-of-Four Ratio)

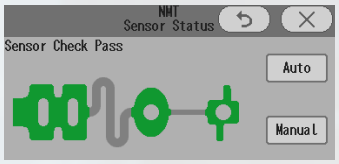


TOFC (Train-of-Four Count)



PTC (Post-Tetanic Count)

Sensor Verification

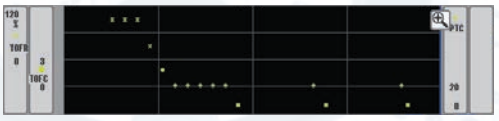


Data Review

Tabular Trend

	07/18 13:56	13:57	13:58	13:59	14:00	14:01	14:02
TOFR [%]	90	30					
TOFC		2	0	0		0	
PTC				7			7

Trend



Configuration

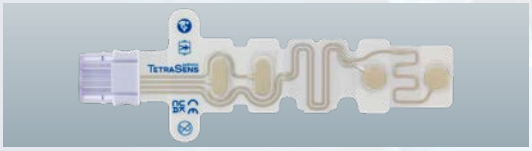
Patient Monitor
DS-1200 System

NMT Module
HN-100

TetraCord with EZClick™
SEN2221

Accessories

TETRASENS with EZClick™
SEN2230



TETRASENS Pediatric with EZClick™
SEN2013

Specification

Dimensions (W x H x D)	
40 mm x 100 mm x 135 mm / 1.6 inch x 3.9inch x 5.3 inch	
Weight (not including the optional accessories)	
0.4 kg / 0.9 lbs	
Stimulation	
Current	10 - 60 mA ±25%
Pulse Width	200 µs ±5% or 300 µs ±5%
Stimulation Settings	
Auto Mode	Automatic Stimulation Setting Auto mode can set the current to 20% above the point of maximal response (supramaximal current level). If the module is unable to reach the maximal response, the module will default to delivering the maximal stimulus, 60 mA at a pulse width of 300 µs.
Manual Mode	Stimulation Settings: 10, 20, 30, 40, 50, 60 mA Pulse Width Settings: 200 µs, 300 µs

Stimulation Pattern	
Train-of-Four (TOF)	A sequence of 4 consecutive stimulations every 500 msec (2 Hz). Interval settings: 20 sec, 1 min, 5 min, 15 min, 60 min selectable. Also performs train-of-four ratio (TOFR) or train-of-four count (TOFC) calculations.
Single Twitch (ST)	Single stimulation every 10 sec (0.1 Hz).
Post Tetanic Count (PTC)	PTC may be used during periods of profound neuromuscular block when TOF stimulation fails to elicit a twitch such that TOFC = 0. The PTC measurement consists of a 5-second, 50 Hz tetanic stimulus followed by a 3-second pause and then a single supramaximal stimulus. This is repeated until no response is elicited, up to a maximum of 20. No response shall be detected if two consecutive stimuli fail to elicit a response.

This device is used by connecting it to the DS-1200 system.
Displayed information relies on settings within the patient monitor, therefore, refer to the monitor's operation manual to perform any adjustments.

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