Nicolet™ VikingQuest Desktop

Specifications

General Specifications

Power Supply 100/120 V, 230 V± 10%, 50 Hz or 60 Hz
Power Consumption Approximately 115 W, depending on model of printer and monitor
Dimensions Approximately 45" H x 21" W x 32" D (114 x 53 x 81 cm)
Weight Approximately 150 lbs (68 kg) with 19" monitor, cart, isolation box and HP InkJet printer
Environmental Limits
Operating (in use)
Temperature: 60 to 90° F (15.6 to 32.2° C)
Relative Humidity: 20-80%, non-condensing
Altitude: 0-10,000 ft, (0-3 km)
Non-operating (in storage)
Temperature: 0 to 132° F (17.7 to 55° C)
Relative Humidity: 10-90%, non-condensing
Altitude: 0-40,000 ft (0-12 km)
Features System includes custom cart with isolation transformer/power supply

Computer

The VikingQuest Desktop System uses a desktop computer. Please see your Nicolet representative for the latest computer specifications that are shipped with the system. Below are the specifications.
Processor Core 2 Duo with minimum speed of 2.0 GHz
Hard Drive Minimum of 80 GB
RAM Minimum of 2 GB
Display Resolution 19" LCD (1280 x 1024)
Operating System Microsoft Windows 7 32-bit or Windows XP (SP3)

Averager Capabilities

Number of Channels 4 Channels
Display Modes Normal, odd and even, normal and plus/minus, and plus/minus
Mode Normalized dual buffer averaging with choice of display modes
Artifact Reject Fixed or variable threshold with adjustable delay of reject start time, or off, depending on test
Averager Display Sensitivities
0.001 µV/division to 10 mV/division in 22 steps depending on test

Waveform Acquisition, Display and Storage

Timebase Range 0.2 ms/division to 5 sec./division in 23 steps depending on test
Timebase Type Single, dual and individual, independently-selectable in specific tests
Waveform Trigger Computer and manual control, selectable for positive and negative slope and input channel
Waveform Delay 0 to 10 divisions in 1 division steps depending on test
Waveform Storage Number of waveforms that can be stored permanently varies depending on the specific test
Free Run Storage Store multiple records of free run EMG data and sound for up to 120 seconds each. 40 recordings/muscle
Resolution 16-bit A/D converter with 1 µs effective time resolution
Features Roll and zoom capability in specific tests

External Stimulus Control

External Stimulus Output Standard TTL logic levels
External Stimulus Input Standard TTL logic levels
Input for Reflex Hammer

Amplifiers

Number of Channels 2, 4
Sensitivity 1 µV/division to 10 mV/division in 13 steps, 2V peak-peak max., full scale output
Input Impedance >100 MΩ
Common Mode Rejection Ratio
110 dB, typical; >105 dB at 50 to 60 Hz, typical
Low Filter Settings 1 or 2 pole type with 6 or 12 db/Octave roll-off, software selectable settings of 1, 2, 5, 10, 20, 30, 150, 500, 1K, 2K, 5K (Hz)
High Filter Settings 2 pole type with 12 db/Octave roll-off; settings of 15, 30, 100, 250, 1.5K, 2K, 3K, 10K (Hz)
Notch Filter 50 Hz, 60 Hz, On or Off, in all tests
Noise <1 µV RMS from 1 Hz - 10 kHz with input shorted
Safety Isolation Fully optically isolated European isolation of type BF

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Temperature Meter

Built-in temperature meter with optional temperature probes

Isolated Electrical Stimulator

Independent Outputs 1 or 2 channel
Stimulus Intensity 0 to 100 mA or 0 to 400 V continuously adjustable intensity within user selectable maximum range into a 4 kW load
Stimulus Duration 0.01 - 1 ms
Stimulus Modes Single, train, recurrent and non-recurrent operation
Stimulus Rate 0.1 - 100 per second, depending on test
Isolation Features Fully isolated outputs
Level Control Console/Remote mode for adjusting stimulus intensity either from console or remotely from electrical stimulator probe
Stimulus Type Choice of stimulus type: selectable constant current or constant voltage
Stimulator Probe (Handpiece) Electrical stimulator probe with reversible polarity and optional stimulus intensity control
Level Readouts Separate current (or voltage) readout on screen for each waveform
Features "Impedance limit" indicator in constant-current mode when stimulus electrode impedance is too high to allow delivery of requested current. Removable isolated electrical stimulus unit for placement close to patient

2015 Visual Stimulator (optional)

Refer to separate product specifications

LED Goggles Visual Stimulator (optional)

LED Stimulus
High efficiency red LEDs (635 nm) in 3 x 5 array in each eyepiece
LED Flash Rate 0.1 to 100 per second
LED Flash Duration .01 to 1 msec in .05 steps under software control
System Interface Single 15' cable

Auditory Stimulator (optional)

Signal Types Click, tone pip or tone burst
Stimulus Rates 0.1 - 91.1 per second in 20 steps, 0.2
Stimulus Intensity 0 to 139 dB pSPL or -31 to 109 dB nHL, depending on stimulus type and frequency and transducer type
Stimulus Attenuators Keyboard controlled, separate units for right and left signal channels, each with 140 dB dynamic range selectable in programmable step size
Click Polarity Condensation, rarefaction and alternating
Click Duration 100 µsec
Tone Frequencies 250, 500, 750, 1K, 1.5K, 2K, 3K, 4K, 6K, 8K (Hz)
Tone Pip Ramp 2 cycles
Tone Pip Plateau 0 cycles
Tone Pip Envelope Blackman
Tone Burst Ramp 10 ms
Tone Burst Plateau 200 ms
Tone Burst Envelope Linear
Noise Masking Broadband, 0 to -40 dB in 8 steps, Differential
Transducers (300Ω)
TDH-39 Headphones; TIP 300 Insert Phones; Bone Vibrator

NicVue™ Patient Administrator Software (optional)

Manage Nicolet EMG, EP, EEG and Monitoring data through a centralized interface
Integrated to Microsoft Access™ database

Quality Standards

Manufactured, designed, developed and marketed by CareFusion NeuroCare under ISO 13485

Compliance/Regulatory Standards

Designed, tested, manufactured and certified to meet the following domestic (USA), Canadian, European and International Standards:
UL 60601-1 Medical Electrical Safety Standard (USA)
CAN/CSA-C22.2 no. 601.1-M90 Medical Electrical Safety Standard (Canada)
EN/IEC 60601-1 Medical Electrical Safety of Medical Equipment (International and Europe)
IEC 60601-2-26 Particular Safety of electroencephalographs equipment
IEC 60601-2-40 Particular Safety of electromyography and evoked response equipment
EN 60601-1-2 Collateral safety standard for EMC
European Community (CE Mark)
Class 2B, Medical Device Directive (MDD) product certified by N.V. Kema, Arnhem, The Netherlands, Notified Body (ID No. 0344)

CE 0344

Specifications, design options and terms quoted are subject to change without notice
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