

# Nicolet™ v44 Amplifier

## Specifications

### v44 Amplifier

#### System Configurations

Sleep, EEG, ICU monitoring and LTM

OR and non-OR applications

Cart mount and wall mount options

**Analog/Digital Converter** 16 bits

**ADC Resolution Voltage** = 0.153  $\mu$ V

**DC Offset Tolerance**  $\pm$  900 mV

**Channels (AC Inputs)** 32 isolated EEG, 9 configurable as bipolar (24-32)

**Maximum Input Range**  $\pm$  5 mV

**Bandwidth** 0.053 - 500 Hz

**Noise** < 1.5 $\mu$ V pk-pk @ 0.1 - 100 Hz (except channels 31, 32 and

OR channels < 2 $\mu$ V p-p @ 0.1 - 100 Hz)

**Input Impedance** > 100 M $\Omega$  (common mode)

**CMRR at Patient Inputs** > 115 dB @ 50 - 60 Hz, with active patient ground connected (except channels 31, 32 and OR channels > 100 dB @ 50-60 Hz with active patient ground connected)

**Channel Crosstalk** < -40 dB

**Amplifier Sample Rate (under software control)** 125, 250, 500, 1000, 2000

**Calibration** Square wave, 1, 5, 10, 20 sec period, 10, 50, 100, 1000  $\mu$ V amplitude

**Input Bias Current** < 5 nA

**Anti-Aliasing Filter Cut Off Frequency** 500 Hz

**Differential Input Impedance** 40 M $\Omega$

**Interface to Amplifier** Ethernet

**Channel Hardware Gain** 410

**Deblock** Yes

#### Integrated SpO<sub>2</sub>

**Channels (DC Inputs)** 12 non-isolated

- Analog/Digital Converter 16 bits

- Maximum Input Range  $\pm$  5V

- ADC Resolution 153  $\mu$ V

- Bandwidth DC - 120 Hz

#### Additional Ports

- RS232 serial ports (2)

- Auxiliary I/O

- Panasonic Camera Control port on amplifier

- Isolated SpO<sub>2</sub>

- Isolated patient event button

- Microphone input

- C64/C128 interface

- Synchronized video input

- Picture-in-picture input (optional)

- Yolk input

- Photoc output

- Calibration output

#### Headboxes

v44 requires one of the following:

- Clinical headbox with built in impedance and display

- Clinical headbox with head cap adapter and built in impedance and display

- OR headbox



### Compliance/Regulatory Standards

Designed, tested and manufactured 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

**EN 60601-1-2** Collateral safety standard for EMC

**European Community (CE Mark)**

Class 2B Medical Device Directive (MDD) product

**Patient Isolation** BF

Specifications, design options and terms quoted are subject to change without notice  
Advanced Technology Patent Pending

# Nicolet™

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