



COVIDIEN

positive results for life™

Sandman™ Digital 32+™ amplifier

The *Sandman Digital 32+* amplifier (*SD32+*) has been designed specifically for use with the *Sandman Elite™* sleep diagnostic software

- Featuring built-in Nellcor oximetry for simplified calibration and tracking of true SpO2 and pulse rate values
- Convenient LCD screen to display the impedance check, signal quality check, numeric digital values or montage setup at the patient's bedside
- Plug-and-play interface with *GoodKnight™ 425ST Bi-Level™* device via *Sandman elink™* adapter
- Slim, lightweight headbox with quick disconnect for easy patient mobility
- Fully programmable references, filters, gains and sampling rates from within *Sandman Elite* software
- Multireferencing and re-referencing of any channel during collection from within *Sandman Elite* software
- Flexibility for your entire sleep or neurodiagnostic recording needs

AMPLIFIER

- Digital conversion immediately after signal is received from electrode and/or sensor
- Software high/low frequency filters are fully customizable
- Programmable calibration and electrode impedance check for all channels
- Signal amplification—20 levels for DC channels, 9 levels for AC channels
- True 16-bit resolution
- Sampling rates selectable up to 8,192 Hz
- Optically isolated for patient protection
- Common mode rejection ratio >100 dB
- DC offset ± 300 mV/Leakage <100 μ A

LCD GRAPHICS SCREEN

- 4 convenient and easy to use functions can be performed at the patient's bedside from the amplifier: impedance/signal quality check, montage review, numeric display of DC channels

POWER

- Isolated medical grade AC/DC adapter (Class I, Type B), providing 15 V DC

HEADBOX

- Compatible with standard 1.5 mm electrodes, sensors and inputs
- Connects to amplifier via docking station or 6' cable
- Convenient strap for easy patient mobility

CHANNELS

- 40 Inputs (including up to 16 DC)
 - 32 monopolar AC inputs (8 DC optional)
 - 8 bipolar AC inputs (DC optional)
 - 1 temperature channel
 - 1 calibration output channel
- SpO₂, Pulse rate
- *GoodKnight 425ST Bi-Level* device (Pressure, Flow, Tidal Volume, Instant Tidal Volume, Peak Flow, Leak, Respiratory Rate, Inspiratory/Expiratory Ratio)



Sandman elink Adapter

SANDMAN elink ADAPTER

- Plug-and-play, state-of-the-art Ethernet interface
- Plenum cabling to control room, 100'-250' (30-76 meters)

GOODKNIGHT 425ST BI-LEVEL DEVICE (OPTIONAL)

- Adjustable CPAP/bi-level pressures via *Sandman* software remote control
- Delay ramp feature (up to 30 minutes), starting at any pressure
- No calibration required
- H2O heated humidification

PULSE OXIMETRY

- Built-in Nellcor oximetry for simplified calibration
- Provides both SpO₂ and pulse rate channels
- 2-3 second averaging for sleep labs

DC EXPANSION BOX (OPTIONAL)

- 8 DC inputs with a full range of ± 5 V
- Connect any external DC device such as: pH, CPAP, bilevel, ET/CO₂

MULTIPLE APPLICATIONS

- PSG – Sleep Diagnostics
- EEG – Neurodiagnostics
- EP – Evoked Potential

SAFETY STANDARDS

- Meets requirements EN IEC 60601-1
- Complies with CSA and UL544
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- Classified according to MDD 93/42/EEC

PARTS

D.2102	SD32+ Amplifier
D.2100	SD32+ Headbox
D.2101	SD32+ Power Supply
D.2108	SD32+ 8-Channel DC Expansion Box
D.2115	<i>Sandman elink</i> Adapter
D.7075	SD32+ DC Interface Cable
D.7149	SD32+ Headbox Cable
D.7150-10	SD32+ Fiber Optic Cable
D.7185-AVG	Cross Over Network Cable
D.7187	<i>Sandman elink</i> Power Transfer Cable

PHYSICAL CHARACTERISTICS: AMPLIFIER

Size (L x W x H)	Weight
10.2" x 6.8" x 2.2"	3.0 lb
250 x 170 x 65 mm	1.36 kg

PHYSICAL CHARACTERISTICS: HEADBOX

Size (L x W x H)	Weight
5.2" x 3.8" x 2.5"	< 0.5 lb
126 x 96 x 25 mm	0.2 kg

PHYSICAL CHARACTERISTICS: DC EXPANSION BOX

Size (L x W x H)	Weight
4.8" x 2.8" x 2.2"	0.5 lb
120 x 70 x 55 mm	0.2 kg

Specifications subject to change without notice.

CAUTION: Federal (U.S.A.) law restricts this device to sale by or on the order of a physician.

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