

INNOVATIONS BY



grael[®] 4K

HD PSG EEG

World's First 4K High-Definition PSG : EEG - Only from Compumedics



SLEEP
DIAGNOSTICS



NEURO
DIAGNOSTICS

®grael 4K

HD PSG EEG



Tabletop Configuration

NOW IN
4K
HIGH DEFINITION

Over 26 years of experience in designing PSG and EEG amplifiers, including the highly successful Compumedics E-Series, has culminated in **Grael** - Our most technologically advanced amplifier yet, and the world's first High Definition PSG amplifier. Choose the model best suited for your needs: **Grael** for dual-platform PSG and EEG, or **Grael EEG** for dedicated EEG studies.

* Not available in Grael EEG model
** Standards as of printing

High Definition PSG/EEG

- Full PSG / EEG in High Definition
- 24-bit amplifier - A new standard for PSG
- DC-coupled inputs - See what's really happening
- Differential ECG and EMG provide unparalleled signal quality
- Respiratory impedance plethysmography
- Exceptional noise and artifact rejection
- Exceeds all AASM Digital Specifications**

One-box, One cable amplifier

- All connections are integrated
- A single IP connection to the **Grael** provides both power and data transmission
- Built-in light sensor*
- Sleep-optimised Oximeter
- Integrated RIP technology*
- New high-sensitivity snore microphone*
- Calibration-free position sensor*

Improved Efficiency

- One-touch quick disconnect
- Lanyard for easy carrying when disconnected
- Light-up touch-proof connectors allows convenient bedside impedance checking
- Create large channel sets by linking

Create Virtual Amplifiers

- Any number of Grael Amplifiers can be linked in software to create large channel counts.

INNOVATIONS BY



PSG Wall Configuration

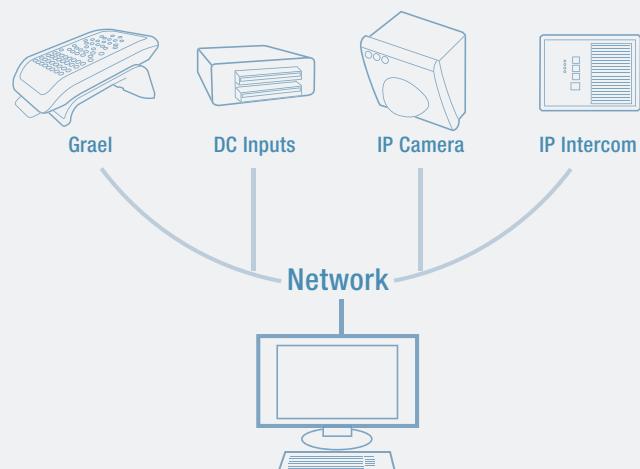


EEG Trolley Configuration

Trolley Configuration may vary depending on region.

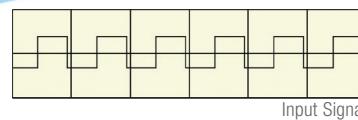
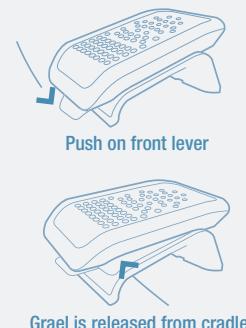
Network your lab

Use **Grael** with other network devices to simplify installation and system maintenance.

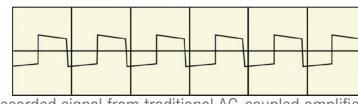


Quick Disconnect

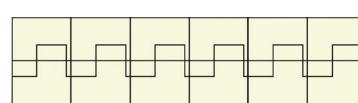
One push on the unique disconnect lever instantly releases **Grael**. With all electrode and sensor connections integrated, there's nothing else to disconnect.



Input Signal



Recorded signal from traditional AC-coupled amplifier



HD signal from Grael



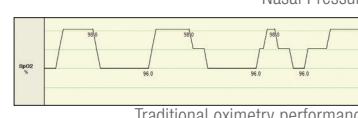
Traditional Limb EMG



HD signal from Grael



Nasal Pressure



Traditional oximetry performance



HD Grael oximetry performance

DC Coupling

Traditional PSG amplifiers use AC-coupled inputs, which result in signals decaying back to zero even if no other filters are applied. **Grael** introduces DC-coupled inputs to PSG, allowing signals to be faithfully recorded without compromise.

Differential Inputs

Traditional PSG amplifiers use a common reference for all inputs, meaning that signals such as Leg EMG are prone to significant artifact. **Grael** includes 16 true differential inputs (8 on Grael EEG), which provide the cleanest signals possible by virtually eliminating noise/artifact.

Oximeter Performance

Oximeters traditionally have a resolution of 1%, requiring filtering to display a smooth signal. **Grael's** integrated Oximeter has been specifically designed for sleep monitoring, and with a resolution of 0.1% allows accurate identification of clinically significant desaturations.

GRAEL RANGE



All of the Grael Range integrates with our World Class Profusion Sleep and EEG softwares:

Supported by * Profusion Sleep

Supported by * Profusion EEG

*From versions SLEEP4 and EEG5 upwards

Feature	Grael 4K	Grael EEG	Grael PSG	Grael LT
Full 10-20 EEG referential layout	✓	✓		✓
11 additional referential inputs	✓	✓		✓
Differential inputs with impedance test	✓	✓	✓	✓
Differential inputs without impedance test	✓	✓	✓	✓
Integrated Light Sensor	✓		✓	
Integrated Oximeter	✓	✓	✓	✓
RIP Band connections	✓		✓	✓
Snore Microphone connection	✓		✓	✓
Position sensor connection	✓		✓	✓
Pressure and airflow connections	✓		✓	✓
Event button connection	✓	✓		✓
Trigger Module	✓	✓		✓
Quik-Cap connection	✓	✓		✓
Docking Cradle with quick disconnect	✓	✓	✓	✓
Power over Ethernet (PoE)	✓	✓	✓	✓
Optional DC inputs	✓		✓	

*Standards as of printing

Our World Class Profusion software:

Use Profusion Sleep for World Class Sleep analysis:



- Score and report all AASM**recommended parameters
- Proven automatic analysis for all primary event types and sleep stages
- Easily configure and customize reports
- DC offset removal tool for Grael studies

Use Profusion EEG for effortless EEG analysis:



- Monitor waveforms continuously for LTM applications
- Summary graphics tool provides simple navigation to review and edit relevant segments of data; single step archiving of waveforms and digital video
- Real-time access to studies currently being recorded from physician review station
- Software controlled, fully synchronized digital video

A Revolution in Laboratory Management



Built on the proven Profusion neXus platform with more than 15 years of customer use and thousands of users, Profusion neXus 360 offers the full functionality of Profusion neXus and more, in a fully web-based interface.

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