



grael4K
HD psg:eeg

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

grael[®]4K

HD psg: eeg

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.



Tabletop Configuration

NOW IN
4K
HIGH DEFINITION

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.

* Not available in Grael EEG model

** Standards as of printing



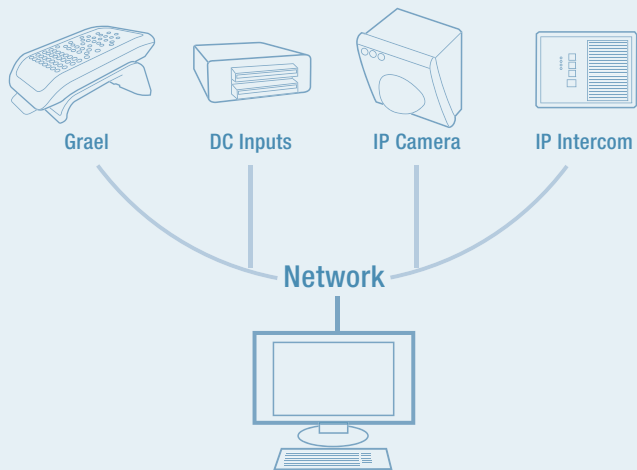
Wall Configuration



Trolley Configuration

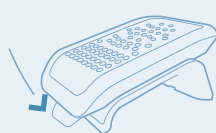
Network your lab

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

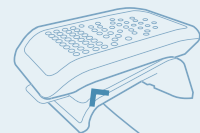


Quick Disconnect

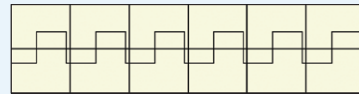
One push on the unique disconnect lever instantly releases **Grael**. With all electrode and sensor connections integrated, there's nothing else to disconnect.



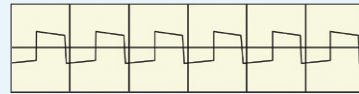
Push on front lever



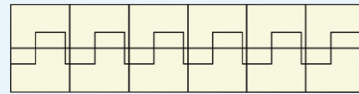
Grael is released from cradle



Input Signal



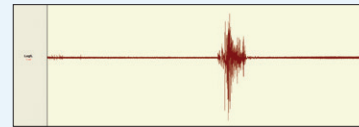
Recorded signal from traditional AC-coupled amplifier



HD signal from Grael



Traditional Limb EMG



HD signal from Grael

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

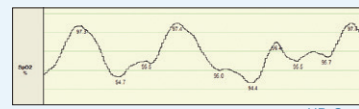
Traditional PSG amplifiers use a common reference for all inputs, meaning that signals such as Leg EMG are prone to significant artifact. **Grael** includes 16 true differential inputs (8 on Grael EEG), which provide the cleanest signals possible by virtually eliminating noise/artifact.



Nasal Pressure



Traditional oximetry performance



HD Grael oximetry performance

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 4K



® grael 4K EEG

Both Grael 4K and Grael EEG 4K integrate with our World Class Profusion Sleep and EEG softwares:

✔ Supported by * Profusion Sleep

✔ Supported by * Profusion EEG

*From versions PSG3 and EEG4 upwards

| Feature | Grael 4K | Grael EEG 4K |
|--|----------|--------------|
| Full 10-20 EEG referential layout | ✔ | ✔ |
| 11 additional referential inputs | ✔ | ✔ |
| 8 Differential inputs with impedance test | ✔ | ✔ |
| 8 Differential inputs without impedance test | ✔ | ✔ |
| Integrated Light Sensor | ✔ | |
| Integrated Oximeter | ✔ | ✔ |
| RIP Band connections | ✔ | |
| Snore Microphone connection | ✔ | |
| Position sensor connection | ✔ | |
| Pressure and airflow connections (3) | ✔ | |
| 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:

compumedics
profusionSLEEP
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:

compumedics
profusionEEG
Unlimited Potential in Routine and LTM EEG

- 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

For high level Network and Database applications:

compumedics
profusionnexus
Information Flow at the Next Logical Level

All specifications are subject to change without notice. Please contact your Compumedics representative for latest technical information, pricing and product availability. Grael, Grael EEG, Profusion PSG3, Profusion EEG4 and Profusion Nexus are trademarks of Compumedics Limited, Australia. COMPUMEDICS and the Compumedics logo are registered trademarks of Compumedics Limited, Australia.

For more information please contact:

Compumedics Limited, Australia: Headquarters
30-40 Flockhart Street
Abbotsford VIC 3067, Australia
Ph: +61 3 8420 7300
Fax: +61 3 8420 7399
Free Call: 1800 651 751

Compumedics USA, Limited:
5015 West WT Harris Blvd, Suite E
Charlotte, NC 28269
Toll Free: +1 877 717 3975
Ph: +1 704 749 3200
Fax: +1 704 749 3299

Compumedics Germany GmbH:
Global HQ for Compumedics DWL
Josef-Schüttler-Strasse 2
D-78224 Singen, Germany
Ph: +49 7731 79 76 9-0
Fax: +49 7731 79 76 9-99

Your local business partner:

COMPUMEDICS
'Defining Life's Signals'
www.compumedics.com