



O2k-Info

Mitochondrial Physiology Network 19.17: 1-2 (2014)
Updates: http://wiki.orooboros.at/index.php/MiPNet19.17_Series_G

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Oxygraph-2k Series G: innovations

Fleischmann S, Fasching M, Gradl P, Schwaninger H, Gnaiger E

OROBOROS INSTRUMENTS Corp.
high-resolution respirometry
Schöpfstr. 18, A-6020 Innsbruck, Austria
instruments@orooboros.at; www.orooboros.at



The current version of the O2k-Core (OROBOROS Oxygraph-2k Core) - the experimental system for basic HRR - is the Oxygraph-2k Series G. The O2k-Series G sets a new standard in merging high-end technology and Corporate Social Responsibility.

The added features include:

- Increased energy efficiency thanks to the new O2k-electronics design: lower running costs (24 W compared to 41 W in Series E-F and 136 W in Series D at 37 °C) following our general concept for sustainable technology. The max. power input is 120 W.
- O2k net weight is reduced to 13.45 kg in comparison to 14.2 kg in Series E-F and 21 kg in Series D.
- [DatLab 6](#) is the new software version for the Oxygraph-2k Series G.
- Ambient temperature: An internal thermistor is implemented for continuous monitoring of ambient room temperature, as an additional element of quality control. This sets a new standard in high-resolution respirometry, (i) at the level of automatic feedback-control elements in the firmware and (ii) by allowing the experimenter to evaluate any possible influence of external temperature fluctuations on signal stability.
- External temperature port (TEMP ext; Pt1000): An external thermistor can be connected, e.g. for monitoring the temperature in the aqueous medium of the O2k-Chamber. This is a relevant objective when designing respiratory measurements in response to dynamic temperature changes. The additional temperature channels can be continuously recorded by DatLab 6.
- Faster connection time to DatLab.

- USB hub 2.0 Hi-Speed (4 Port external): Four additional USB-devices can be connected to the Oxygraph-2k (e.g. USB flash drive, mouse, keyboard...), and fewer ports are necessary on your Laptop.



- Higher A-D converter (ADC) resolution: The new 24 bit ADCs provide a higher precision in measurement of O₂, Amp (fluorometric and NO measurements), and pX (potentiometric measurements). The standard gain setting for the oxygen channel is 1, which does not have to be adjusted for any standard measurements.
- Extensions via RS485: This enables experimental extensions in the future, e.g. related to current supply and data communication.

For updates and detailed information on the O2k-Core: go to [wiki.orooboros](http://wiki.orooboros.at)



>1,300 O2k-Publications

<http://wiki.orooboros.at/index.php/O2k-Publications>



O2k

www.orooboros.at/?Oxygraph

Top 10 Reasons

www.orooboros.at/?HRR-10Reasons



WorldWide MiPNet

<http://wiki.orooboros.at/index.php/MiPNet> Reference Laboratories



O2k-Protocols

<http://wiki.orooboros.at/index.php/O2k-Protocols>



MitoPedia: High-resolution terminology

www.bioblast.at/index.php/MitoPedia: [Respirometry](http://www.bioblast.at/index.php/MitoPedia)

www.bioblast.at/index.php/MitoPedia: [Fluorometry](http://www.bioblast.at/index.php/MitoPedia)