



EGA60p

Provisional announcement



Multi-sample plant physiology system

ADC BioScientific Ltd., world leaders in plant physiology instrumentation for 45 years, introduces the next generation of multi-sample analysis systems.

- + Dual CO₂/H₂O analysis
- + Up to 24 experimental samples
- + Accurate and proven technology
- + Fully programmable
- + Compact and fully integrated
- + Flow to all channels at all times
- + SD card data storage and USB output



ADC BioScientific: leaders in plant science instrumentation

For over 45 years ADC has been synonymous with high quality plant science instrumentation, in the laboratory and in the field.

Throughout this period ADC has been the world leader in developing and manufacturing multi-sample analysis systems, where a number of experimental samples may be multiplexed to, and measured by, a single CO₂ analyser. These systems have traditionally featured a highly accurate CO₂ Infra Red Gas Analyser (IRGA), such as the “legendary” ADC225 together with a separate gas multiplexing unit.

Compact and fully integrated

ADC BioScientific Ltd. now introduces the EGA60p, the next generation of multi-sample, plant gas exchange analysis systems. The EGA60p is a fully integrated system, featuring an accurate and reliable CO₂ analyser, combined with a versatile gas multiplexer in one compact unit. The EGA60p is designed for measurements during long-term, continuous experiments.

The new, fully integrated EGA60p is easy to install and significantly reduces experimental set up times compared to earlier systems.

Analysis of up to 24 samples

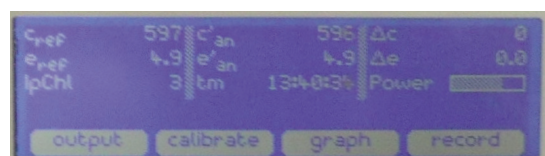
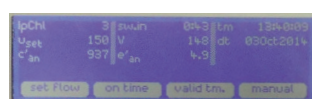
A single EGA60p system can sequentially analyse up to 24 experimental samples. The EGA60p is available with 5, 10, 15, 20 or 25 channels. One channel being reserved for a zero column.

Fully programmable

ADC has a reputation for developing the world’s easiest to use gas exchange systems. The EGA60p has been designed to be the most user-friendly, multi-sample plant physiology system ever. Complete functionality is achieved with just 5 keys driving a series of menus. No separate “bolt on” PC or laptop is required.

Sampling times of individual channels can be set together with total experimental times.

The EGA60p features a large backlit LCD display for clear programming and presentation of real-time gas exchange data.



Constant flow maintains sample integrity

Flow in each channel may be automatically programmed between 0-500ml min⁻¹.

Importantly a constant flow is maintained around the system to all sample channels, at all times. This ensures that the integrity of each sample is preserved by ensuring equilibrium inside each experimental chamber is maintained.

Integral data storage

The EGA60p provides integral data storage on interchangeable SD cards, each capable of storing many hundreds of thousands of data points.

Data may be downloaded to a PC directly from the SD cards or via a USB port.

Measurement of plant gas exchange

EGA60p is a multi-channel differential analysis system measuring each experimental chamber before and after the chamber to provide a differential gas exchange measurement for the plant material inside each chamber.

Gas exchange data is clearly presented on the backlit LED display.

Data provided by the EGA60p can subsequently be used to calculate the rate of plant CO₂ uptake (photosynthesis) or net CO₂ exchange rate within an ecosystem chamber where the chamber may contain both carbon sink and carbon source material.

The EGA60p can be configured with your own columns or chambers, whether your application is plant science or environmental ecology.

ADC: Never compromise on quality

“Quality of product and quality of service.”

From design to delivery ensuring optimal performance and reliability is of paramount importance to our team of experienced engineers. Once in the field you are supported by our network of over 40 customer support centres worldwide.

Provisional Specification*

Measurement range and technique:

CO₂: 0-2000ppm, 1ppm resolution Infrared gas analysis

H₂O: 0-75mbar, 0.1mbar resolution. Two laser trimmed, fast response water vapour sensors

Flow control: 0 to 500ml min⁻¹ on each channel

Test duration: Set by time or number of measurement cycles

Dwell time: 2 seconds to 999 minutes on each channel

Warm up time: 5 minutes @ 20°C

Display: 240 x 64 graphic LED backlit LCD

Recorded data: Removable SD cards typically store 16 million sets of data on a 1Gb card

Power supply: 230/110V 50/60Hz

Electrical outputs:

USB connection: Mini-B

RS232: 9 Pin “D” type

Analogue inputs: Seven 0-5V or 0-20mA inputs

Operating temperature range: 5°C to 45°C

Dimensions: 27 x 25 x 15cm

Weight: 7.5kg

Other gas exchange applications

The EGA60p can also be user-configured for a variety of multi-sample bioscience gas exchange applications including:

- Soil respiration (including soil toxicology protocols)
- Atmospheric monitoring
- Insect respiration
- Fruit storage
- Greenhouse monitoring

*Please note that every care is taken to ensure that this leaflet provides an accurate and true representation of the features and specifications of the EGA60p. However this is only a provisional announcement and subject to change without notification. Please contact ADC BioScientific Ltd. for confirmed specifications.



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