



"The quality of their systems is equally matched by the service that they provide. They offer a personal, friendly touch to service that is not often found by companies today. Qubit offers the absolute best service and support of any company that I have encountered in my 27 years of teaching". Dr. Janice M. Coons, Professor of Botany, Biological Sciences Department, Eastern Illinois University, Charleston, IL

# O-BOX SERIES O-BOX SRILP SOIL RESPIRATION PACKAGE



A field-portable gas exchange system for measurement of soil respiration rates. Measure rates of CO2 accumulation *in situ* using a soil chamber placed over the undisturbed soil surface (closed-flow recirculation system), or measure rates of respiration in soil samples placed in a flow-through chamber (open-flow system). The modular configuration of the system allows the use of Q-Box SR1LP package in any other applications that involves the measurement of CO2 exchange.

### Features:

- NDIR CO2 Analyzer (0 2000 ppm Range)
- Relative Humidity and Temperature Sensor
- Gas Pump (3LPM no load)
- Mass Flow Monitor (1LPM)
- Temperature Sensor
- Soil Moisture Probe
- Soil Chamber with Collar
- Flow-Through Chamber
- Gas Supply Bags
- Six Channel Data Interface
- Data Acquisition Software
- Battery Pack
- Rugged Weatherproof Case

# **Applications:**

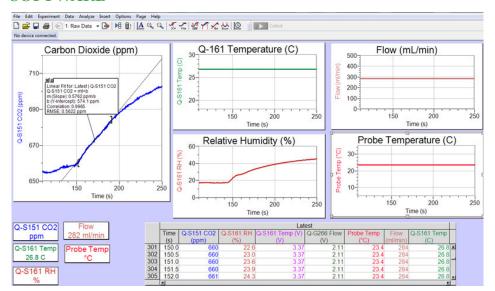
- Soil Respiration Rate
- Respiration and Fermentation Rates of Aqueous Suspensions
- Root and Whole Plant Studies
- Algal CO<sub>2</sub> Exchange
- Bioreactor Monitoring
- Atmospheric Monitoring
- Field and Lab Applications



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### **SOFTWARE**



Data from Field Soil in Situ (Closed-Flow System)

All of Qubit's Q-BOX Packages include the same data acquisition software. You do not need to learn a different program for each suite of instruments. The software is powerful, but intuitive, so that novices are collecting and manipulating data within minutes of set up. Qubit supplies set-up files for each Q-BOX configuration with default displays, experimental periods and all calculations in place. Defaults can be changed quickly and easily as required. You need to buy the software only once, no matter how many types of Q-BOX packages you purchase. Free upgrades are provided on request. *Q-Box sensors and analyzers are compatible with any data acquisition system you may already possess.* 

### **SOFTWARE FEATURES**

- 6 Data Channels
- Variable Data Acquisition Rate
- Graph, Table and Meter Displays
- Suite of Analysis Functions: (Statistics, Curve Fit, Integration etc.)
- Control Devices Using Data Input
- Feedback Control Functions
- Multi-Page Reporting
- Data Replay Function
- Simple Equation Input and Editing
- Numerous Mathematical Functions

### STANDARD Q-BOX PACKAGES

- RP1LP Low Range Respirometry
- RP2LP High Range Respirometry
- CO650 Plant CO2 Analysis
- SR1LP Soil Respirometry
- NF1LP Nitrogen Fixation
- HR1LP Human Respirometry
- AQUA Aquatic Respirometry
- BBB1LP Human Exercise Physiology
- OX1LP Dissolved O2

## **CUSTOMIZE YOUR Q-BOX**

The Q-BOX concept is all about flexibility. Do you want a system that can be used to measure insect respirometry, photosynthesis, human metabolic rate and atmospheric monitoring? Do you need to share your Q-BOX with a colleague from another discipline? Please contact us and we'll show you how the various components required for diverse studies can be configured in a common system.



Each Q-BOX component is easily removed from the Q-BOX and replaced with whatever new component you require. All of the analysers, pumps and sensors etc. can also be used as stand-alone items independent of the Q-BOX. You may use our software and interfaces for collecting data from analyzers in standalone mode.



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