



PS-9000

Portable Soil CO₂ Flux System

Unlock the potential of soil carbon monitoring with the PS-9000 and elevate your research to new heights!

Experience the power of precision with the PS-9000, a groundbreaking portable measurement system that revolutionizes the assessment of soil CO₂ flux through the dynamic chamber method. This innovative system seamlessly integrates control measurement, data storage, and processing capabilities, enabling you to effortlessly monitor changes in CO₂ concentration in the chamber. By leveraging additional measurements such as air temperature, barometric pressure, and soil temperature, the PS-9000 delivers accurate and insightful calculations of soil CO₂ flux.

Packed with user-centric features, the PS-9000 offers wireless operation via a handheld controller, presenting real-time data that empowers you to make informed decisions. Adjust settings with ease and access valuable information at your fingertips.

Key Benefits

- Internal NDIR CO₂ and H₂O detector with super performance
- Supports soil and water surface CO₂ flux survey measurement
- Optional transparent chambers and a floating buoy module for different applications
- Lightweight and lower power requirement
- The system can be wirelessly operated via a Cell Phone that displays the instrument's measured data in real time and allows on-site modification of settings

Specifications

PS-9000 Control Unit

Measurement principle	Non-Dispersive Infrared Absorption Method(NDIR)
Measuring range	CO ₂ : 0-10,000 ppm H ₂ O : 0-60,000 ppm
Accuracy	CO ₂ : < 1.5% of the data reading H ₂ O : < 5%
Repeatability / Precision	CO ₂ : < 1 ppm @ 400 ppm H ₂ O : < 10 ppm
Operating temperature	0 ~ 45 °C
Power requirements	< 30 W
Storage medium	SD card
Communication interface	WIFI, RS-232, SDI-12
Synchronous pump	12 V, < 0.5 A
Flow rate	<2.5 l/min
Battery type	14.4 v- 6.90 AH lithium battery
Battery life	> 8 hours (two batteries)
Dimensions	37 x 30 x 16 cm
Weight	5.9 kg (including two batteries)

SC-15 Soil Survey Chamber

Measuring Area	276.27 cm ²
Volume of the chamber	3136.13 cm ³
Cable Length	2 m
Power requirements	< 9 W
Dimensions	25.5 x 25.5 x 40.6 cm
Weight	4.55 kg

Soil temperature and humidity sensor

Humidity parameters Range

Mineral soil calibration	0 - 70%
Soilless media calibration	0 - 100%
Apparent dielectric permittivity	1 (air) - 80 (water)

Accuracy

Generic calibration	± 3% (typical in mineral soils that have solution EC < 8 dS/m)
Medium-specific calibration	± 1%-2% in any porous medium
Apparent dielectric permittivity (ε _a)	1-40 (soil range), ± 1ε _a (unitless) 40-80, 15% of measurement

Manual Transparent Chamber

Measuring area	276.27 cm ²
Measuring volume	2973.11 cm ³
Work environment	-20-60°C
Cable length	2 m
Product size	27.4 x 26 x 21.3 cm
Product weight	2.4 kg

Water-floating Buoy

Measuring area	803.84 cm ²
Work environment	-20 - 60°C
Cable length	5 m
Product size	32 x 72 x 20 cm
Product weight	10.15 kg



SC-13 Manual Transparent Chamber



Water-floating Buoy

Temperature parameters

Temperature Range	-40°C-+60°C
Temperature Accuracy	-40°C-0°C: ± 1°C 0°C-60°C : ± 0.5°C

Ordering Information

PS-9000: 1 analyzer console (including CO₂ and H₂O analyzers); 1 backpack; 1 soil temperature and humidity sensor; 2 batteries; 2 chargers; 1 handheld controller

SC-15: Soil Survey Chamber

Support: Provide technical support and service for life

Manufacturer: LICA, China