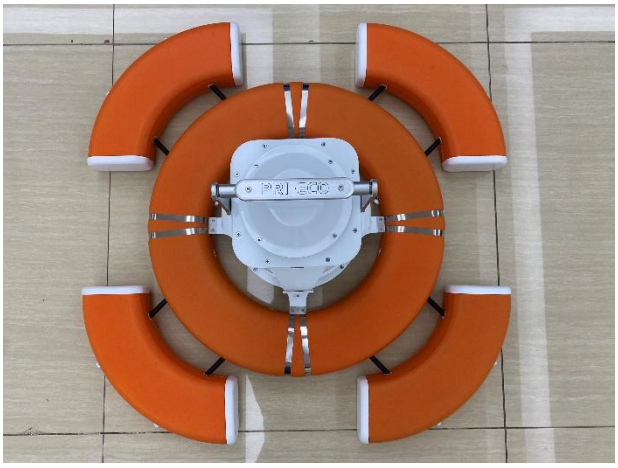
# PRI-8601 Plus Smart Chamber for Aquatic Gas Flux



The PRI-8601 Plus smart chamber is a versatile, cylindrical system designed for both water surface gas flux measurements and traditional soil respiration studies. It features a built-in high-speed capacitive water-level sensor that detects rising water and immediately activates an electromagnetic valve to switch the connected analyzer to atmospheric measurement mode, while using exhaust gas to blow back and clear the inlet line—providing complete protection against water ingress.The chamber communicates wirelessly via Bluetooth with one or more analyzers and operates autonomously thanks to its high-capacity battery. It handles chamber movement, monitors water/air temperature, atmospheric pressure, and GPS/BDS position, while collecting data from external gas analyzers. It can also connect via Wi-Fi to a tablet or smartphone for real-time data display and instant gas flux calculations.Key design elements include a patented pressure vent, a progressive air-mixing collection system, and precisely controlled drive speed to minimize pressure fluctuations, boundary layer disturbances, and other artifacts that could affect flux accuracy. Its unique waterproof protection mechanism makes it especially suitable for high-risk water-gas interface research in marine, lake, reservoir, and wetland environments, as well as standard soil flux studies.

## Key Features

- Equipped with a built-in high-speed capacitive water-level sensor to protect the analyzers
- Features a multi-sensor fusion architecture, compatible with analyzers from multiple brands
- Built-in high-density lithium battery allows the chamber to operate autonomously
- Wi-Fi connection to tablets or smartphones for real-time flux calculation
- Patented dynamic pressure vent and progressive sampling improve measurement accuracy
- A scientifically optimized chamber driving speed reduces boundary layer disturbance

## Specification

| | | | |
|---|---|---|---|
| Pressure Vent | Patented | Covered Area by Chamber | 314 $cm^2$ |
| Soil Temp. Measurement Range | -40 ~ +85 °C | Chamber Volume | 3718 $cm^3$ |
| Soil Temp. Precision | ± 0.2 °C | Size of the Chamber | 220 mm (D) x 120 mm (H) |
| Soil Water Measurement Range | 0 ~ 100% | Whole Size of the Chamber | 250 mm (D) x 375 mm (H) |
| Soil Water Accuracy | ± 3% | Memory | 16 GB total non-volatile |
| Battery | 12V, 9.6 Ah | Cable length | 1.5m Standard |
| Wi-Fi | 2.4 GHz | Weight | 4.5 kg |
| BDS Accuracy | < 1m CEP | Operating Temperature Range | –20 to 50 °C |

*Specifications subject to change without notice*

**Manufacturer: PRI-ECO, CHINA**

PRI-ECO COMPANY LIMITED www.pri-eco.com info@pri-eco.com 0086-10-51651246