

28 / Continuous Emission Monitoring System for Greenhouse Gases

【PRODUCT DESCRIPTION】

The TK-1000 continuous greenhouse gas emission monitoring system is developed for stationary emission sources, providing reliable data support for carbon peaking and carbon neutrality.

It directly monitors CO2, CH4, N2O concentration, flue gas flow rate and humidity to calculate accurate gas emissions. With modular design, it is easy to operate and owns prominent advantages.

The system realizes real-time, accurate and automatic carbon emission accounting. Compared with traditional material balance calculation, it adopts real-time monitoring data to improve the accuracy and timeliness of carbon emission accounting results.



【PRODUCT FEATURES】

- Flexible configuration: available as a complete set, or compatible with existing CEMS systems by adding CO2, CH4 ,N2O analysis modules.
- All components have passed long-term operational tests with stable and durable performance.
- Communication protocol complies with HJ/T 212-2017 transmission standard.
- High resolution, easy maintenance.
- Modular design, intelligent operation, long service life and low maintenance workload.

【TECHNICAL PARAMETERS】

Measurement Parameter	Measurement Method	Measuring Range	Linearity Error/Accuracy
Carbon Dioxide (CO ₂)	Non-Dispersive Infrared (NDIR) Method	0-30%	≤±2.0% F.S.
Methane (CH ₄)	Tunable Diode Laser Absorption Spectroscopy (TDLAS)	0-500ppm	≤±2.0% F.S.
Nitrous Oxide (N ₂ O)	Infrared Wavelength Filtering Technology (GFC)	0-50ppm	≤±2.0% F.S.
Oxygen (O ₂)	Zirconia / Electrochemical Method	0~25%	≤±2.0% F.S.
Temperature	Platinum Resistance Method	0~350℃	≤±3℃
Pressure	Silicon Piezoresistive Method	-4k~+4kPa	≤±2.0% F.S.
Flow Velocity	Pitot Tube Method / Ultrasonic Method	4~40m/s	≤±2.0%
Humidity	Resistance-Capacitance Measurement Method	40Vol%	≤±15%