

Contribution to the Realization of Carbon Neutrality through “Measurement” Technology

– Monitoring of N₂O, CH₄, CO₂ –

In the industrial sector, the reduction of environment impact is focused not only on the reduction of CO₂, but also, on the reduction of other Greenhouse gases such as N₂O and CH₄, which GWP* is 298 times and 25 times greater than that of CO₂.

N₂O : Nitrous Oxide CH₄ : Methane GWP : Global Warming Potential

New Lineup for Greenhouse Gas (GHG) Monitoring

For Speedy Measurement at Various Locations

NEW Simultaneous measurement of three GHGs by a single portable unit

Portable Gas Analyzer PG-344CN

- Compact, lightweight and portable
- Available for on-site use and lab
- Simultaneous measurement of four components (N₂O, CH₄, CO₂, O₂)



Video about
PG-300 Series



Sampling for
measurement
support (Option)



Electronic Cooler Unit PS-300

When the sample gas includes moisture exceeding 40°C saturation, or when conducting continuous measurement (for 5 days or less), an electronic cooler is to be installed before the analyzer unit. The electronic cooler unit can also accommodate SO₂ measurement by 3-step cooldown.

For Continuous On-site Monitoring

Highly accurate real-time monitoring of GHGs 24/7 even in harsh environment

Stack-Gas Analyzer ENDA-5000 Series

- Low downtime of analyzer
- Simultaneous measurement of up to five components including GHGs (NO_x, SO₂, CO, CO₂, O₂, N₂O, CH₄)
- Minimum range : 0-50 ppm
Maximum range: 0-25vol%



For Measurement at Lab

Quick set up of sampling system for R&D oriented GHGs monitoring

Multi-Component Gas Analyzer VA-5000 Series

- Wide measurement range
- Measurement of up to four components including GHGs (CO, CO₂, CH₄, N₂O, NO, SO₂, NH₃, NO_x, O₂)
- Minimum range : 0-20ppm
Maximum range: 0-100vol%



*Available measurement ranges and combination of components to be consulted. Customization on request.

Applications



➤ Sewage Treatment Facility

- Sludge incineration: High-temperature cyclone, exhaust gas
- Wastewater treatment: Raw water tank, sludge storage tank



➤ Incineration Facilities at Cleaning Plants, Industrial Waste Treatment Plants

- Fluidized bed incineration



➤ Chemical Plants

- Nitric acid production with ammonia
- Adipic acid production



➤ R&D Departments

- Catalyst, combustion testing and agriculture
- Various research applications

Portable Gas Analyzer PG-344CN Specifications

Model	PG-344CN	
Components	N ₂ O / CH ₄ / CO ₂ / O ₂	
Measurement Principle	N ₂ O-CH ₄ Cross-Modulation Non-Dispersive Infrared Absorption (NDIR) CO ₂ Non-Dispersive Infrared Absorption (NDIR) O ₂ Paramagnetic Method (Dumbbell type), Zirconia Method, or Galvanic Method	
Measurement Range	N ₂ O	C range: 0-100/200/500/1000 ppm D range: 0-500/1000/2000/5000 ppm
	CH ₄	C range: 0-200/500/1000/2000 ppm D range: 0-500/1000/2000/5000 ppm
	CO ₂	0-5/10/20 vol%
	O ₂	0-5/10/25 vol% (Zirconia Method, or Galvanic Method) 0-10/25 vol% (Paramagnetic Method (Dumbbell type))
Repeatability	±1.0% full scale	
Linearity	±2.0% full scale	
Drift	±1.0% full scale per day	
Response Time (T _d +T ₉₀)	45 sec. or less (From sample inlet, with electrical system response time set at 10 sec.) Moving average can be switched between 10 and 30 seconds.	
Sample Gas Flow Rate	Approx. 0.5 L/min	
Display	Measurement (3-4 digits display), range, flow rate, etc.	
Output	DC 4-20 mA (non-insulated) or DC 0-1 V (non-insulated) [Optional] / Ethernet	
Warm-up Time	With 30 min. warm-up	
Data Saving	SD™ / SDHC™ memory card	
Installation Environment	Ambient temperature: 0 to 40°C (32°F to 104°F), Relative humidity: Maximum 80% or less Upper limit of N ₂ O concentration: Less than 1 ppm, Upper limit of CH ₄ concentration: Less than 2 ppm Please exhaust sampling gas sufficiently far from the equipment to avoid increase the concentration of N ₂ O and CH ₄ in the operating environment.	
Power Supply, Power Consumption	AC 100 V - 240 V, 50/60 Hz Approx. 160 VA in a steady state, maximum 220 VA	
Dimensions, Weight	300(W) x 520(D) x 265(H) mm, Approx. 15 kg	
Environmental Rating	IP42 (Optionally available)	
Sample Gas Conditions	Temperature: Ambient temperature, Moisture: Below the ambient temperature saturation Dust: Less than 0.1 g/Nm ³ , Pressure: ±0.98 kPa No corrosive gases, gases that react with the measured gas to be present.	

SD and SDHC is a trademark of SD-3C, LLC.

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