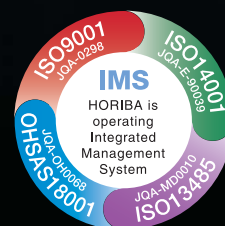


Laboratory-precise analyses, anywhere.



Measurement So Easy It's Almost Instinctive

Laboratory-level precision in a portable unit for real-world measurements in the field.

The New Possibilities of Gas Analysis Begin with "Precision Mobility"

For situations when you can only take measurements in the field, but you want the same precision that you get in the laboratory: Horiba presents the PG-300 Portable Gas Analyzer. The PG-300 offers the same accuracy and reliability of laboratory measurements in a portable unit that can measure five crucial components in the field. It offers a faster response time than existing models and yet is 20% lighter. Warm-up time has also been cut in half to facilitate mobile measurement. The PG-300 also has a touch screen for easy operation and a new design that protects the unit from shocks and vibrations — features that enhance its usefulness in the field. The PG-300 is the analyzer of the future — but it's here today, ready to meet the need for increasingly precise measurements with the mobility of on-site measurement capability.

PORTABLE GAS ANALYZER

PG-300

NO_x—SO₂—CO—CO₂—O₂—CH₄



Functions

Advanced measurement needs met with advanced functions.

●Capable of measuring methane (CH₄) ●Shorter warm-up time ●Timer function ●Ethernet compatible ●Capable of remote operation ●Compatible worldwide

The PG-300 achieves measurement performance equal to laboratory equipment in a highly portable package. The addition of CH₄ analyzer greatly expands applicability. With only half the warm-up time over the previous generation PG, operational performance has dramatically increased. A new timer function has been added for saving preparation time and quick start. To enable measurements worldwide, the PG-300 carries certifications which follow measurement laws in various countries.

Capable of measuring methane (CH₄) for expanded options

New methane (CH₄) measurement capability
Improving on previous models, the new PG-300 is equipped with a methane (CH₄) analyzer that is ideally suited for many current and emerging applications such as biomass combustion.



CH ₄	283
CH ₄ 平均	283

Ethernet communication facilitates data management*1

Standard Ethernet interface for connection to LAN environments, enabling real-time data import.

Allows remote operation over a network*1

Once the network connection has been set up on PG-300, it can be controlled to upload data and check the status while you are staying at the office or the laboratory even PG-300 is left far in the measurement location.



*1 Requires separate software.

Warm-up time has been cut in half, greatly reducing the instrument's ready-to-measure time

Previous systems required an hour of warm-up time. This has been reduced to 30 seconds on the PG-300, greatly reducing the time required for measurement preparation.

Timer function enables automatic instrument start and sleep modes

For example, setting the PG-300's automatic start time 30 minutes ahead of when measurements are needed eliminates your need to wait for the instrument to warm up; it will be ready when you are. There is also a sleep mode that reduces power use when the unit is idle.



Reduced response time for SO₂ analyzer

The response time of the SO₂ analyzer is faster than on previous models, increasing the overall measurement performance.

Worldwide compatibility enables use anywhere in the world

The PG-300 is ready to be certified in various countries and that enhances PG-300 performance worldwide.

Certificates on pending:

Measurement Law (Japan), Measurement Law (China),
Measurement Law (South Korea),
TÜV (EU), MCERT (UK), GOST (Russia)

Field × Lab

Rugged Lightweight Design

To provide complete support for measurements in the field, the PG-300 body has been made up to 20% lighter than previous models. It is also equipped with side guards to cushion it in the event of unexpected impacts during transport. Designed in this way for easy and safe transport, the PG-300 provides full support for measurements in the field.

●Lighter than existing models to make transport easy.



Easy Operation

Operation is simple and intuitive, making it easy to perform measurements in the laboratory or the field.

●SD memory card slot ●Color LCD touch screen ●Screen capture function ●On screen guidance ●Color trend graph

Simple, intuitive operation makes on-site measurement easy. The PG-300 has a highly visible and easy to operate LCD color touch screen. Data is readily saved on an SD memory card for easy transfer to a PC.

The unit is equipped with a screen capture function as a standard feature, enabling necessary data to be saved on the spot. There is also an intuitive on screen guidance function, when the operator's manual is not at hand.

Equipped with an SD memory card slot to enable data to be saved immediately

SD memory card slot accessed from the front of the instrument enables necessary data to be saved on the spot in the universal CSV format.

The SD card slot is located on the front of the unit for easy access.



Screen capture function enables data to be saved immediately as a bitmap image onto the SD memory card.

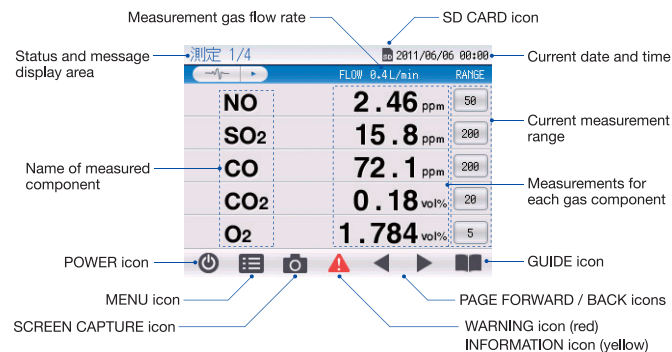
No paper or pen required - simply touch the SCREEN CAPTURE icon and a screen shot is stored in memory.

On screen guidance function allows you to confirm review operating procedures instantly

The simple guidance function provides assistance when you forget how to perform an operation. You can review regular operational procedures or important points right on the screen.

LCD touch screen improves ease of operation

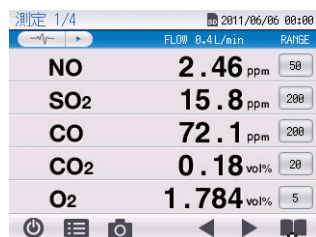
All operations, including calibration, measurement and saving on-screen data, can be performed on the touch screen. The high visibility color display makes it easy to check the status.



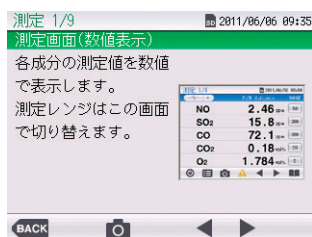
Easy real time analysis using the color trend graph

There is a convenient color trend graph function, enabling gas component trends as a function of time to be confirmed at a glance.

[Sample display screens]

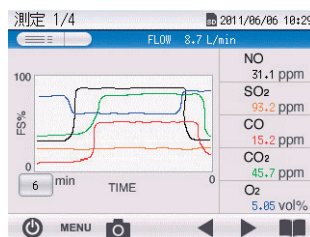


When you press the GUIDE button...



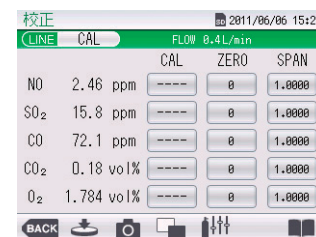
... guidance appropriate for the currently displayed screen appears.

[Color trend graph]



Note: Calibration requires separately purchased calibration gas and pressure regulator.

[Calibration screen]



●Unit status is clearly displayed on the LEDs on the front of the unit.



●Easy-to-operate unit yields precision analysis results.



●The touch screen on the front makes operation easy.

Analyzer Specifications

Type of Analyzers	2 component Analyzer		3 component Analyzer			4 component Analyzer	5 component Analyzer	2 component Analyzer	4 component Analyzer
Model	PG-320	PG-325	PG-330	PG-335	PG-337	PG-340	PG-350	PG-324	PG-344
Components Measured	CO/CO ₂	NOx/O ₂	CO/CO ₂ /O ₂	NOx/CO/O ₂	NOx/SO ₂ /O ₂	NOx/CO/CO ₂ /O ₂	NOx/SO ₂ /CO/CO ₂ /O ₂	CH ₄ /CO ₂	CH ₄ /CO/CO ₂ /O ₂
Analysis Principle	NOx : Chemiluminescence Detection method (CLD) SO ₂ , CO, CO ₂ : Non-Dispersive Infrared (NDIR) Absorption O ₂ : Galvanic Cell								
Ranges	NOx : 0-25/50/100/250/500/1000/2500 ppm SO ₂ : 0-200/500/1000/3000 ppm CO : 0-200/500/1000/2000/5000 ppm CO ₂ : 0-10/20/30 vol% O ₂ : 0-5/10/25 vol%							CH ₄ : 0-2000/5000 ppm CO : 0-2000/5000 ppm CO ₂ : 0-5/10/20 vol% O ₂ : 0-5/10/25 vol%	
Repeatability	±0.5% of Full scale (NOx : ≥ 100 ppm range / CO : ≥ 1000 ppm range) ±1.0% of Full scale (Except above)							±1.0% of Full scale	
Linearity	±2.0% of Full scale								
Drift	±1.0% of Full scale / day (For SO ₂ analyzer only : ±2.0% of Full scale / day							±1.0% of Full scale / day	
Response Time (T ₉₀)	Analyzers except SO ₂ analyzer : 45 sec. or less (From sample inlet, response time setting of electrical system : 10 sec.) SO ₂ analyzer : 180 sec. or less (From sample inlet, response time setting of electrical system : 10 sec.) Moving average selectable (10 or 30 sec.)							45 sec. or less (From sample inlet, response time setting of electrical system : 10 sec.) Moving average selectable (10 or 30 sec.)	
Sample Gas Flow Rate	Approx. 0.5 L/min.								
Display	Measurement (3 or 4 digit display), range, flow rate, etc.								
Output	DC 4-20 mA (non-insulated) / Ethernet								
Warm-up Time	With 30 min. warm-up, ±2.0% of Full scale / 2 hours								
Data Saving	SD memory card								
Ambient Temperature	0-40°C								
Ambient Humidity	85% R.H. or less								
Power	AC 100 V - 120 V, 220 V - 240 V								
Power Consumption	Approx. 220 VA in a steady state								
Dimensions	260 (W) x 510 (D) x 260 (H) mm (Without side guard)					300 (W) x 520 (D) x 265 (H) mm (With side guard)			
Weight	Approx. 14 kg (Without side guard)					Approx. 15 kg (With side guard)			
Sample Gas Conditions	Temperature : Less than 40°C, H ₂ O Content : Standard or less at ambient temperature, Dust : 0.1 g/m ³ or less, Pressure : ±0.98 kPa								

• Zirconic O₂ analyzer is available. Please consult Horiba for the details.

Standard Accessories

Part Name	Specifications	Quantity
Filter element	For reference purposes only*	24
Signal cable	For analog output (2 m) with connector	1
Power cord	2.5 m	1
Tube	φ6/φ4PTFE tube 0.12 m (for mist catcher short)	1
Tube	φ6/φ4PTFE tube 5 m (for sample)	1
Tube	φ9/φ5 Imron tube 5 m (for exhaust)	1
Tube	φ9/φ5 Imron tube 1 m (for drain discharge)	1
Coupler	φ6 straight (for sample tube)	1
Cover	Dust cover (for storage)	1
SD memory card	512 MB	1

• Separate tubing and coupler are required if a pretreatment unit is added.

* Differs depending on model.

Replacement parts

Replacement part intervals assume 8 hours of operation per day. Replacement interval may be more frequent depending on measurement gas conditions and use conditions.

[Consumable Items]

Name	Replace Every (general guideline)	Notes
Mist catcher	3 months	MC-025
Scrubber	3 months	For reference purposes only*
Air filter element	2 weeks	For reference purposes only*

* Differs depending on model

[Replacement Parts]

Name	Replace Every (general guideline)	Notes
Pump	1 year	Replace when broken
NOx converter catalyst	1 year	For NOx analyzer*
Zero gas refining unit catalyst	1 year	*
Ozone generator	1 year	For NOx analyzer*
Ozone decomposition unit	1 year	For NOx analyzer*
CR2032 battery	5 years	For clock backup
Galvanic O ₂ cell	1 year	Replace when broken*

* Differs depending on model

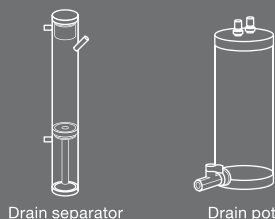
Options

Additional optional components expand the PG-300 portable analyzer capabilities.

■ Drain separator unit

■ Drain pot unit

When the gas sample includes moisture ranging from ambient temperature saturation to 40 °C saturation, a Drain Separator and Drain Pot are installed at the stage before the analyzer unit.



Drain separator

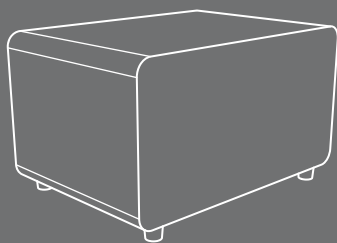
Drain pot

■ Drain separator unit / Drain pot unit specifications

Model	DS-300 (drain separator)	DP-200 (drain pot)
Temperature	0 - 40 °C	
Sample conditions (at feed port)	Moisture	Ambient temperature saturation ~ 40 °C saturation
	Dust	0.1 g/m ³ or less
	Pressure	±0.98 kPa ±4.9 kPa

■ Electronic cooler unit

When the gas sample includes moisture exceeding 40 °C saturation, or when conducting continuous measurement (for five days or less), a thermoelectric cooler is installed at the stage before the analyzer unit. The electronic cooler unit can also accommodate low-temperature SO₂ measurements.



■ Electronic Cooler Unit Specifications

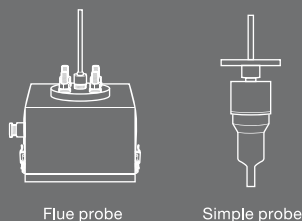
Model	PS-300
Material of sections contacting gas	SUS, PVC, PTFE, FKM, PVDF
Sampling flow rate	Approximately 2 ~ 3 L/min
Dehumidifying capacity	15 °C
Ambient temperature	0 ~ 40 °C
Ambient humidity	85% or less
Power	AC100 V~240 V
External dimensions	260(W) x 375(D) x 223 (H) mm
Mass	Approx. 10 kg
Sample conditions	Temperature: Ambient temperature, Dust: 0.1 g/m ³ or less, Moisture: 20 vol% or less, Pressure: ±4.9 kPa

[Cl₂ scrubber] (optional)

The Cl₂ scrubber can be built into the electronic cooling unit as an option. It is used to prevent corrosion of the cells, tubes and other internal components when the gas analyzer is operated at waste incineration facilities or in other situations where the gas sample includes Cl₂.

■ Primary side filter probe

Either of two types may be selected depending on use.



Flue probe

Simple probe

■ Primary side filter probe specifications

Model	Simple probe	SE3 (flue probe)
Probe length (standard)	10 cm	1 m
Temperature	0 - 50 °C*	0 - 120 °C*
Sample conditions (at feed port)	Moisture	40 vol% or less
	Dust	0.1 g/m ³ or less
	Pressure	±2.94 kPa


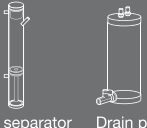
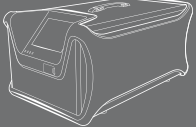

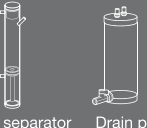

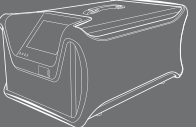



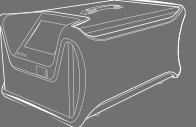

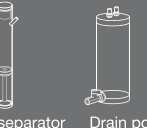
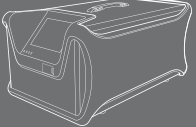

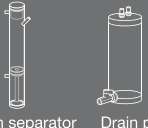
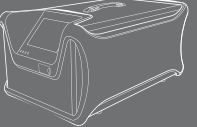

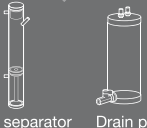
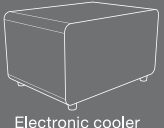
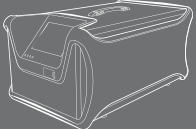

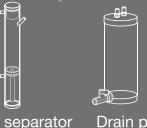

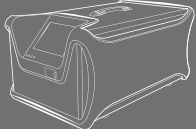



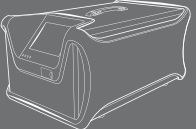
*At flange inlet

Note:

- Please contact Horiba if the analyzer will be used in environments in which the temperature exceeds 120 °C.
- Please contact Horiba in case of use under the environmental that the pressure condition is other than ±2.94 kPa.

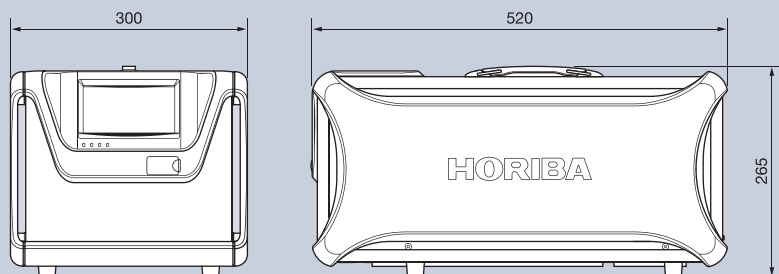
Please select the ideal combination according to your needs.

Sample Preprocessing Unit (optional) Uses

Applications	Boiler gas turbines	Stack gas	Waste incineration	Combustion gas appliances	Steelmaking
Intermittent Measurement (8 hours or less)	 Simple probe  Drain separator Drain pot  PG-300	 Simple probe  Drain separator Drain pot  Electronic cooler  PG-300	 Simple probe  Drain pot  Electronic cooler  PG-300	 Simple probe  Drain separator Drain pot  PG-300	 Simple probe  Drain separator Drain pot  PG-300
Continuous Measurement (5 days or less)	 Flue probe  Drain separator Drain pot  Electronic cooler  PG-300	 Flue probe  Drain separator Drain pot  Electronic cooler  PG-300	 Flue probe  Drain pot  Electronic cooler  PG-300	<p>Note: Consult Horiba regarding probe material and other matters relating to applications. * For measurements exceeding 5 days, please contact Horiba.</p>	

■ External Dimensions (mm)

● PG-300 Series Analyzer Unit



HORIBA continues contributing to the preservation of the global environment through analysis and measuring technology.



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