

Stack Gas Analyzer GI-700 Series



Increase your CEMS Capabilities with a HORIBA Multi-gas Analyzer

Experience HORIBA, the Global Single Source Solutions Provider with over 50 years of technological advancements and unparalleled reliability, dependability and operability.

The GI-700 stack gas analyzer is designed to continuously measure the concentrations of nitrogen oxides (NO_x), sulfur dioxide (SO₂), carbon monoxide (CO), carbon dioxide (CO₂), oxygen (O₂) and ammonia (NH₃) in stack flue gas streams.

Stack Gas Analyzer GI-700 Series



Features

1 Ultimate Dependability

Proven cross flow modulation technique
Continuous base line validation

2 Ultimate Low cost ownership

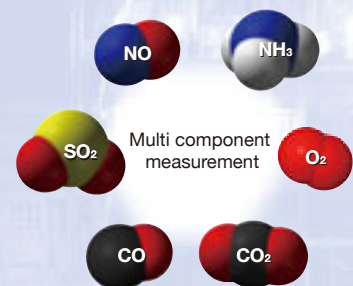
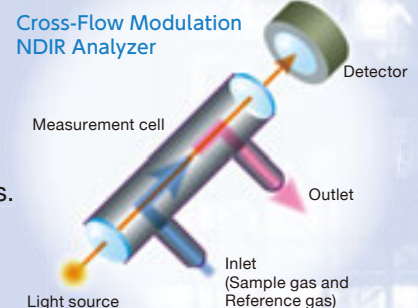
Up to 6 gases can be measured using a single analyzer with multiple detectors.
Works with a simple sampling unit having less tubing, fewer power cables.
Simplified wiring translates into less time required for installation.
Minimum function for the operation. Any additional functions can be added from controlling PLC.

3 Ultimate Sensitivity

5 ppm High-Precision measurement (NO_x, SO₂, and CO) is available.

[Others]

- An external converter provides for separate measurements of NO and NO₂.
- All component modules can be easily installed with in a single 19 inch case. The compact design saves space, facilitates maintenance and requires less wiring and tubing during installation.
- Power consumption is reduced by approximately 50% as compared to systems using individual analyzers (NH₃ analyzer).



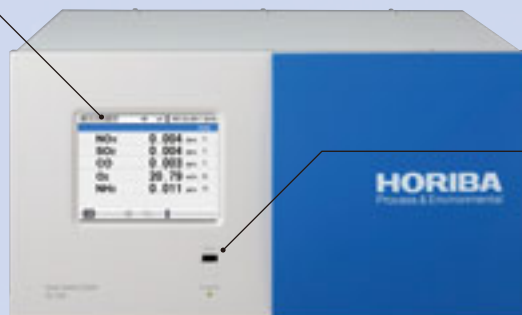
User Friendly

LCD color touch panel

All operations, including calibration and measurement can be performed on the touch screen. The high visibility 5.7 inch color display makes it easy to check the status.

MEASUREMENT	Value	Unit	Scale
NOx	0.004	ppm	1
SO ₂	0.004	ppm	1
CO	0.003	ppm	1
O ₂	20.79	vol%	20
NH ₃	0.011	ppm	10

CL. STATON 1/2	CL. VAL	AVERAGE	SPRNG	SCALE
NOx	0.002	ppm	1	4.300
SO ₂	1.002	ppm	1	4.300
CO	0.003	ppm	1	4.300
O ₂	20.79	vol%	20	20.79
NH ₃	0.002	ppm	1	4.300

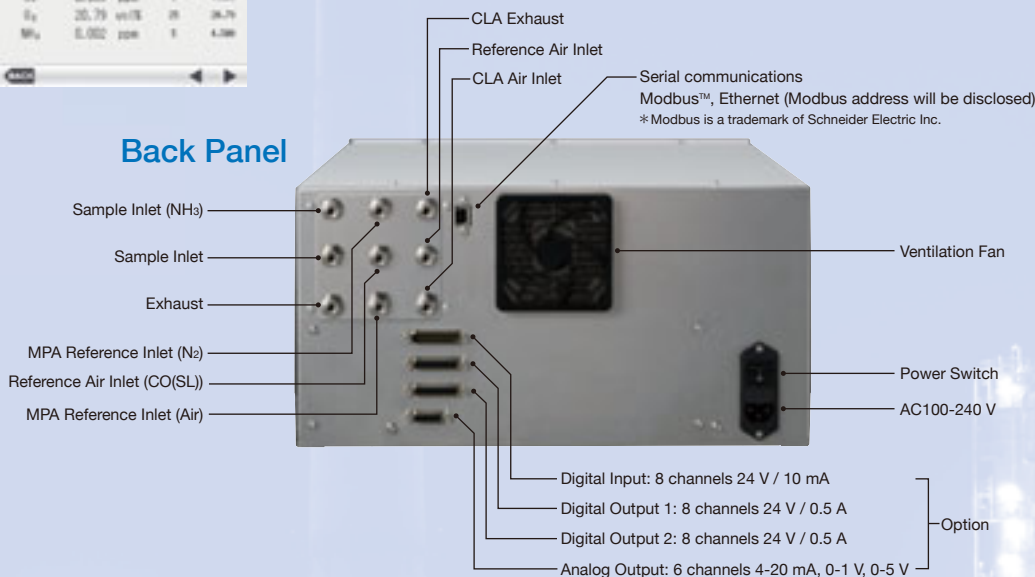


USB Port

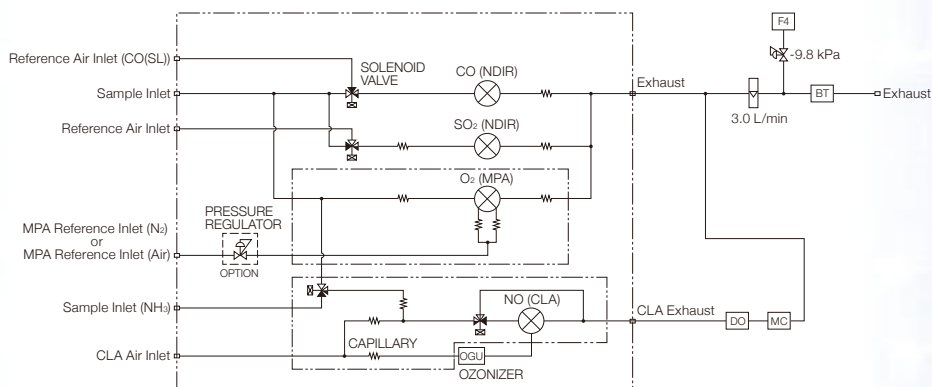
Storing data on USB flash memories enables easy data management on PCs. (Measured value, Alarm, Calibration history)
* HORIBA recommended USB is available.



Back Panel



Flow schematic (NO_x, SO₂, O₂, NH₃, CO)



Various Applications



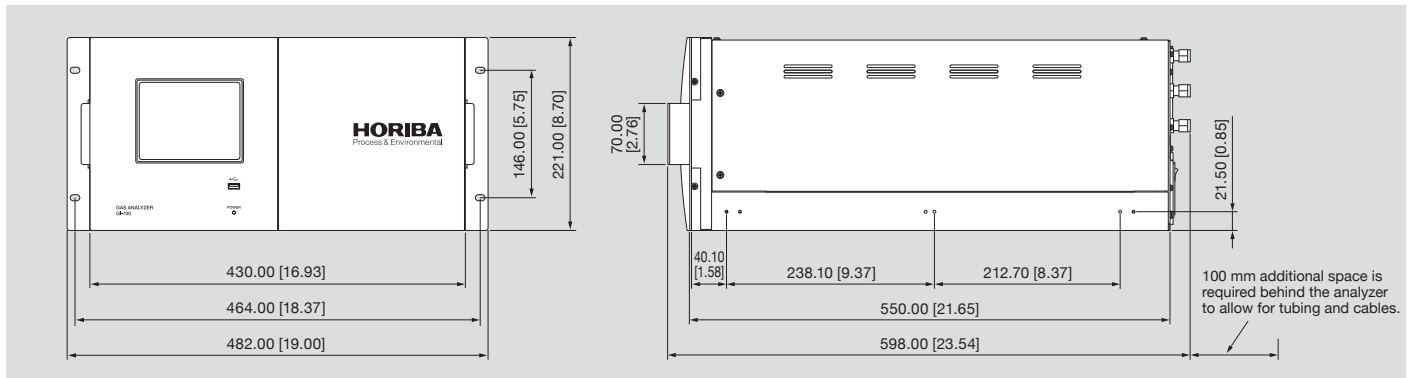
Applications include:
Stack emission monitor, SCR control,
Desulfurization control, Green house gas
monitor, Boiler emission, Gas separation,
Coal fired gas, Natural fired gas etc...

Specifications

Model		GI-700													
Component		NOx		SO ₂		CO				CO ₂		O ₂		NH ₃ ²	
Measurement methods		CLA (High sensitivity)	NDIR (Standard)	NDUV (High sensitivity)	NDIR (Standard)	NDIR (High sensitivity 1)		NDIR (High sensitivity 2)	NDIR (Standard)	NDIR (High concentration)	NDIR (Standard)	NDIR (High concentration)	MPA (N ₂ carrier)	MPA (Air carrier)	CLA (differential method)
Range	Standard	10-5000 ppm	200-5000 ppm	10-1000 ppm	200-5000 ppm	—	—	50-500 ppm	200-5000 ppm	—	—	5-25 vol%	—	—	—
	Optional	5 ppm	—	5 ppm	—	5 ppm	10-100 ppm	—	100 ppm	1-5 vol%	—	10-50 vol%	—	—	—
Range Ratio	Standard	1:10	1:10	1:10	1:10	—	—	1:10	1:10	—	—	1:5	—	1:5	1:10
	Optional	1:20	1:20	1:20	1:20	1:1	1:10	—	1:20 ¹	1:5	—	1:5	—	—	—
Indicated error (Linearity)		± 1.0% of full-scale value for each component and range (Standard range ratio) ± 2.0% of full-scale value for each component and range (Optional range ratio)													
Zero drift		± 1.0%/week of full scale (standard range) (if the ambient temperature change is ≤ 5°C) ± 2.0%/week of full scale (optional range and Air carrier specification O ₂ analyzer) (if the ambient temperature change is ≤ 5°C)													
Span drift		± 2.0%/week of full scale (if the ambient temperature change is ≤ 5°C)													
Response time		T ₉₀ =45 s from the analyzer inlet													
Interference		±2.0% of full scale													
Environment Condition		Temperature: 0° to 40°C (No direct sun light or no radiation heat) Humidity: ≤ 90%													
Measuring Gas Condition		Temperature: Ambient temperature, NO: Up to 5000 ppm, NO ₂ : None, SO ₂ : Up to 5000 ppm, SO ₃ : None, CO: Up to 5000 ppm, CO ₂ : 3 vol% to 15 vol%, O ₂ : 0.2 vol% to 15 vol%, HCl: None, H ₂ O: Saturated at 5°C, Dust: None													
Sample inlet tube		Polytetrafluoroethylene tube (6 mm O.D./4 mm I.D.)													
Sample gas pressure		Atmospheric pressure ± 4 in. W.C.													
Pressure control		Not including (Vacuum regulator (-9.8 kPa))													
Calibration gas		Zero gas: Nitrogen Span gas: Gas to be measured													
Carrier gas for (oxygen analyzer)		Nitrogen (for N ₂ carrier specification), Air (for air carrier specification)													
Air for ozone generation		Dry air (saturated at ≤ -30°C)													
Power supply		100 - 240 VAC (Depends on components)													
Power frequency		50/ 60 Hz for common use													
Power consumption		240 VA													
Materials in contact with sample gas		PTFE, Nylon, PP, FKM, SS304, SS316													

*1: A range ratio of 1: 40 is also possible for special applications.
*2: A range ratio of CLA NH₃ and CLA NO_x should be 1: 5 or less.

Outline Drawings (mm [inch])



The HORIBA Group adopts IMS (Integrated Management System) which integrates Quality Management System ISO9001, Environmental Management System ISO14001, and Occupational Health and Safety Management System OHSAS18001. We have now integrated Business Continuity Management System ISO22301 in order to provide our products and services in a stable manner, even in emergencies.



Please read the operation manual before using this product to assure safe and proper handling of the product.



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