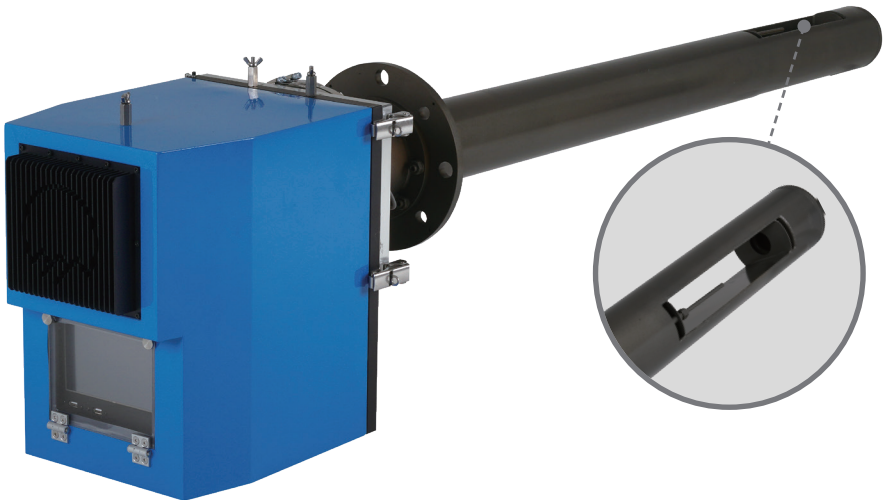


In-situ



Technical Specifications

Measured Components	SO ₂ , NO, NO ₂ , NH ₃
Measurement Principles	Differential Optical Absorption Spectroscopy (DOAS)
Measuring Ranges	SO ₂ : Min 0 ~ 50 / Max 0 ~ 2000 ppm NO _x : Min 0 ~ 40 / Max 0 ~ 2000 ppm NH ₃ : Min 0 ~ 10 / Max 0 ~ 50 ppm
Min. Measuring Unit	0.1 ppm
Zero Drift (168 hours)	< ±1 % FS
Span Drift (168 hours)	< ±1 % FS
Repeatability	< ±1 % FS
Linearity	< ±1 % FS
Response Time	< 5 seconds

System Components

Main Unit / Probe / Power Distribution Panel /
Purge Motor Unit / Master Flange / Cables

Options

Probe Protector / Teflon Coated Probe
ACU (Auto-calibration Unit)
IP66 or NEMA 4X
Regulator & Valve / Calibration Gas

Certificates Approvals

Type Approval (Korea)
US EPA (USA)
TUV (Germany)
CPA, CCEP (China)
EAC, PAC (Russia)

Features

- 01 Measures in the low wavelength UV range (200 ~ 400 nm) for high precision and minimal moisture interference
- 02 Utilizes the differential optical absorption spectroscopy (DOAS) method, eliminating the need for calibration
- 03 Selectively measures two gases out of NO_x, SO₂, and NH₃ simultaneously
- 04 Enables individual NO and NO₂ measurements without the need for a NO_x converter
- 05 Optional addition of a standard gas calibration device

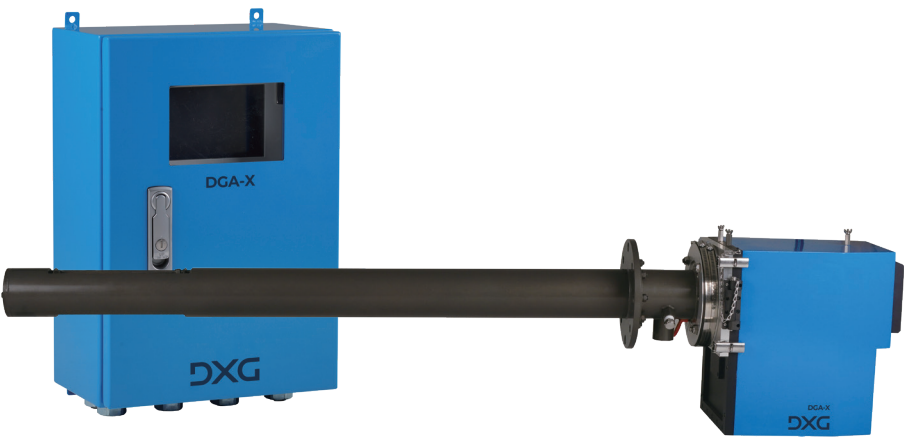
Options

DGA-X with ACU
Real Gas Calibration



Options

DGA-X
Separated Control Unit



Other Specifications

Measurement Conditions	Operating Temperature	-20 ~ +55 °C
	Gas Temperature	< +900 °C
Communication	Analog Outputs	2 Channel, 4 ~ 20 mA
	Digital Outputs	4 Channel
	Digital Inputs	2 Channel
	Display & Input Device	7 inch LCD Monitor (Touch Screen) / USB
Dimension & Power Supply	Interface	RS232, 422, 485 / LAN (Ethernet) / Hart
	Dimensions	W 300 x D 380 x H420 mm
	Weight	22 kg
	Enclosure Rating	IP 65 (IP 66)
	Voltage	110 / 220 VAC, 50 / 60 Hz
	Power Consumption	500 W

Probe	Materials	SUS 316 L or SUS 316 Ti
	Length	0.5 ~ 2.5 m
	Measurement Section Length	300 mm, 500 mm
	Gas Flow Rate	> 1 m/s
	Weight	1.5 m : 20 kg / 2.0 m : 25 kg
	Purge Motor	Necessary
Purge Motor Unit	Temperature Sensor	PT 1000
	Dimensions	W550 x D350 x H850 mm
	Weight	15 kg
Purge Motor Unit	Voltage	3P 480 VAC or 1P 220 VAC
	Power Consumption	1.0 kW ~ 1.5 kW

DGA-X Ex. | UV Absorption
NO_x, SO₂, NH₃

In-situ

Technical Specifications

Measured Components	SO ₂ , NO, NO ₂ , NH ₃
Measurement Principles	Differential Optical Absorption Spectroscopy (DOAS)
Measuring Ranges	SO ₂ : Min 0 ~ 50 / Max 0 ~ 2000 ppm NO _x : Min 0 ~ 40 / Max 0 ~ 2000 ppm NH ₃ : Min 0 ~ 10 / Max 0 ~ 50 ppm
Min. Measuring Unit	0.1 ppm
Zero Drift (168 hours)	< ±1 % FS
Span Drift (168 hours)	< ±1 % FS
Repeatability	< ±1 % FS
Linearity	< ±1 % FS
Response Time	< 5 seconds



System Components	Main Unit / Probe / Junction Box / Purge System / Master Flange / Cables
Options	Purge Motor Unit (Air Pump, Air Filter, Air Hose)

Features	01 Explosion-proof model of the DGA-X 02 In-situ explosion-proof design reduces the need for a explosion-proof shelter, saving costs and minimizing space constraints 03 Measures in the low wavelength UV range (200 ~ 400 nm) for high precision and minimal moisture interference 04 Utilizes the differential optical absorption spectroscopy (DOAS) method, eliminating the need for calibration 05 Selectively measures two gases out of NO _x , SO ₂ , and NH ₃ simultaneously 06 Enables individual NO and NO ₂ measurements without the need for a NO _x converter
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Other Specifications

Measurement Conditions	Operating Temperature -20 ~ +55 °C Gas Temperature < +900 °C
Communication	Analog Outputs 2 Channel, 4 ~ 20 mA Digital Outputs 4 Channel Digital Inputs 2 Channel Display & Input Device 7 inch LCD Monitor (Touch Screen) / USB Interface RS232, 422, 485 / LAN (Ethernet) / Hart
Dimension & Power Supply	Dimensions W 300 x D 380 x H420 mm Weight 38 kg Enclosure Rating IP 65 Voltage 110 / 220 VAC, 50 / 60 Hz Power Consumption 500 W

Probe	Materials SUS 316 L or SUS 316 Ti Length 0.5 ~ 2.5 m Measurement Section Length 300 mm, 500 mm Gas Flow Rate > 1 m/s Weight 1.5 m : 20 kg / 2.0 m : 25 kg Purge Motor Necessary Temperature Sensor PT 1000
Purge Motor Unit	Dimensions W185 x D367.5 x L153 mm (Integrated with M / U) Weight 13 kg Voltage 110 / 220 VAC, 50 / 60 Hz Power Consumption 100 W
IA (Instrument Air) Consumption	Analyzer 8.4 m³/h Probe 60 m³/h

DGA-XP

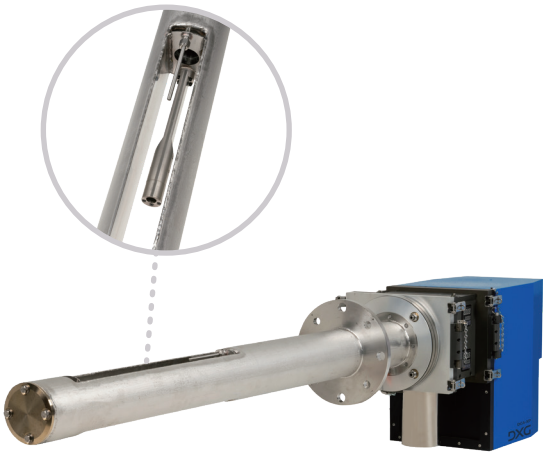
| UV Absorption / Zirconia
NO_x, SO₂, O₂

In-situ

Technical Specifications

Measured Components	NO _x , SO ₂ , O ₂
Measurement Principles	UV (NO _x , SO ₂) / Zirconia (O ₂)
Measuring Ranges	NO _x : Min 0 ~ 50 / Max 0 ~ 200 ppm SO ₂ : Min 0 ~ 50 / Max 0 ~ 200 ppm O ₂ : 0 ~ 25 %
Min. Measuring Unit	0.1 ppm (NO _x , SO ₂), 0.01 vol% (O ₂)
Zero Drift (168 hours)	< ±1 % FS
Span Drift (168 hours)	< ±1 % FS
Repeatability	< ±2 % FS
Linearity	< ±2 % FS
Response Time	< 5 seconds

System Components	Main Unit / Probe / Power Distribution Panel / Purge Motor Unit / Master Flange / Cables
Options	Probe Protector / Teflon Coated Probe IP66 or NEMA 4X (Panel) Regulator & Valve / Calibration Gas Gas Panel / ACU (Auto-calibration Unit)
Certificates / Approvals	Type Approval (Korea)



Features	01 Integrates DGA-X and GGA-70-1 to simultaneously measure NO _x , SO ₂ , and O ₂
	02 NO _x and SO ₂ measurements employ ultraviolet differential optical absorption spectroscopy (UV DOAS), while O ₂ uses zirconia sensing method
	03 Optional addition of a standard gas calibration device

Other Specifications

Measurement Conditions	Operating Temperature -20 ~ +55 °C	Probe	Materials SUS 316 L or SUS 316 Ti
	Gas Temperature < +200 °C		Length 0.5 ~ 2.5 m
Communication	Analog Outputs 3 Channel, 4 ~ 20 mA		Measurement Section Length 500 mm
	Digital Outputs 6 Channel		Gas Flow Rate > 1 m/s
	Digital Inputs 3 Channel		Weight 1.5 m : 25 kg / 2.0 m : 30 kg
	Display & Input Device 7 inch LCD Monitor (Touch Screen) / USB		Purge Motor Necessary
	Interface RS232, 422, 485 / LAN (Ethernet) / Hart		Temperature Sensor PT 1000
Dimension & Power Supply	Dimensions W300 x D380 x H420 mm	Purge Motor Unit	Dimensions W550 x D350 x H850 mm
	Weight 22 kg		Weight 15 kg
	Enclosure Rating IP66		Voltage 3 P 480 VAC or 1 P 220 VAC
	Voltage 110 / 220 VAC, 50 / 60 Hz		Power Consumption 1.0 kW ~ 1.5 kW
	Power Consumption 500 W	IA (Instrument Air) Consumption	Analyzer 0.2 m³/h