Specification

ENDA-C9000 series

	C9120	C9170*1 / C9170A*2	C9220	C9330*1 / C9330A*2	C9430*1 / C9430A*2
NH_3		○		○	○
NOx	○		○	○	○
O_2			○		○

*1 Reduction catalyst method is applied for NH_3
*2 Oxidation catalyst method is applied for NH_3

Measured components and ranges

Component	Measurement method	Std. range	Option range	Range ratio
NH_3	Chemiluminescence	20 -100ppm	10ppm	Max. 10 times
NOx		20 -100ppm	10ppm	
O_2	Magneto Pneumatic	5 - 25vol%	-	Max. 5 times

Number of range	Max. 3 ranges per component	
Number of measured components	Max. 3 components including O_2 analyzer	
	Ambient temperature -5 to 40 °C	Ambient temperature 40 to 50 °C
Repeatability	±0.5 % of full scale	±1.0 % of full scale
Drift (±5 °C ambient temperature changes)	Zero drift standard: ±1.0% of full scale per week Zero option: ±2.0% of full scale per week	Zero drift standard: ±2.0% of full scale per week Zero option: ±2.0% of full scale per week
	Span standard: ±2.0% of full scale per week	
Response time	< NOx only or NOx/O_2 > Td+T_{90} = 70 s max. from analyzer inlet, Td+T_{90} = 40 s max. from calibration inlet < With NH_3 > Td+T_{90} = 90 s max. from analyzer inlet, Td+T_{90} = 70 s max. from calibration inlet	
Linearity	±1.0 % of full scale	
Calibration gas	Automatic calibration (interval: 1 to 99 days) Zero gas: N_2 gas cylinder O_2 reference gas: N_2 gas cylinder Span gas: measurement component gas cylinder (For NO gas use NH_3 analyser)	(The calibration gas can be stored in the cabinet. However, the storage is not possible if the temperature inside the cabinet will exceed 40°C)
Materials exposed to gas	SUS-304, SUS-316, PTFE, Polypropylene, Polyethylene, Fluoro-rubber, PVC, PVDF, and glass	
Withstand voltage	AC 2000 V / 1 minute	
Display	Screen switching using touch panel	
Sampling method	Dehumidified sampling at dew point of 2.5°C (2 electronic coolers and depressurized sampling)	
Flow rate and pressure of sample gas	Flow rate: < when NOx only or NOx/O_2 > 2.0L/min, <when NH_3 also included> 1.5L/min for both NOx and NH_3 line Pressure: ±10 kPa Back pressure: ±0.98 kPa	
Pressure control method	Depressurized sampling method using pressure regulator	
Power voltage	AC 100 V ±15%, 50/60 Hz ±5%	
Analog input and output — Input	Standard max. 4ch, 4 to 20 mA or 0 to 1 V	
Analog input and output — Output	Standard max. 6ch Selection of 1 to 3 lines from combination of one of these; 4 to 20 mA DC, 0 to 16 mA DC, and 1 to 5 V DC and 0 to 1 V DC Insulation of connection board: 1500 V (400 V lightning arrester of 400 V) Maximum load resistance at the current output: 750 Ω Output impedance when voltage output: 50 Ω (0 to 1 V), 250 Ω (1 to 5 V)	
External contact input and output — Input	Standard max. 14 ch (AIC start, switch O_2 conversion correction, analog output hold, blowback start, each range L/H) Contact input: 24 V / 10 mA (including the error, 9 to 13 mA) Max. load resistance: 50 Ω	
External contact input and output — Output	Standard max. 10 ch (in-calibration, in-maintenance, analyzer alarm, analyzer caution each range L/H) Contact capacity DC voltage drive Max. voltage: 125 V, Max. current: 1A, Max. switching capacity: 25 VA, AC voltage drive Max. voltage: 250 V, Max. current: 1A, Max. switching capacity: 250 VA, Insulation of connection board: 1500 V (400 V lightning arrester is installed for the contact input circuit)	
Cabinet	Standalone type for outdoor installation Plate thickness: 3.2 mm for steel plates of main unit, door, and top plate Door: Front and back, Connections: right side or left side	
Color	Munsell 5Y 7/1 semi-gloss for both inner and outer surfaces	
Sample inlet tube	PTFE tube (ϕ 8/6)	
External dimensions (mm)	800 (W) × 800 (D) × 1800 (H) (excluding protrusions)	
Mass	450 kg (exclusing cylinders, depends on specifications)	
Probe and filter of sampling point	Frange: JIS 10 K, 125 AFF Probe tube length: 1000 mm, Material: SUS-304 Element: SUS-304 + sintered wire mesh 10μm in thickness Electric heating: 800 VA (reduction catalyst method) and 1200 VA (oxidation catalyst method) with drip-proof case Catalyst reaction efficiency: more thank 95% (catalyst reaction method), more than 90% (oxidation catalyst method)	
Installation requirements	Ambient temperature: -5 to 40 °C (without exposure to direct sunlight and radiant heat) -15 to 50 °C specification is an option Ambient humidity: 90 % or less Dust: less than environmental standard Vibration: 0.29 m/s^2 or less at 100 Hz	
Sample conditions	Temperature: 300 - 400 °C Dust: 0.1g/Nm^3 or less (reduction catalyst method), 0.01g/Nm^3 or less (oxidation catalyst method) NO: 500 ppm or less NO_2: 15 ppm or less SO_2: 200 ppm or less (reduction catalyst method), 15 ppm or less (oxidation catalyst method) SO_3: 10 ppm or less (reduction catalyst method), 1/10 of SO_2 (oxidation catalyst method) CO: 500 ppm or less CO_2: 15 vol% or less H_2O: 4 to 20 vol% or less O_2: 2 vol% or more For reduction catalyst method, NH_3 concentration should be less than NOx concentration. Corrosive gases such as HF, HCl, and CL2 as well as reactive gases should not be included.	