

Specifications

VA-5000 / VA-5000WM Analyzer

Measurement principle		NDIR	CLA	Magnetopneumatic	Galvanic cell	Zirconia	Paramagnetic	
Performance	Linearity	Standard Option	±1.0% F.S.					-
	Response time	±2.0% F.S.(range ratio 1:20)		-	-	-	-	
	Warm-up time	60 min (90 min for SO ₂)	30 sec or less (T ₉₀), 40 sec or less (Td+T ₉₀); single component ^{*1}	60 min	60 min	40 min	20 min	45 sec (Td+T ₉₀)
Flow rate	Standard	0.5L/min	0.3L/min	0.5L/min	0.5L/min	0.5L/min	0.5L/min	
	Option	1.0L/min ^{*2}	-	-	-	-	1.0L/min ^{*2}	
Communication		Ethernet (Modbus™/TCP)						
Data storage	Option	USB memory						
Input/Output (option)	Analog	Input	Maximum 4ch, 0-16 mA / 4-20 mA / 0-20 mA or 0-1 V isolated					
		Output	Maximum 8ch, 0-16 mA / 4-20 mA or 0-1 V isolated, Current output: load resistance < 750Ω, Voltage output: input impedance > 100k Ω					
	Digital	Input	Maximum 16ch isolated, Open voltage: 24 V, Short-circuit current 10mA					Maximum load resistance < 50 Ω, Minimum pulse width: 0.5 sec
		Output	Maximum 16ch isolated, Maximum voltage DC 30 V, Maximum current 1A					Minimum voltage DC 0.1 V, Minimum current 0.1 mA
Sample condition		Ambient temperature, dust free, H ₂ O less than 5°C saturation, Pressure 0 to 490 Pa Other: Shall contain no corrosive gas, combustible gas, and explosive gas.						
Gas connections		Inlet and outlet - 6 mm/4 mm PTFE: a single gas inlet is provided standard; the gas flows sequentially from one module to the next; as an option separate gas inlets can be provided for each module.						
Gas tubing		PTFE; stainless steel optional						
Joint		Sample Inlet: Rc 1/8(φ6/φ4mm PTFE joint), Exhaust: φ6/φ4mm PTFE joint Air Inlet: Rc 1/8(φ6/φ4mm PTFE joint); installed CLA. CLA: Exhaust: φ6/φ4mm PTFE joint; installed CLA, MPA Outlet: φ6/φ4mm PTFE joint; installed MPA, Zero gas Outlet: φ6/φ4mm PTFE joint; installed MPA						
Installation		Temperature 0-45°C, Humidity 90% (No condensation), Altitude Max 3000m (combination with only NDIR), (combination with Zirconia, Galvani, MPA, and CLA: max 2000m), No fluctuation of backpressure						
Protection degree		Equivalent to IP20						
Power		100-240 V AC (±10%, maximum voltage 250 VAC), 50/60 Hz (±1.0%), Consumption: 100 to 350 VA						
Display		5.7-inch touch screen						
Case		VA-5000: 19-inch panel mount / VA-5000WM: Mounted on wall						
Exterior dimensions		VA-5000: 430 (W) × 380 (D) × 132 (H) mm / Approx. 17 (W) × 15 (D) × 5.2 (H) in Deozone unit for CLA: 111 (W) × 95 (D) × 100 (H) mm / Approx. 4.4 (W) × 3.7 (D) × 3.9 (H) in *protrusions excluded VA-5000WM: 424 (W) × 206 (D) × 484 (H) mm / Approx. 17 (W) × 8 (D) × 19 (H) in *protrusions excluded						
Mass		VA-5000: 7-18kg, Approx. 15-40lb / VA-5000WM: 14-24kg, Approx. 31-53lb						

*1 When single component: flow rate is 0.5L/min (CLA: 0.3L/min)

*2 Available when all components are NDIR and PMA

VS-5000 Sampling Unit

Model	VS-5001	VS-5002	VS-5003	VS-5004
Applicable principles	NDIR, Zirconia, Galvanic cell, PMA	NDIR, Zirconia, Galvanic cell, MPA, PMA	NDIR, Zirconia, Galvanic cell, CLA, PMA	NDIR, Zirconia, Galvanic cell, MPA, CLA, PMA
Form	19 inch panel mount			
Sampling method	5°C dry sampling			
Materials	SUS, PP, PVC, PVDF, PTFE, FKM, CR, Glass			
Flow rate	0.5 L/min x 2 systems ^{*1}		1.5~5.0 L/min	
Sample supply	0.5 L/min x 2 systems ^{*1}		0.3L/min x 1 system	
Power	100~240 V AC (±10%, maximum voltage 250V AC), 50/60 Hz (±1%)			
Power consumption	150 VA		200 VA	
Joint	Sample inlet: φ8/φ6 mm PTFE joint, Sample outlet: φ6/φ4 mm PTFE joint Air outlet: φ6/φ4 mm PTFE joint, MPA inlet: φ6/φ4 mm PTFE joint Regulator: φ6/φ4 mm PTFE joint, Calibration inlet: RC1/8(φ6/φ4mm PTFE joint) Bypass outlet/Exhaust/Drain outlet: φ8mm hose end			
Sample gas	Ambient temperature, Dust: less than 0.1mg/m ³ , H ₂ O: less than 60°C saturation with drain pot (Approx. 25% H ₂ O), Pressure: ±980 Pa, SO ₂ : less than 50ppm, NO ₂ : less than 6ppm ^{*2} , (Corrosive gas, flammable gas and explosive gas are not included)			
Dimension	430 (W) × 550 (D) × 221 (H) mm / Approx. 17 (W) × 22 (D) × 8.7 (H) in (protrusions excluded)			
Mass	14kg / 31lb		20kg / 44lb	

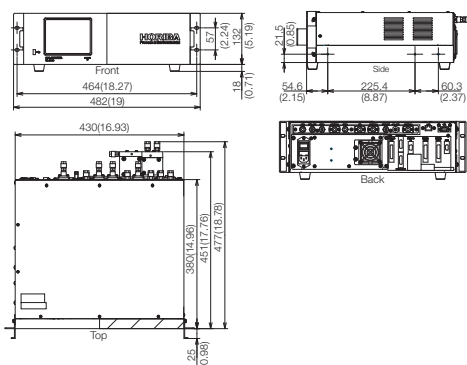
*1 Environmental temperature needs to be less than 35°C. If it's over 35°C, please consult HORIBA.

*2 When the sample gas includes more than 6ppm NO_x, it needs to use optional NO_x converter.

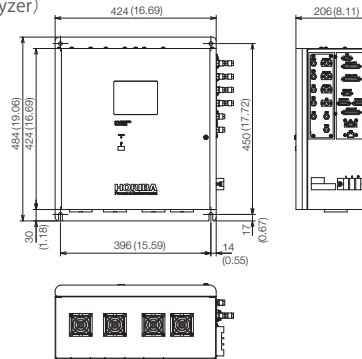
Dimensional Outlines

Rubber feet, deozone unit and mounting brackets (e.g. slide rails, and rack mounting plates) are optional. Unit: mm(in)

VA-5000 (Analyzer)



VA-5000WM (Analyzer)



VS-5000 (Sampling Unit)

