Specifications

VA-5000 Analyzer

Measurement principle			NDIR	CLA	Magnetopneumatic	Galvanic cell	Zirconia	Paramagnetic
Performance	Linearity	Standard	±1.0% F.S.					
		Option	±2.0% F.S.(range ratio 1:20)	–	–	–	–	–
	Response time*1		30 sec (T_{90}), 40 sec (Td+T_{90}); single component					45 sec (Td+T_{90})
	Warm-up time		60 min (90 min for SO_2)	60 min	60 min	40 min	20 min	120 min
Flow rate	Standard		0.5L/min	0.3L/min	0.3L/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 / 0-20 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 A					
Sample condition			Ambient temperature, dust free, H_2O less than 5°C saturation, Pressure 0 to 5kPa					
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					
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			19-inch panel mount					
Exterior dimensions			Analyzer: 430 (W) x 380 (D) x 132 (H) mm / Approx. 17 (W) x 15 (D) x 5.2 (H) in Deozonator unit for CLA: 111 (W) x 95 (D) x 100 (H) mm / Approx. 4.4 (W) x 3.7 (D) x 3.9 (H) in (protrusions excluded)					
Mass			7 -18 kg / Approx. 15 - 40lb					

*1 Flow rate: 0.5L/min, Faster response time (T_{90}) such as 7sec is achievable as special option
*2 Available when all components are NDIR and PMA

VS-5000 Sampling Unit

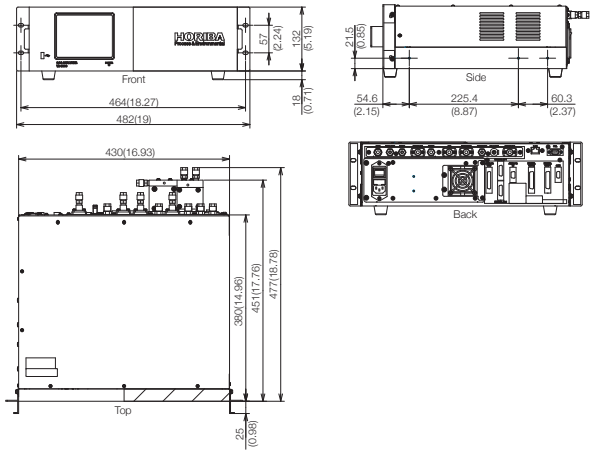
Model	VS-5001	VS-5002	VS-5003	VS-5004
Applicable principles	NDIR, Zirconia, Galvanic cell, MPA, PMA	NDIR, Zirconia, Galvanic cell, MPA, PMA	NDIR, Zirconia, Galvanic cell, MPA, CLA, PMA	NDIR, Zircoia, Galvanic cell, MPA, CLA, PMA
Form	19 inch panel mount			
Sampling method	5°C dry sampling			
Materials	SUS, PP, PVC, PVDF, PTFE, FKM, CR, Glass			
Flow rate	1.5～5.0 L/min			
Sample supply	0.5 L/min x 2 systems*1		0.3L/min x 1system	
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/m³, H_2O: less than 60°C saturation with drain pot (Approx. 25% H_2O), Pressure: ±980 Pa, SO_3: less than 50ppm, NO_2: less than 6ppm*2, (Corrosive gas, flammable gas and explosive gas are not included)			
Dimension	430 (W) x 550 (D) x 221 (H) mm / Approx. 17 (W) x 22 (D) x 8.7 (H) in (protrusions excluded)			
Mass	14kg / 31lb	16kg / 35lb	19kg / 42lb	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_2, it needs to use optional NOx converter.

Dimensional Outlines

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

VA-5000
(Analyzer)



VS-5000
(Sampling Unit)