

Vacuum Ultraviolet Detector(VGA-100 & VGA-101) Specifications

PARAMETER	VUV ANALYTICS VGA-100	VUV ANALYTICS VGA-101	NOTES
LIGHT SOURCE	Deuterium Lamp	Deuterium Lamp	
WAVELENGTH RANGE	<u>120 – 240 nm</u>	<u>120 – 430 nm</u>	
WAVELENGTH ACCURACY	± 0.2 nm	± 0.2 nm	
WAVELENGTH REPRODUCIBILITY	0.05 nm	0.05 nm	
TYPE OF RESPONSE SPECTRAL	Universal	Universal	H <sub>2</sub> , He, Ar are transparent
BANDWIDTH MAX.	< 1 nm	< 1 nm	
ACQUISITION RATE DATA	> 90 Hz	<u>90 Hz</u>	
COLLECTION INTERVAL	11 ms	11 ms	
RESPONSE CHARACTERISTIC	Absorption vs. Wavelength	Absorption vs. Wavelength	
MEASUREMENT OUTPUT	Identity, Concentration	Identity, Concentration	H <sub>2</sub> , He, Ar are transparent
DETECTED SPECIES	All compounds and classes	All compounds and classes	
TYPICAL IDLS (PG ON COLUMN)	<u>alpha-Pinene: 30</u> <u>Methyl Decanoate: 30</u> <u>Fluorene: 35</u> <u>Coumarin: 35</u> <u>n-Decane (C10): 40</u> <u>Phenylacetaldehyde: 40</u> <u>Citronellol: 65</u>	<u>Benzene: 15</u> <u>Nicotene: 19</u> <u>Naphthol: 30</u> <u>Derivitized β-estradiol: 30</u> <u>Octane: 56</u> <u>Methanol: 169</u> <u>Captan: 186</u> <u>Water: 146</u>	
LINEAR RANGE	3 – 4 orders	3 – 4 orders	
TEMPERATURE RANGE	<u>Ambient – 300 °C</u>	<u>Ambient – 430 °C</u>	
CARRIER GASES	H <sub>2</sub> , N <sub>2</sub> or He	H <sub>2</sub> , N <sub>2</sub> or He	
MAKE-UP GAS	<u>Ar, He, N<sub>2</sub></u>	<u>Ar, He, H<sub>2</sub>, N<sub>2</sub></u>	
FLOW CELL DIMENSIONS	10 cm pathlength, < 80 µL cell Volume	10 cm pathlength, < 40 µL cell Volume	
INSTRUMENT DIMENSIONS	30" × 13" × 17" (76.2 × 33 × 43.2 cm)	30" × 13" × 17" (76.2 × 33 × 43.2 cm)	
DEUTERIUM LAMP LIFETIME	> 2,000 hours	> 2,000 hours	Lamp intensity half-life @250 nm
WEIGHT	120lbs (54.4 kg)	120lbs (54.4 kg)	
POWER INPUT VOLTAGE	100/240 V	100/240 V	
POWER CONSUMPTION	< 700 VA	< 700 VA	
OPERATING SYSTEM REQUIREMENTS	Memory > 8G, Hard Drive Min 250G, Win 7/8/10(64 bit)	Memory > 8G, Hard Drive Min 250G, Win 7/8/10(64 bit)	
ADDITIONAL FACILITIES REQUIREMENTS	CDA connection, 99.999% N <sub>2</sub> connection, Typical 40 mL/min purge	CDA connection, 99.999% N <sub>2</sub> connection, Typical 40 mL/min purge	