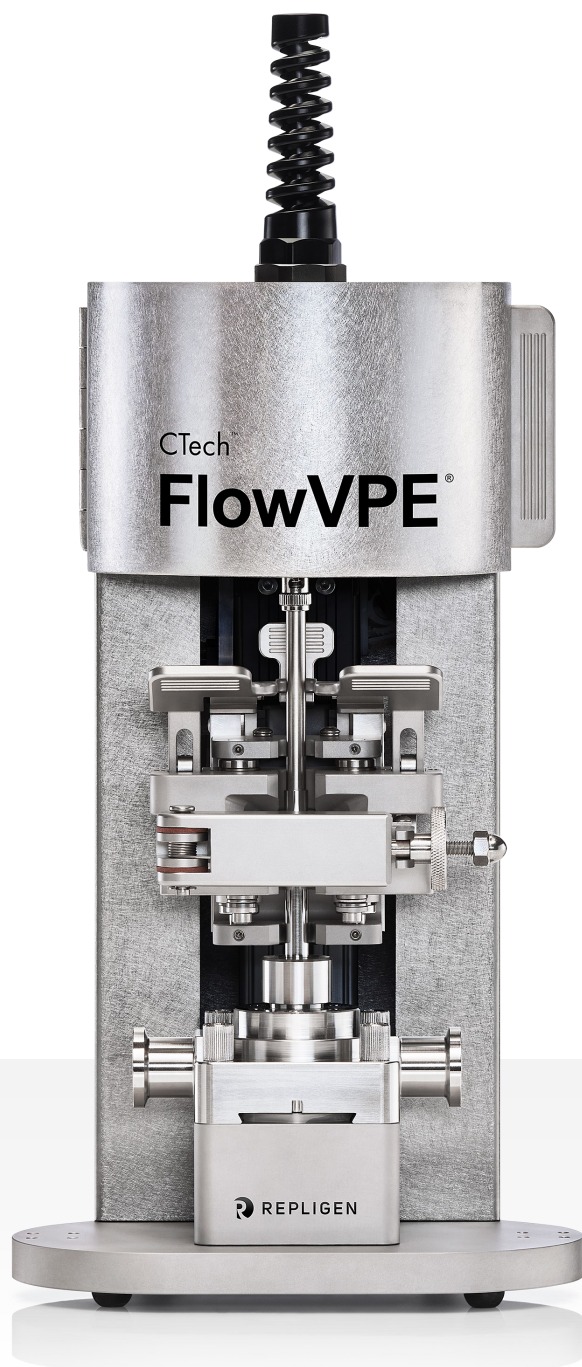


CTech™ FlowVPE® System

Product Specifications

Specification
Sheet

Part ID: SYS-VPE-FLOW



Overview

The CTech™ FlowVPE® System unlocks the power of Slope Spectroscopy® for in-line process monitoring and PAT fields. The FlowVPE System goes beyond the limitations of traditional fixed-pathlength ultraviolet-visible (UV-Vis) spectroscopy to reveal process insights and enables application and innovations that help accelerate development and drive success.

Variable pathlength technology and the Slope Spectroscopy® method deliver rapid and accurate concentration results while avoiding costly dilution and background correction steps on the widest range of samples.

Capable of making spectral and fixed-point measurements at wavelengths between 190 nm and 1100 nm, the FlowVPE System can measure concentrations from 0.1 mg/ml to 250 mg/ml with an extinction coefficient of 1.5 mL/(mg*cm). The system is adaptable to a wide range of sample types and can support lab-scale flow lines of 3 mm, pilot-scale flow lines of 10 mm, and manufacturing flow lines of 22 mm.

The FlowVPE instrument helps to reveal process characteristics previously hidden from commonly used online fixed-pathlength solutions when integrated into a variety of processes, including UF/DF, chromatography, mixing, and fill-finish.

Features Benefits			
Stainless Steel Construction	Robust stainless head design to withstand process environment.		
Removable Flow Cells	System comes with two removable Flow Cells of 3 mm and a 10 mm ID (larger sizes available upon request).		
Direct Measurement	Concentration measurement at the absorbance max ensures accurate quantification.		
Hold-Up Volumes	3 mm Flow Cell: 0.75 mL 10 mm Flow Cell: 10.0 mL 22 mm Flow Cell: 55.0 mL		
Rapid Acquisition	Concentration acquisition every five seconds.		
Education/Support	On-site installation and training included with system purchase.		
Linear range finder technology	The system automatically identifies the linear region of section data sets to verify compliance with Beer-Lambert law.		
Integration options	The system comes with a 4 mA–20 mA and 0 V–5 V analog output.		
Agilent Cary 60 Light Source	Best for labs that regularly require broadband or multi-wavelength readings between 190 and 1100 nm.		
System Specifications			
Dimensions	Cary 60 (unpacked): 477 x 567 x 196 mm (19 x 23 x 8 in) FlowVPE Head: 7 x 8 x 16 in Computer (Dell Latitude Rugged Extreme Laptop, open): 13.5 x 12 x 12 in		
Weight	Cary 60: 18.14 kg (40 lb) FlowVPE Head (without Flow Cell): 7.71 kg (17 lb) Flow Cell: 0.68 kg (1.5 lb) Computer (Dell Latitude Rugged Extreme Laptop, open): 3.63 kg (8 lb)		
Spectroscopic Engine	Agilent Cary 60 spectrophotometer		
Process Contact Materials	EPDM and platinum-cured silicone seals	316L stainless steel	UV-grade fused silica
	Medical-grade epoxy	Polyimide	Teflon seals
Maximum Pathlength	8.000 mm		
Minimum Pathlength Step	0.005 mm		
Slope Repeatability	±2%*		
Proximity to Cary 60	Delivery Fiber optic standard length 3 m (optional 6 m cable available upon request).		
Cary 60 Power Requirements	100 VAC–240 VAC		
System Power Requirements	FlowVPE unit contains no power supply (powered via Cary 60).		

*Repeatability performance requires properly validated method and controlled homogeneous samples.

System Specifications (cont.)

Operating System	Windows 10 compatible (for Win10 version 1809, v1.2.138 or later required)
Software Environment	Agilent Cary WinUV Software Suite Version 5.0/5.1 through 1019
Recommended Computer Hardware	Min processor: Intel i3 Min hard drive: 250 GB (SSD preferred) Min RAM: 8 GB

Customer Support Options

Support and Training	<p>Repligen is committed to customer success from predelivery through installation and training.</p> <p><u>Included with purchase:</u></p> <ul style="list-style-type: none"> • IQOQ • On-site system training • Full 12-month warranty support • Post-obsolescence seven-year hardware support • Single- and multi-year service contract options, which include an annual PM service • Preventative Maintenance (PM) service options • Remote and on-site training and support • Software support • One Flow Cell and Flow Fibrette® Optical Component
More Information	<p>Final application suitability of all materials and ratings are the sole responsibility of the user. Specified pressure and temperature ratings may be subject to limitations. See the <i>FlowVPE User Manual</i> DOC0096 or contact a Repligen analytical sales representative for more information.</p> <p>C Technologies, Inc. and/or its affiliates, to the extent allowed by law, disclaims, and in no event shall be liable for, any incidental or consequential damages in connection with user, instrument, or system performance in relation to all content contained in this document, including but not limited to fitness for location of use, specific purpose for use, or application. Information, descriptions, and specifications in this publication are subject to change without notice.</p> <p>Customer Support analytics-support@repligen.com +1 908-707-1009</p> <p>Repligen Corporation 685 Route 202/206 Bridgewater, NJ 08807, USA www.repligen.com/process-analytics</p> <p>© 2024 Repligen Corporation. All rights reserved. The trademarks mentioned herein are the property of Repligen Corporation or a Repligen affiliate, or their respective owners.</p>