CTech™ SoloVPE® PLUS System
Product Specifications

Part ID: **SYS-VPE-SOLO-P**

Overview

The CTech™ SoloVPE® PLUS System is an enhanced version of the SoloVPE System, offering faster performance and an extended concentration measurement range without the need for dilution. Building on our unique and patented Variable Pathlength Technology (VPT), the SoloVPE PLUS System elevates the user's experience with time savings and ease of use while maintaining the high accuracy and precision valued by leading biologic manufacturing companies for rapid at-line concentration measurement.

Unlike traditional UV-Vis methods that generate a single absorbance result, the Slope Spectroscopy® method characterizes samples using multiple absorbance data points acquired at different pathlengths. The absorbance vs. pathlength data are verified in real-time for linearity in compliance with the Beer-Lambert law. The slope of the line is directly proportional to the sample concentration and extinction coefficient, delivering results in under a minute without the need for dilution or background correction.

The SoloVPE PLUS System measures wavelengths from 190 nm to 1100 nm and pathlengths from 0.002 mm to 15.000 mm, accommodating various sample types and concentrations with proven accuracy and repeatability across systems, operators, and sites.

Invest in the SoloVPE PLUS System to future-proof your lab, expand your capabilities, and stay at the forefront of analytical technology.

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Features | Benefits

No Dilution	Measure highly concentrated samples directly without dilution.
Eliminate Background Correction	Buffer/background correction is only required in special circumstances.
Rapid Results	Concentration results can be obtained typically in less than one minute.
Low Sample Volume	Volume requirements range from <20 µl to 2.5 ml, depending on method and sample vessel.
Slope Spectroscopy Method	Slope-based measurements utilize multiple data points instead of a single absorbance value. No reference standard is required for quantitation.
Rapid Sample Characterization	Rapidly characterize samples at different wavelengths and pathlengths using a single method.
Linear Range-Finder Technology	The system automatically identifies the linear region of section data sets to verify compliance with the Beer-Lambert law.
Easy-to-use Software	Biopharma applications for ADC, AAV, & Nucleic Acids are available with built-in calculations.
GMP Ready	Software features support 21 CFR Part 11 and EU Annex 11.
Education/Support	On-site installation and training are included with system purchase.

System Specifications

Device Dimensions *(W x D x H)*	257 mm x 245 mm x 464 mm (10.1 in x 9.7 in x 18.3 in); includes Strain Relief
Weight	9 kg (20 lb)
Spectroscopic Engine	Agilent Cary 60 Spectrophotometer*
Fiber Optic Integration	Dual Use Fiber Optic Coupler
SoloVPE PLUS Power Requirements	100–240 VAC, frequency 47–63 HZ
Cary 60 Power Requirements	100–240 VAC, frequency 47–63 HZ
Operating Conditions	5°C to 38°C, 15% to 80% Relative Humidity (non-condensing)
Maximum Pathlength	15.000 mm
Minimum Pathlength	0.002 mm
Slope Repeatability	≤2% RSD†
Sample Vessel Compatibility	Fused silica (large, small, micro), disposable plastic (small)
Fibrette® Optical Component	OF0002 (fused silica + polyimide)
Sample Volume Required	Dependent on sample vessel used and method pathlength range
Orientation of Optical Path/ Measurement Axis	Vertical‡

Photometric performance characteristics are based upon the Cary 60 spectrophotometer specifications and are applicable to the Cary 60 independent of the SoloVPE PLUS instrument.
†Repeatability performance requires properly validated method and controlled homogeneous samples.
‡Samples that are not homogeneous, suspensions, improperly mixed or not in solution could produce unexpected results. This should be assessed during method development.

CTech™ ViPER® ANLYTX Software Information

Required Computer Hardware[§]	Min processor: Intel i5 Min hard drive: 250 GB (SSD preferred) Min RAM: 8 GB
Operating System	Microsoft Windows 10 or Windows 11
Software Environment	CTech™ ViPER® ANLYTX software platform
VPT Software Control	ViPER ANLYTX software
Validation Companion *(optional)*	ViPER Validate VPT application for use with the SoloVPE Validation Cuvette Adapter (SVCA)
Security Companion *(optional)*	ViPER SecureVPT™ settings (for GxP implementations)

Customer Support Options

Support and Training	Repligen is committed to customer success from pre-delivery through installation and training. Included with purchase: • IQOQ • On-site training • Full 12-month warranty support

Available Options	• Single- and multi-year service contract options, which include
	  ◊ Annual qualification (standard or CPV)
	  ◊ One complimentary service repair visit
	• Software support
	• Computer System Validation (CSV)

More information	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. Contact a Repligen Analytical Representative for more information. 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.

[§]*Recommendation per the minimum requirements of Agilent Cary WinUV Software Package*

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