

Real-time data for real-time decisions

Take an advanced step forward in manufacturing and process development, incorporate the CTech™ FlowVPX™ System into your process stream. In seconds, you can reveal information missed by other in-line, fixed-pathlength sensors while gaining higher accuracy and eliminating common error.

Scalability: Flow Cell options to meet your process stage.



Lab Scale
3 mm



Pilot Scale
10 mm



Production Scale GxP
10 mm



CTech™ FlowVPX™ instrument
for in-line analytics

The Benefits of Improved Process

Find opportunity in your process with real-time reporting—and no more out-of-spec results or costly time-consuming deviation reports. In seconds, take multiple, auto-calibrated measurements as undiluted material travels through your in-line FlowVPX System, allowing you to:

- Increase process understanding in process development stage, accelerating product to market
- Reduce cycling time and increase process efficiency (yield, throughput, resource utilization) by eliminating delays associated with off-line testing
- Strengthen your process control with high quality and highly reproducible results
- Fully enclosed, easy-to-clean design withstands harsh GMP manufacturing environments (passed IP65, C1D2, and CE marking standards)

Current Applications

The in-line, variable pathlength FlowVPX System provides accurate measurement without dilution, production disruption, or the need for time-consuming, off-line traditional testing. The system is applicable to multiple therapeutic modalities, including mAbs, recombinant protein, gene therapy, vaccines, tissue/cell therapy, and more. Get downstream process control at every stage:

- Capture/Continuous Chromatography
- Polishing Chromatography
- Ultrafiltration/Diafiltration (UF/DF)
- Drug Product Formulation



Gain better process control with in-line concentration monitoring

Get results in seconds and gain information that fixed-pathlength sensors miss. The CTech™ FlowVPX™ System conducts in-line tests on undiluted samples with real-time monitoring. Eliminate the chance of error that comes from manual off-line systems. With in-line, real-time monitoring, you can reduce or eliminate the need for production hold times and potentially save production batches.

Removable and Interchangeable for Maximum Scalability

We have designed the FlowVPX System to integrate seamlessly into most workstreams. Low-maintenance, stainless steel Flow Cells and industry receptive software can be tailored to your specific case and GMP needs.



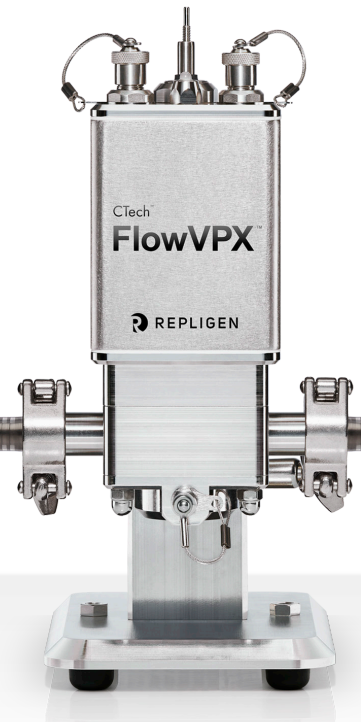
3 mm Flow Cell volume:
0.6 ml



10 mm Flow Cell volume:
9.0 ml



22 mm Flow Cell volume:
47.0 ml



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Specifications

Applications	
Dimensions (W x D x H)	Cary 60: 22 x 8 x 19 in (483 x 559 x 203 mm) FlowVPX (fully assembled): 4.72 x 3.94 x 9.06 in (120 x 100 x 230 mm) Computer (Dell Latitude Rugged Extreme Laptop, open): 13.5 x 12 x 12 in (343 x 305 x 305 mm)
Weight	Cary 60: 40 lb (18.14 kg) FlowVPX Head (fully assembled): 9 lb (4.08 kg) Computer (Dell Latitude Rugged Extreme Laptop): 8 lb (3.63 kg)
Spectroscopic Engine	Agilent Cary 60 Spectrophotometer Fiber Optic
Qualification Slope Range	0.10 Abs/mm to 46 Abs/mm using NIST traceable slope standards
Qualification Slope Repeatability	±2%
FlowVPX Mounting	Two mounting screws on base of instrument. Mounting stand available.
Maximum Pathlength	5.000 mm
Minimum Pathlength Step	0.001 mm
Cable Lengths	Delivery Fiber optic standard length 3 m (optional 6 m cable available upon request)
Cary 60 Power Requirements	90 VAC–265 VAC, frequency 47 Hz–63 Hz
FlowVPX Power Requirements	Power supply input 100 VAC–230 VAC, 50 Hz–60 Hz. VPX power input, 24 VDC, 0.6 A max current draw.
Operating System	Windows 10 compatible
Software Environment	CTech™ ViPER™ ANLYTX v1.0.0 and Agilent WinUV Software Suite v5.1.0.1019 or newer
Recommended Computer Hardware	Min Processor: Intel i5 (i7 preferred) Min Hard Drive: 250 GB (SSD preferred)

