

# CTech™ FlowVPX® Irradiated GxP Single-Use Flow Cells

## Product Specifications

Specification  
Sheet

Part ID: **OC2008-XR** (3 mm)

**OC2009-XR** (10 mm)

**OC2010-XR** (22 mm)



### Overview

The CTech™ FlowVPX® Irradiated Flow Cells are designed to provide an in-line measurement solution compatible with the FlowVPX variable pathlength system. The FlowVPX System uses unique, patented variable pathlength technology (VPT) to unlock the power of Slope Spectroscopy® measurement methods for highly regulated drug manufacturing processes. The Single-Use Flow Cell is designed to be more cost-effective, eliminating the need for tedious cleaning and maintenance and reducing the risk of cross-contamination.

The FlowVPX Irradiated Single-Use Flow Cell is a low bioburden flow cell constructed with a polyphenylsulfone (PPSU) body and standard tri-clamp connections with AseptiQuik® connectors to allow for easy, contamination-free connections. It mates directly with the FlowVPX Head and Detector Module. The flow cell was designed with a precision ethylene propylene diene monomer (EPDM) diaphragm seal, which forms a barrier around the integral Flow Fibrette® Optical Component and ensures a contained process-measurement area. Additionally, it is equipped with FlowVPX SmartCell™ Technology, which directly communicates with the FlowVPX Head and provides insightful process data and traceability. The Flow Cell is x-ray irradiated with a minimum dose of 25 kGy inside the flow path.

For more information about the Single-Use Flow Cell or variable pathlength technology, please contact a Repligen analytical sales specialist.

## Features | Benefits

<b>Polyphenylsulfone (PPSU)</b>	High-performance polymer material allows for reliable and wear-resistant use in manufacturing environments.
<b>AseptiQuik Connectors</b>	3 mm: AseptiQuik S (Item # AQS33004HT) 10 mm: AseptiQuik G (Item # AQG33012HT) 22 mm: AseptiQuik L (Item # AQL33024HT)
<b>Irradiation</b>	X-ray, minimum 25 kGy inside flow path

## Flow Cell Specifications

<b>Flow Path Inner Diameter</b>	3 mm: 3.0 mm (0.12 in) 10 mm: 9.5 mm (0.37 in) 22 mm: 22.1 mm (0.87 in)
<b>Dimensions</b> <i>(width x height x depth)</i>	3 mm: 187 x 210 x 74 mm (7.4 x 8.3 x 2.9 in) 10 mm: 204 x 204 x 73 mm (8.0 x 8.0 x 2.9 in) 22 mm: 255 x 229 x 81 mm (10.0 x 9.0 x 3.2 in)
<b>Weight</b>	3 mm: 340 g (0.75 lbs) 10 mm: 360 g (0.79 lbs) 22 mm: 646 g (1.42 lbs)
<b>Maximum Pathlength</b>	3 mm: 3.0 mm (0.12 in) 10 mm: 5.0 mm (0.20 in) 22 mm: 5.0 mm (0.20 in)
<b>Maximum Hold-Up Volume</b>	3 mm: 2.9 ml 10 mm: 24.6 ml 22 mm: 109.4 ml
<b>Maximum Pressure</b>	4.1 bar (60 psi)
<b>Process Contact Materials</b>	<ul style="list-style-type: none"> <li>• 316L stainless steel</li> <li>• EPDM seals</li> <li>• Platinum-cured silicone, USP Class VI, animal-derived component free (ADCF)</li> <li>• Medical-grade epoxy</li> <li>• PPSU</li> <li>• UV-grade fused silica windows</li> <li>• Polycarbonate, USP Class VI, ADCF</li> </ul>
<b>Non-Process Contact Materials</b>	<ul style="list-style-type: none"> <li>• PPSU</li> <li>• 316/316L stainless steel</li> <li>• Viton sealant</li> <li>• Glass-filled nylon</li> <li>• Medical-grade epoxy</li> <li>• Gold-plated electrical contacts</li> <li>• Torlon PAI</li> <li>• Hydrophobic polyethersulfone with PTFE strip membrane, USP Class VI</li> </ul>

## Operating Conditions

<b>Maximum Cycle Count</b>	150,000 cycles <i>(One cycle is a complete Quick Slope measurement or Fixed Slope measurement sequence.)</i>
<b>Operating Temperature</b>	3 mm: 4°C–40°C (39°F–104°F) 10 mm: 1°C–40°C (34°F–104°F) 22 mm: 1°C–40°C (34°F–104°F)

## Further Details

<b>Flow Cell Chemical Compatibility</b>	Customer is responsible for validating the use of their product-specific chemicals and effects on the Flow Cell.
<b>AseptiQuik Connector Chemical Compatibility</b>	See manufacturer's site ( <a href="http://cpcworldwide.com">cpcworldwide.com</a> )
<b>Shelf Life</b>	18 months from manufactured date when kept in proper storage conditions.
<b>Storage Conditions</b>	5–25°C (41–77°F), <70% relative humidity and free of condensation. Store with seals intact and protected from UV light and ozone.
<b>Hardware Compatibility</b>	FlowVPX instrument
<b>Instrument Support</b>	Single-use Flow Cells should not be used for structural support of the FlowVPX instrument. The FlowVPX instrument should be mounted using the FlowVPX Standard Mount accessory or other suitable mounting to support the weight of the FlowVPX Head.
<b>Software Requirement:</b>	CTech™ ViPER® ANLYTX Software v1.2.x or newer

## Customer Support Options

<b>Support and training</b>	Repligen is committed to customer success from predelivery through installation and training.
<b>More information</b>	<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. Contact a Repligen's Analytics 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>

### Contact

Repligen Corporation  
 685 Route 202/206  
 Bridgewater, NJ, USA 08807  
[analytics-support@repligen.com](mailto:analytics-support@repligen.com)  
 (908) 707-1009