

PATsmart™ FlowVPX® Single-Use GxP Flow Cells

Product Specifications

Specification Sheet

Part ID: **OC2008-XR** (3 mm)
OC2009-XR (10 mm)
OC2010-XR (22 mm)
OC2014-XR (0.5 in)
OC2016-XR (1 in)



Overview

PATsmart™ FlowVPX® Single-Use 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 cost effective, eliminating the need for tedious cleaning and maintenance and reducing the risk of cross-contamination. These Flow Cells are x-ray irradiated to achieve a sterility assurance level (SAL) of 10^{-6} using the VDmax20 method (per ISO 13004).

Each Single-Use Flow Cell is assembled in an ISO Class 7 clean room with a polyphenylsulfone (PPSU) body and AseptiQuik® tri-clamp connectors. It includes 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. The Flow Cell mates directly with the FlowVPX Head and Detector Module. Additionally, it is equipped with FlowVPX SmartCell™ Technology, which directly communicates with the FlowVPX Head and provides insightful process data and traceability.

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

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Part No.	OC2008-XR	OC2009-XR	OC2014-XR	OC2010-XR	OC2016-XR
General					
Flow Path Inner Diameter	3.0 mm (0.12 in)	9.5 mm (0.37 in)	12.7 mm (0.50 in)	22.1 mm (0.87 in)	26.6 mm (1.05 in)
Dimensions (W x H x D)	187 × 210 × 74 mm (7.4 × 8.3 × 2.9 in)	204 × 204 × 73 mm (8.0 × 8.0 × 2.9 in)	204 × 208 × 81 mm (8.0 × 8.2 × 3.2 in)	255 × 229 × 81 mm (10.0 × 9.0 × 3.2 in)	276 × 231 × 109 mm (10.9 × 9.1 × 4.3 in)
Weight	340 g (0.75 lb)	360 g (0.79 lb)	360 g (0.79 lb)	646 g (1.42 lb)	660 g (1.5 lb)
AseptiQuik Connectors	AseptiQuik S (AQ533004HT)	AseptiQuik G (AQG33012HT)	AseptiQuik G (AQG33112)	AseptiQuik L (AQL33024HT)	AseptiQuik L (AQL33124)
Software Requirement	PATsmart™ ViPER® ANLYTX v1.2.345	PATsmart ViPER ANLYTX v1.1.79	PATsmart ViPER ANLYTX v1.2.345	PATsmart ViPER ANLYTX v1.1.79	PATsmart ViPER ANLYTX v1.3.262
Hardware Compatibility	PATsmart FlowVPX Instrument				
Sterilization Dose Range	20.0–36.0 kGy (nominal)				
Sterility Assurance Level	10 ⁻⁶ (VDmax20)				
Performance					
Maximum Pathlength	3.000 mm	5.000 mm	5.000 mm	5.000 mm	5.000 mm
Maximum Hold-Up Volume	2.9 mL	24.6 mL	31.1 mL	109.4 mL	145.6 mL
Maximum Pressure	4.1 bar (60 psi)				
Maximum Cycle Count	150,000 cycles (One cycle is a complete Quick Slope measurement or Fixed Slope measurement sequence.)				
Environmental					
Operating Temperature	4–40°C (39–104°F)	1–40°C (34–104°F)	1–40°C (34–104°F)	1–40°C (34–104°F)	1–40°C (34–104°F)
Storage Conditions	5–25°C (41–77°F), <70% relative humidity and free of condensation. Store with seals intact and protected from UV light and ozone.				
Flow Cell Chemical Compatibility	Customer is responsible for validating the use of product-specific chemicals and effects on the Flow Cell.				
AseptiQuik Connector Chemical Compatibility	See manufacturer’s site (cpcworldwide.com)				
Shelf Life	18 months from manufactured date when kept in proper storage conditions.				

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Process Contact Materials					
Flow Cell	Polyphenylsulfone (PPSU)* UV-grade fused silica		EPDM* 316 stainless steel	Platinum-cured silicone* Medical-grade epoxy*	
AseptiQuik Connectors	Polycarbonate*	Polycarbonate*	PPSU*	Polycarbonate*	PPSU*
Non-Process Contact Materials**					
Flow Cell	Polyphenylsulfone (PPSU) Glass-filled nylon Torlon PAI	316/316L stainless steel Medical-grade epoxy Hydrophobic polyethersulfone with PTFE strip membrane	Viton sealant Gold-plated electrical contacts		

*USP Class VI compliant

**Non-process contact materials may differ between models. Contact Repligen for details.

Further Details	
Support and training	Repligen is committed to customer success from predelivery through installation and training.
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. Repligen Corporation 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.

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