

Product Specifications

Part ID: OC2004

CTech™ FlowVPX™ 22 mm Flow Cell

Overview

Engineered for rigorous bioprocessing environments, the CTech™ FlowVPX™ 22 mm Flow Cell was developed to provide an in-line measurement solution compatible with the CTech FlowVPX System. This variable pathlength technology unlocks the power of Slope Spectroscopy® measurement methods for highly regulated drug manufacturing processes. The FlowVPX 22 mm Flow Cell is designed to be modular and mate with the FlowVPX Head and Detector. It was designed with a precision EPDM diaphragm seal, which forms a barrier around the integral Flow Fibrette® and ensures a contained process-measurement area.

Additionally, Flow Cells are equipped with smart cell technology, which directly communicates with the FlowVPX Head and provides valuable information for traceability. The entire design, with special attention given to each process-contact component, has been specified for compliance with applicable industry standards (e.g., ASME Bioprocessing Equipment Standard, USP Class IV). The robust unibody construction with 1-inch Type B tri-clamp connections and 0.87-inch (22.1 mm) ID flow path allows easy integration into most production environments.

For more information about the 22 mm FlowVPX Flow Cell or the FlowVPX variable pathlength solution, contact a Repligen Analytics Representative.



Features | Advantages | Benefits

Unibody Construction: No threaded or welded pipe connections. Flow Fibrette is integrated into assembly.

Precision Engineered Fiber Optic Seal: Forms barrier to process fluid in order to maintain integral flow path during optical measurements. Tested to withstand 500,000 cycles at max pressure.

1-inch Standard Type B Tri-Clamp Connections: With a 22.1 mm (0.87 in) inner diameter flow channel.

Integrated Memory: Feature option to allow electronic reading of Flow Cell size and serial number on FlowVPX Head.

Flow Cell Specifications

Dimensions: 120 mm x 70 mm x 211 mm (4.72 in x 2.75 in x 8.3 in)

Weight: 1.36 kg (3 lb)

Maximum Pathlength: 5 mm (0.196 in)

Process Contact Materials:	EPDM Seals	UV Grade Fused Silica
	316L Stainless Steel	Medical Grade Epoxy
Non-Process Contact Materials:	316/316L Stainless Steel	Medical Grade Epoxy
	Stainless Steel Fiber Optic Connector	Gold-Plated Electrical Contacts
	Torlon	

Maximum Rated Internal Pressure: 5.5 bar (80 psi)

Maximum Operating Temperature: 49°C (120°F)

Minimum Operating Temperature: 1°C (33°F)

Autoclave Maximum Temperature: 121°C (250°F)

Maximum Hold-up Volume: 47 mL

Thermal Cycling: Rated for 3 cycles from max autoclave temperature to min operating temperature

Further Details

Storage Conditions: 5°C–23°C (40°F–72°F), 8%–75% RH. Store in original packaging away from ozone-producing devices.

Shelf Life: Two years from assembled date when kept in proper storage conditions.

Hardware Compatibility: FlowVPX instrument

Software Requirement: ViPER v1.0.90 or newer

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. See the *CTech FlowVPX System Introduction and Installation Guide* DOC0211 or contact a Repligen Analytics Representative for more information. Visit our website: <https://ctech.repligen.com/>

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