



TOQUARTZ

Product Catalog

TOQUARTZ®

Black-wall Quartz Flow Cell Cuvette with Stainless Steel Connectors

Integrated Engineering & Agile Production
for Demanded Specifications





TOQUARTZ® BLACK-WALL QUARTZ FLOW CELL CUVETTE WITH STAINLESS STEEL CONNECTORS

TOQUARTZ® is a specialized manufacturer of high-purity quartz products based in China, serving global B2B clients in laboratory instrumentation, biomedical research, and environmental monitoring. With in-house engineering support and flexible production capabilities, we offer both standard and custom TOQUARTZ® Black-wall Quartz Flow Cell Cuvette with Stainless Steel Connectors with fast delivery and consistent quality.



Product Overview

TOQUARTZ® Black-wall quartz flow cell cuvette with stainless steel connectors is designed for high-precision continuous flow spectroscopic analysis in UV-Visible and fluorescence applications. Crafted from high-purity synthetic quartz ($\geq 99.98\%$, up to $99.995\% \text{ SiO}_2$), the cell delivers exceptional chemical resistance, thermal stability, and optical transparency across the 200–2500 nm spectrum.



TOQUARTZ® BLACK-WALL QUARTZ FLOW CELL CUVETTE WITH STAINLESS STEEL CONNECTORS



Key Features

- High-purity synthetic quartz ($\geq 99.98\%$, up to 99.995% SiO_2)
- Broad spectral transparency across 200–2500 nm wavelength range
- Chemical Resistance: Compatible with most acids, bases, and organic solvents
- Minimized dead volume to reduce carry-over between analytical runs
- Compatible with standard HPLC, FIA, and real-time reaction monitoring systems



TOQUARTZ® BLACK-WALL QUARTZ FLOW CELL CUVETTE WITH STAINLESS STEEL CONNECTORS



Applications

Pharmaceutical Analysis

- HPLC detection systems for active pharmaceutical ingredients
- Quality control and process monitoring
- Stability testing and dissolution studies
- Trace impurity analysis with enhanced detection limits

Environmental Monitoring

- Continuous water quality monitoring
- Trace contaminant detection
- Long-term deployments requiring minimal maintenance
- Field-based analytical systems

Academic and Research Applications

- Custom experimental setups
- Novel analytical method development
- Kinetics studies and reaction monitoring
- Microfluidic integration and specialized detection systems



TECHNICAL SPECIFICATIONS

Physical Properties

Parameter	Specification
Material	High-purity synthetic quartz
Purity	$\geq 99.98\%$, up to 99.995% SiO ₂
Density	2.20 g/cm ³
Hardness	5.5-6.5 Mohs
Thermal Expansion	$5.5 \times 10^{-7}/^{\circ}\text{C}$ (20-320°C)
Max Operating Temp	1000°C

Chemical Properties

Parameter	Specification
Acid Resistance	Excellent (except HF)
Alkali Resistance	Good below 300°C
Organic Solvent Resistance	Excellent
Water Absorption	Nil
OH Content	<20 ppm
Metal Impurities	<10 ppm total

Optical Properties

Parameter	Specification
Spectral Range	200-2500 nm
Refractive Index	1.458 (at 546.1 nm)
UV Cutoff	170 nm
UV Transmission (10 mm)	>80% at 200 nm
VIS Transmission (10 mm)	>90% at 350-2000 nm
Surface Finish	Optical grade polish



SIZE CHART



32µl Black-wall Quartz Flow Cell Cuvette with Stainless Steel Connectors, Center Height 8.5mm

Model	Description	PathLength	Volume	Outline Dimension
AT-BSM-8003	32µl Black-wall Quartz Flow Cell Cuvette with Stainless Steel Connectors, Center Height 8.5mm	10mm	32µl	12.5x12.5x35 mm



SIZE CHART



800µl Black-wall Quartz Flow Cell Cuvette with Stainless Steel Connectors

Model	Description	PathLength	Volume	Outline Dimension
AT-BSM-8003-1	800µl Black-wall Quartz Flow Cell Cuvette with Stainless Steel Connectors	10mm	1750µl	12.5x12.5x35 mm



SIZE CHART



30µl Black-wall Quartz Flow Cell Cuvette with Stainless Steel Connectors, Compatible with Mindray BA-88A Chemistry Analyzer

Model	Description	PathLength	Volume	Outline Dimension
AT-BSM-8005	30µl Black-wall Quartz Flow Cell Cuvette with Stainless Steel Connectors, Compatible with Mindray BA-88A Chemistry Analyzer	10mm	30µl	12.5x12.5x35 mm



SIZE CHART



96µl Black-wall Quartz Flow Cell Cuvette with Stainless Steel Connectors

Model	Description	PathLength	Volume	Outline Dimension
AT-BSM-8024	96µl Black-wall Quartz Flow Cell Cuvette with Stainless Steel Connectors	30mm	96µl	12.5x32.5x35 mm



SIZE CHART



64µl Black-wall Quartz Flow Cell Cuvette with Stainless Steel Connectors

Model	Description	PathLength	Volume	Outline Dimension
AT-BSM-8027	64µl Black-wall Quartz Flow Cell Cuvette with Stainless Steel Connectors	20mm	64µl	12.5x22.5x35 mm



SIZE CHART

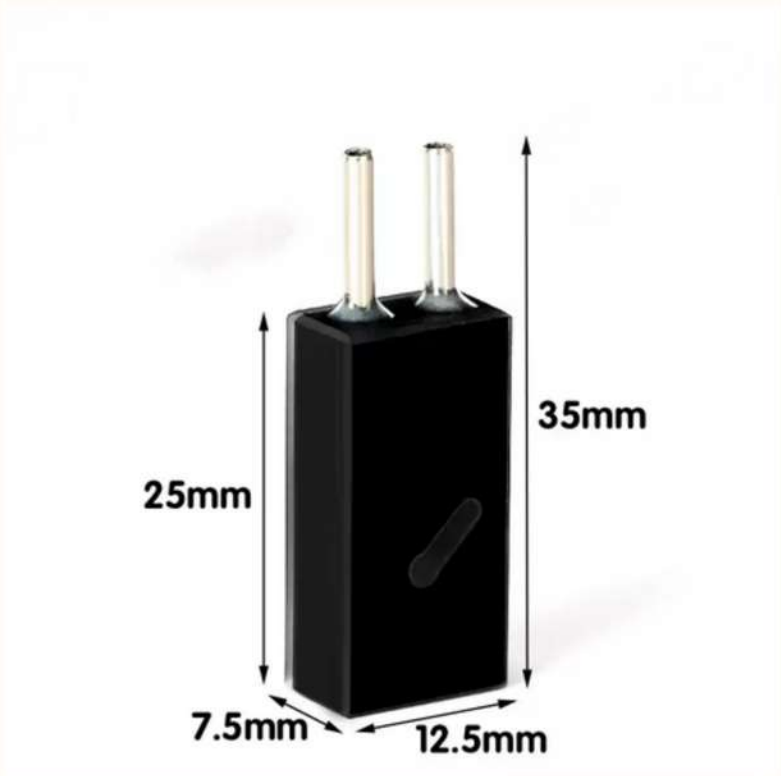


180µl Black-wall Quartz Flow Cell Cuvette with Stainless Steel Connectors

Model	Description	PathLength	Volume	Outline Dimension
AT-BSM-8028	180µl Black-wall Quartz Flow Cell Cuvette with Stainless Steel Connectors	20mm	180µl	12.5x22.5x45 mm



SIZE CHART



16µl Black-wall Quartz Flow Cell Cuvette with Stainless Steel Connectors

Model	Description	PathLength	Volume	Outline Dimension
AT-BSM-8028-1	16µl Black-wall Quartz Flow Cell Cuvette with Stainless Steel Connectors	5mm	16µl	12.5x7.5x25mm



CUSTOM ENGINEERING SERVICES

Customization Services Our engineering team provides comprehensive customization options to meet your specific requirements:

- Custom pathlengths from 0.1mm to 100mm
- Modified window dimensions and thickness
- Specialized flow channel geometries
- Alternative connection configurations
- Enhanced pressure ratings
- Material variants for specific applications



QUALITY ASSURANCE

Each TOQUARTZ Quartz Cuvette undergoes rigorous quality control testing:

- **Dimensional Verification:** Precision measurement of all critical dimensions
- **Optical Transmission Testing:** Verification of spectral transmission properties
- **Surface Quality Inspection:** Microscopic examination of polished surfaces
- **Paired Performance Testing:** Validation of optical consistency

Contact Information

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TOQUARTZ® - Precision Quartz Solutions for Industry and Research

For technical specifications, custom requirements, or pricing information, please contact our sales team.