56 Sparta Avenue • Newton, New Jersey 07860
(973) 300-3000 Sales • (973) 300-3600 Fax
www.thorlabs.com

THORLABS

CV10Q3500 - JUNE 30, 2021

Item # CV10Q3500 was discontinued on JUNE 30, 2021. For informational purposes, this is a copy of the website content at that time and is valid only for the stated product.

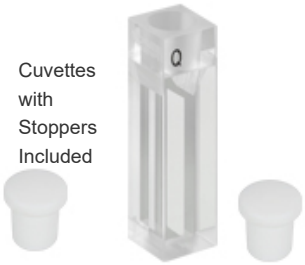
UV FUSED QUARTZ CUVETTES

- **Optical UV Fused Quartz Glass Cuvettes**
- **Versions with Two or Four Polished Windows Available**
- **Super Micro, Micro, and Macro Cuvettes with 100 µL, 700 µL, 1400 µL, or 3500 µL Capacity**

CV10Q100
Super Micro Cuvette,100 µL

CV10Q3500F-E
Enhanced Chemical Resistance Macro Fluorescence Cuvette 3500 µL

CV10Q1400S
Macro Cuvette, 1400 µL



CV10Q700FS
Micro Fluorescence Cuvette, 700 µL

Application Idea

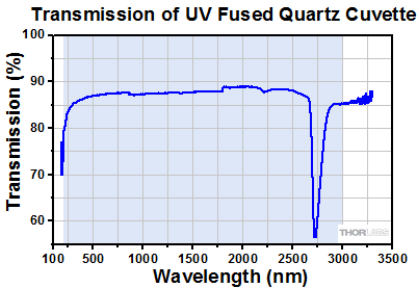
CV10Q3500 Cuvette in a CVH100 Cage-Compatible Cuvette Holder

OVERVIEW

Features

- Crafted from UV Fused Quartz Glass for the 200 nm - 3 µm Wavelength Range
- Versions with Two or Four Polished Windows for Spectroscopy Use
- 100 µL, 700 µL, 1400 µL, and 3500 µL Capacities Available
- Standard 12.5 ± 0.2 mm Square Profile with 10 mm Transmitted Path Length
- Available with PTFE Top Caps or Airtight Stoppers

Click to Enlarge
Outer Surfaces of the Cuvettes Feature an Engraved Part Number and a "Q" Indicating their Quartz Construction



Click to Enlarge
Click for Raw Data
The Shaded Region Indicates the Specified Wavelength Range

Our Cuvettes are high-quality cells designed to hold liquid samples.

The UV fused quartz glass construction allows these cuvettes to be used with UV light at wavelengths as low as 200 nm, as well as with visible and infrared light up to 3 µm. Thorlabs offers cuvettes with either two polished sides, for use in absorption spectroscopy experiments, or four polished sides, for use in fluorescence spectroscopy. The polished sides can be cleaned using standard optics cleaning procedures. Versions are also available with one of two PTFE tops: a cap to block dust and other particles or a stopper to prevent evaporation and provide an airtight seal.

The standard 12.5 ± 0.2 mm square outside dimension and 10 mm transmitted path length through the sample make these cuvettes compatible with most spectrophotometers as well as our cage-compatible Cuvette Holder and Fiber Optic Filter and Cuvette Mounts. We offer macro, micro, and super micro sizes (see the tables below for more information), sold in packs of two. The macro cuvette with four polished sides and a dust cap is also available in a version with enhanced chemical resistance. All cuvettes are engraved on the outer surface with the item # and a letter "Q" designating quartz construction and the typical input side.

The super micro and micro cuvettes are assembled with glue. Our macro cuvettes are assembled by heating the quartz to a high temperature and then applying pressure to adhere the pieces together. The standard 3500 µL cuvettes have quartz powder applied to the edges before heating, whereas the enhanced, chemically-resistant 3500 µL cuvette (Item # CV10Q3500F-E) is made by finely polishing the quartz pieces before attaching, consequently providing smoother seams.

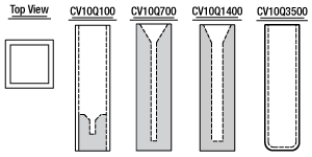
Solvent Compatibility

All standard cuvettes should not be used with benzene, toluene, aqua regia, ethanol, corrosive solutions, or other similar substances, as they may degrade the bonds between the pieces and cause the cuvette to leak. The enhanced chemical resistance cuvette is compatible with corrosive solutions such as aqua regia. Contact Tech Support for instructions on cleaning the cuvettes found on this page.

UV Fused Quartz Cuvettes with Caps, 2 Polished Sides

- Two Polished Windows for Absorption Spectroscopy
- PTFE Cap Included with Each Cuvette to Block Dust or Other Particles
- Fabricated from UV Fused Quartz (200 nm - 3 µm)
- Four Capacities Available: 100 µL, 700 µL, 1400 µL, and 3500 µL
- Sold in Packs of 2

Click for Details
Dust Cap Rests on Top of the Cuvette



Click for Details
See the Documents tab for complete mechanical drawings of each cuvette.

Item #	Type	Capacity
CV10Q100	Super Micro[a]	100 µL
CV10Q700	Micro	700 µL
CV10Q1400	Micro	1400 µL
CV10Q3500	Macro	3500 µL

a. 8.5 mm Beam Height as Measured from the Bottom of the Cuvette

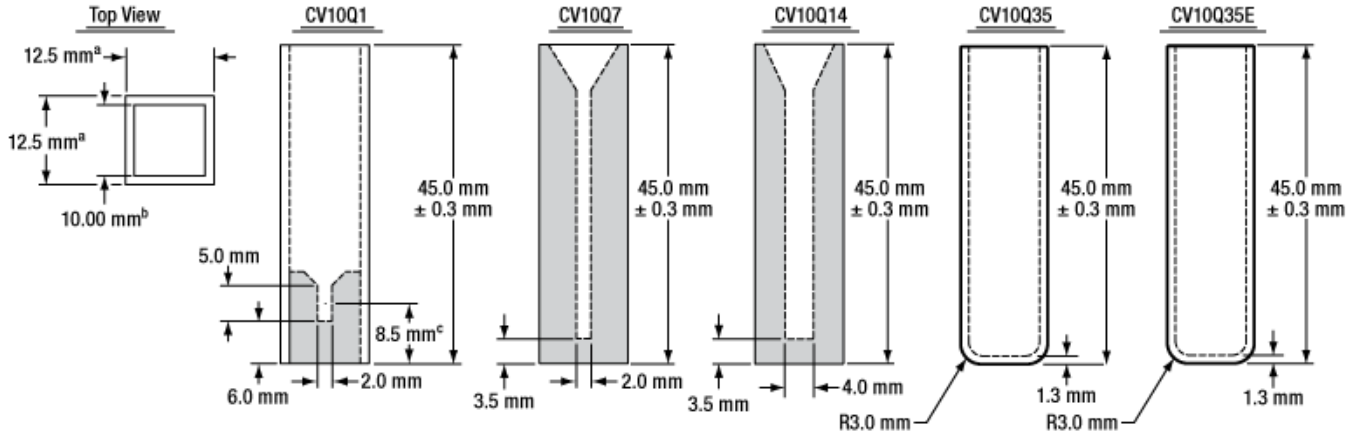
These UV Fused Quartz cuvettes have two polished sides for use in absorption spectroscopy experiments and two frosted sides for handling. The polished sides can be cleaned using standard optics cleaning procedures. Since these cuvettes only have two polished windows, they are not appropriate for use in fluorescence spectroscopy where it is necessary to have four polished windows to allow measurement of the fluorescence at right angles to the beam path. Thorlabs offers cuvettes with four polished sides below.

These cuvettes have a standard 12.5 ± 0.2 mm square outside dimension, a 10 mm transmitted path length through the sample, and are available in one of four capacities (100 µL, 700 µL, 1400 µL, or 3500 µL). Each cuvette is engraved with the Item # as well as a letter "Q" that designates its quartz construction and the typical input side, and each comes with a PTFE cap to prevent contamination by dust or other particles. The unused optical surfaces are black to reduce scattered light, except for those on the CV10Q3500.

The CV10Q100, CV10Q700, and CV10Q1400 cuvettes are assembled with glue. The CV10Q3500 cuvette is assembled by applying quartz powder to the edges, heating the quartz to a high temperature, and then applying pressure to adhere the pieces together.

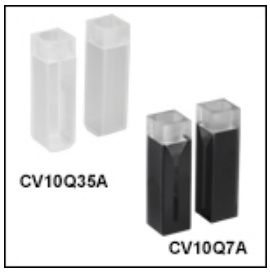
Please note that these cuvettes should not be used with benzene, toluene, aqua regia, ethanol, corrosive solutions, or other similar substances, as they may degrade the bonds between the pieces and cause the cuvette to leak.

Part Number	Description	Price	Availability
CV10Q100	**100 µL Super Micro Cuvette with Cap, 8.5 mm Beam Height, 2 Pack**	**$120.12**	**Lead Time**
CV10Q700	**700 µL Micro Cuvette with Cap, 2 Pack**	**$73.05**	**Lead Time**
CV10Q1400	**1400 µL Micro Cuvette with Cap, 2 Pack**	**$73.05**	**Lead Time**
CV10Q3500	**3500 µL Macro Cuvette with Cap, 2 Pack**	**$33.28**	**5-8 Days**



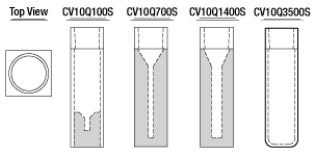
a. ±0.2 mm for Standard Cuvettes; +0.0/-0.2 mm for Cuvettes with Enhanced Chemical Resistance
b. ±0.08 mm for Standard Cuvettes; ±0.05 mm for Cuvettes with Enhanced Chemical Resistance
c. This is the Z dimension, which is the optimal beam height measured from the bottom of the cuvette.

UV Fused Quartz Cuvettes with Airtight Stoppers, 2 Polished Sides



- Two Polished Windows for Absorption Spectroscopy
- PTFE Stopper Included with Each Cuvette for an Airtight Seal
- Fabricated from UV Fused Quartz (200 nm - 3 µm)
- Four Capacities Available: 100 µL, 700 µL, 1400 µL, and 3500 µL
- Sold in Packs of 2

Click for Details
Airtight Stopper Wedges into the Top of the Cuvette



Click for Details
See the Documents tab for complete mechanical drawings of each cuvette.

Item #	Type	Capacity
CV10Q100S	Super Micro[a]	100 µL
CV10Q700S	Micro	700 µL
CV10Q1400S	Micro	1400 µL
CV10Q3500S	Macro	3500 µL

a. 8.5 mm Beam Height as Measured from the Bottom of the Cuvette

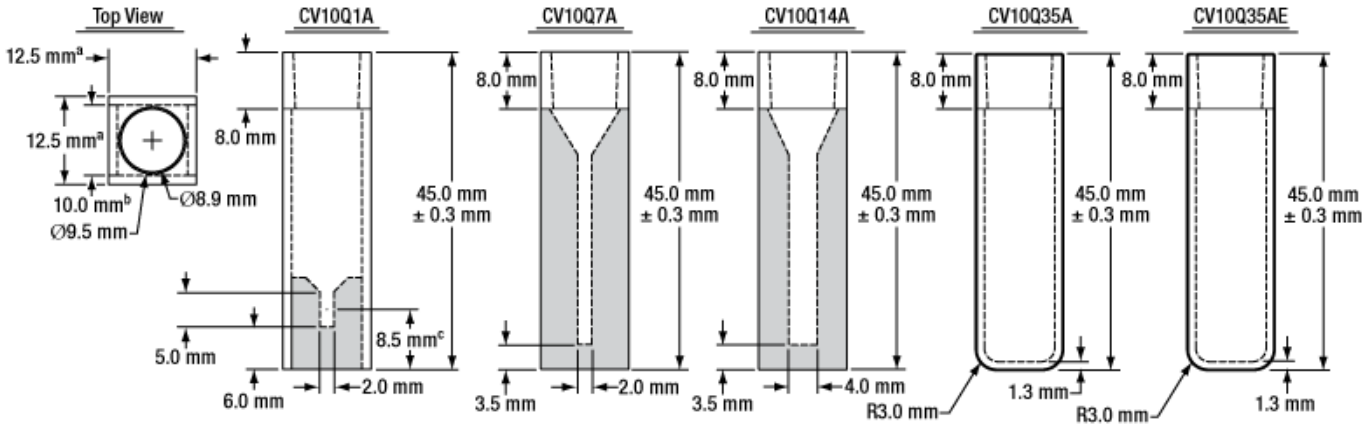
These UV Fused Quartz cuvettes have two polished sides for use in absorption spectroscopy experiments and two frosted sides for handling. The polished sides can be cleaned using standard optics cleaning procedures. Since these cuvettes only have two polished windows, they are not appropriate for use in fluorescence spectroscopy where it is necessary to have four polished windows to allow measurement of the fluorescence at right angles to the beam path. Thorlabs offers cuvettes with four polished sides below.

These cuvettes have a standard 12.5 ± 0.2 mm square outside dimension, a 10 mm transmitted path length through the sample, and are available in one of four capacities (100 µL, 700 µL, 1400 µL, or 3500 µL). Each cuvette is engraved with the Item # as well as a letter "Q" that designates its quartz construction and the typical input side, and each comes with a PTFE stopper to create an airtight seal and to prevent evaporation and atmospheric contamination of the contents. The stopper should be inserted gently into the top of the cuvette; excessive force will cause difficulty with removing the stopper. The unused optical surfaces are black to reduce scattered light, except for those on the CV10Q3500S.

The CV10Q100S, CV10Q700S, and CV10Q1400S cuvettes are assembled with glue. The CV10Q3500S cuvette is assembled by applying quartz powder to the edges, heating the quartz to a high temperature, and then applying pressure to adhere the pieces together.

Please note that these cuvettes should not be used with benzene, toluene, aqua regia, ethanol, corrosive solutions, or other similar substances, as they may degrade the bonds between the pieces and cause the cuvette to leak.

Part Number	Description	Price	Availability
CV10Q100S	**100 µL Super Micro Cuvette with Stopper, 8.5 mm Beam Height, 2 Pack**	**$150.41**	**Today**
CV10Q700S	**700 µL Micro Cuvette with Stopper, 2 Pack**	**$117.96**	**Lead Time**
CV10Q1400S	**1400 µL Micro Cuvette with Stopper, 2 Pack**	**$117.96**	**Lead Time**
CV10Q3500S	**3500 µL Macro Cuvette with Stopper, 2 Pack**	**$81.70**	**Lead Time**

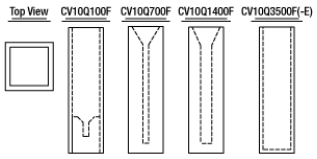


a. ±0.2 mm for Standard Cuvettes; +0.0/-0.2 mm for Cuvettes with Enhanced Chemical Resistance
b. ±0.08 mm for Standard Cuvettes; ±0.05 mm for Cuvettes with Enhanced Chemical Resistance
c. This is the Z dimension, which is the optimal beam height measured from the bottom of the cuvette.

UV Fused Quartz Cuvettes with Caps, 4 Polished Sides

- Four Polished Windows for Fluorescence Spectroscopy
- PTFE Cap Included with Each Cuvette to Block Dust or Other Particles
- Fabricated from UV Fused Quartz (200 nm - 3 µm)
- Four Capacities Available: 100 µL, 700 µL, 1400 µL, and 3500 µL
- Enhanced Chemical Resistance Cuvette Available with a 3500 µL Capacity
- Sold in Packs of 2

Click for Details
Dust Cap Rests on Top of the Cuvette



Click for Details
See the Documents tab for complete mechanical drawings of each cuvette.

Item #	Type	Capacity
CV10Q100F	Super Micro[a]	100 µL
CV10Q700F	Micro	700 µL
CV10Q1400F	Micro	1400 µL
CV10Q3500F	Macro[b]	3500 µL

a. 8.5 mm Beam Height as Measured from the Bottom of the Cuvette
b. Enhanced Chemical Resistance Version Also Available (CV10Q3500F-E)

These UV Fused Quartz cuvettes have four polished sides for use in fluorescence spectroscopy experiments. The four polished windows allow measurement of the fluorescence at right angles to the beam path and can be cleaned using standard optics cleaning procedures. While these cuvettes are designed for use in fluorescence, the through beam windows can be used independently for other spectroscopic applications. Thorlabs also offers cuvettes with two polished sides and two frosted sides designed specifically for these other applications (sold above).

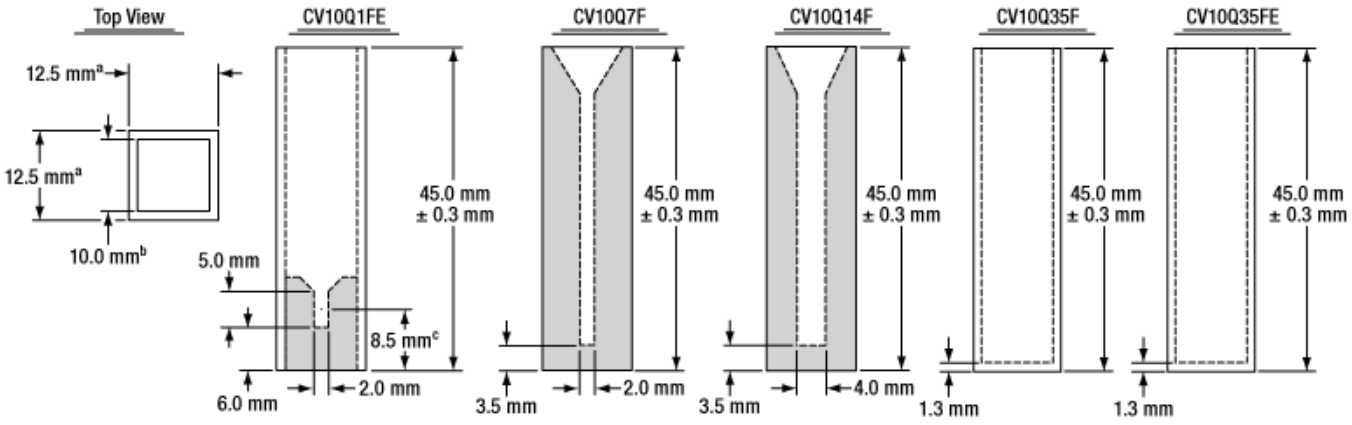
These cuvettes have a standard 12.5 ± 0.2 mm square outside dimension, a 10 mm transmitted path length through the sample, and are available in one of four capacities (100 µL, 700 µL, 1400 µL, or 3500 µL). The standard 100 µL, 700 µL, and 1400 µL cuvettes (item # CV10Q100F, CV10Q700F, and CV10Q1400F) are assembled with glue, which can be destroyed by benzene or other solutions with strong corrosive characteristics.

Our 3500 µL cuvette is available in a standard version (item # C10Q3500F) as well as an enhanced, chemically resistant version (item # C10Q3500F-E). Both 3500 µL cuvettes are assembled by first heating the quartz to a high temperature and then applying pressure to adhere the pieces together, eliminating the need for glue. The standard 3500 µL cuvette (item # CV10Q3500F) has quartz powder applied to the edges before heating, whereas the enhanced, chemically-resistant 3500 µL cuvette is made by finely polishing the quartz pieces before attaching, consequently providing smoother seams. This method allows the enhanced chemical resistance cuvette to hold solutions with corrosive properties, similar to those of nitrohydrochloric acid (aqua regia), without being damaged.

Note that all standard cuvettes should not be used with benzene, toluene, aqua regia, ethanol, corrosive solutions, or other similar substances, as they may degrade the bonds between the pieces and cause the cuvette to leak.

Each cuvette is engraved with the Item # as well as a letter "Q" that designates its quartz construction and the optical window axis, and each comes with a PTFE cap to prevent contamination by dust or other particles.

Part Number	Description	Price	Availability
CV10Q100F	**100 µL Super Micro Fluorescence Cuvette with Cap, 8.5 mm Beam Height, 2 Pack**	**$212.10**	**5-8 Days**
CV10Q700F	**700 µL Micro Fluorescence Cuvette with Cap, 2 Pack**	**$150.41**	**5-8 Days**
CV10Q1400F	**1400 µL Micro Fluorescence Cuvette with Cap, 2 Pack**	**$150.41**	**Lead Time**
CV10Q3500F	**3500 µL Macro Fluorescence Cuvette with Cap, 2 Pack**	**$84.14**	**5-8 Days**
CV10Q3500F-E	**3500 µL Enhanced Chemical Resistance Fluorescence Cuvette, 2 Pack**	**$175.31**	**Lead Time**

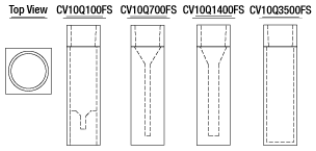


a. ±0.2 mm for Standard Cuvettes; +0.0/-0.2 mm for Cuvettes with Enhanced Chemical Resistance
b. ±0.08 mm for Standard Cuvettes; ±0.05 mm for Cuvettes with Enhanced Chemical Resistance
c. This is the Z dimension, which is the optimal beam height measured from the bottom of the cuvette.

UV Fused Quartz Cuvettes with Airtight Stoppers, 4 Polished Sides

- Four Polished Windows for Fluorescence Spectroscopy
- PTFE Stopper Included with Each Cuvette for an Airtight Seal
- Fabricated from UV Fused Quartz (200 nm - 3 µm)
- Four Capacities Available: 100 µL, 700 µL, 1400 µL, and 3500 µL
- Sold in Packs of 2

Click for Details
Airtight Stopper Wedges into the Top of the Cuvette



Click for Details
See the Documents tab for complete mechanical drawings of each cuvette.

Item #	Type	Capacity
CV10Q100FS	Super Micro[a]	100 µL
CV10Q700FS	Micro	700 µL
CV10Q1400FS	Micro	1400 µL
CV10Q3500FS	Macro	3500 µL

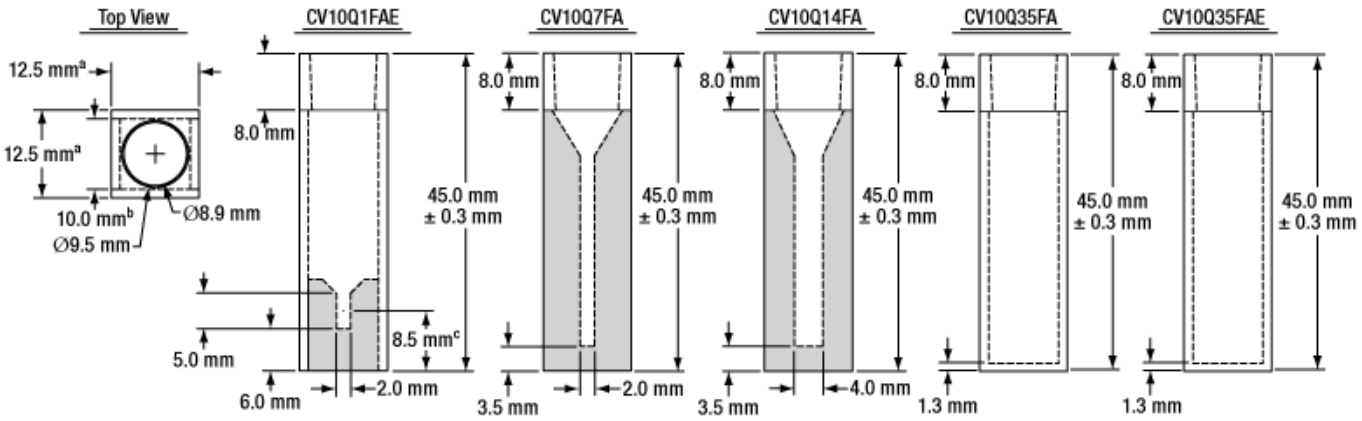
a. 8.5 mm Beam Height as Measured from the Bottom of the Cuvette

These UV Fused Quartz cuvettes have four polished sides for use in fluorescence spectroscopy experiments. The four polished windows allow measurement of the fluorescence at right angles to the beam path and can be cleaned using standard optics cleaning procedures. While these cuvettes are designed for use in fluorescence, the through beam windows can be used independently for other spectroscopic applications. Thorlabs also offers cuvettes with two polished sides and two frosted sides designed specifically for these other applications (sold above).

These cuvettes have a standard 12.5 ± 0.2 mm square outside dimension, a 10 mm transmitted path length through the sample, and are available in one of four capacities (100 µL, 700 µL, 1400 µL, or 3500 µL). Each cuvette is engraved with the Item # as well as a letter "Q" that designates its quartz construction and the optical window axis, and each comes with a PTFE stopper to create an airtight seal and to prevent evaporation and atmospheric contamination of the contents. The stopper should be inserted gently into the top of the cuvette; excessive force will cause difficulty with removing the stopper.

Please note that these cuvettes should not be used with benzene, toluene, aqua regia, ethanol, corrosive solutions, or other similar substances, as they may degrade the bonds between the pieces and cause the cuvette to leak.

Part Number	Description	Price	Availability
CV10Q100FS	**100 µL Super Micro Fluorescence Cuvette with Stopper, 8.5 mm Beam Height, 2 Pack**	**$247.81**	**Today**
CV10Q700FS	**700 µL Micro Fluorescence Cuvette with Stopper, 2 Pack**	**$181.80**	**5-8 Days**
CV10Q1400FS	**1400 µL Micro Fluorescence Cuvette with Stopper, 2 Pack**	**$181.80**	**Lead Time**
CV10Q3500FS	**3500 µL Macro Fluorescence Cuvette with Stopper, 2 Pack**	**$117.96**	**5-8 Days**



a. ±0.2 mm for Standard Cuvettes; +0.0/-0.2 mm for Cuvettes with Enhanced Chemical Resistance
b. ±0.08 mm for Standard Cuvettes; ±0.05 mm for Cuvettes with Enhanced Chemical Resistance
c. This is the Z dimension, which is the optimal beam height measured from the bottom of the cuvette.