

Flow Cell [All Options]

Applied Analytics Data Sheet No. DS-207X — Revised 19 June 2013



The sample/signal interface.

The flow cell is where the molecules in the sample fluid interact with the light signal from the detector. The sample (gas/liquid) continuously flows through the cylindrical cell from one end to the other. Fiber optic cables connect to both ends of the flow cell through collimators and transmit a light signal through the circulating sample.

Flow Cell Options

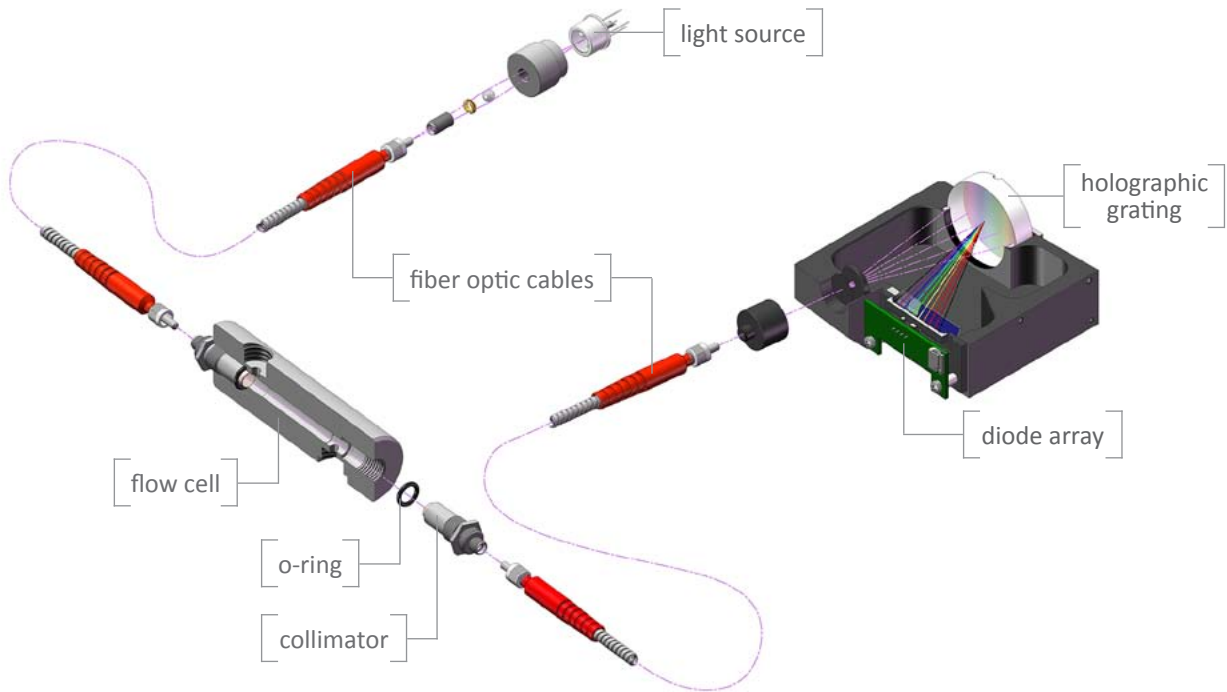
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Optical Assembly

In an Applied Analytics system, the detector and light source are normally mounted inside the analyzer enclosure, while the flow cell is installed externally (typically closer to the sampling point). The assembly is depicted below:



Collimators are inserted into either end of the flow cell through o-rings that seal in the continuously drawn process sample. The fiber optic cables which carry the signal are inserted directly into the SMA 905 connections in the collimators.

Application-Specific Path Length

The path length of the flow cell is optimized in accordance with Beer-Lambert Law; longer lengths are required for low-concentration applications to maximize signal/molecule interactions within the cell. The length ranges widely:



2 mm path



600 mm path

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Stainless Steel 316L Flow Cell



The default flow cell for most Applied Analytics analyzers.

Technical Data	
Body Material	316L stainless steel
Path Length	Ranges from 2 mm to 600 mm (application-dependent)
Pressure Rating	3,000psi
Temperature Rating	150 °C (w/ cooling extensions)
Connection	1/4" Swagelok tube fitting

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Sanitary Flange Flow Cell



This flow cell is specially designed for Clean-in-Place and similar analysis applications.

Technical Data	
Body Material	316L stainless steel
Path Length	Application-dependent

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Kynar® Flow Cell



The Kynar flow cell is used in applications that require highly non-reactive wetted materials.

Technical Data	
Body Material	Kynar® PVDF
Path Length	Application-dependent

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Teflon® Flow Cell



The Teflon flow cell is used in applications that require extreme corrosion resistance.

Technical Data	
Body Material	Teflon®
Path Length	Application-dependent

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Additional Options

For more information on the options listed below, please inquire directly with Sales.

[Hastelloy C-276 Flow Cell](#)

[Monel 400 Flow Cell](#)

[Inconel Flow Cell](#)

[PEEK Flow Cell](#)



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