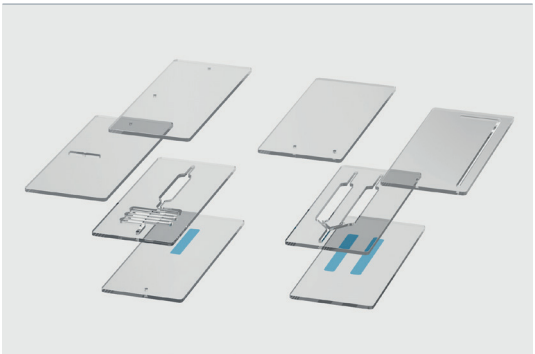
MATERION
// BALZERS OPTICS

Flow Cells

Glue and adhesive-free microfluidic cells

Materion Balzers Optics fabricates robust glass flow cells for life science, medical device and chemical analysis markets. The combination of 2 or more structured material layers enables realization of customized channel architectures. External and internal surfaces can be further modified with optical coatings (eg. IR mirrors, fluorescence filters, anti-reflex), nanofeatures (e.g. grating structures) or biofunctional coatings (adhesion promoters, linker chemistry).*

Customers deploy these microfluidic components to analyze small volumes and reduce the cost of reagents in specific applications.



Examples of flow cell designs

Benefits

- Glue and adhesive free
- Optical grade channel bottoms
- Compatible with autoclave and UV-light sterilization
- Suitable for ultrasound and chemical cleaning
- Cost effective wafer-level production
- High volume manufacturing

Technical Data

Glass material SCHOTT D263® T eco
2D or 3D channel layout
Variable channel heights from 100 µm to 1000 µm*
Channel aspect ration (width/height) 5:1
Suitable for optical measurements in visible & NIR range
Minimal wall thickness below 1 mm thanks to high bonding strength
Holes for fluidics ports

Applications

- Diagnostic devices
- DNA or protein biosensors
- Biofluid analysis
- Microreactors
- Cell counting and analysis
- Flow visualization
- Chemical analysis

* For surface functionalization and specific channel heights please send us your request.