

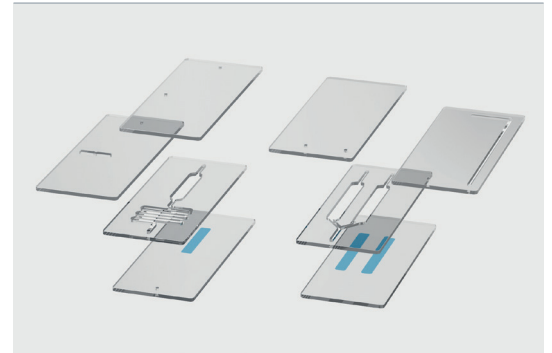


# Flow Cells

## 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), nanostructures (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<sup>+</sup> T eco  
2D or 3D channel layout  
Variable channel heights from 100  $\mu\text{m}$  to 1000  $\mu\text{m}$ \*  
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

Optics Balzers AG  
Neugrüt 35  
LI-9496 Balzers

Liechtenstein  
T +423 388 9200  
F +423 388 9390  
info.mbo@materion.com  
www.materionbalzersoptics.com

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