

Fiber Optic Transflection Probe

FlexiSpec[®]



On-line transmission spectroscopy in liquids at long distance

High throughput in any part of UV -VIS and VIS-NIR spectra

Flexible and robust for industrial applications in harsh environment

Zero-straylight optical design for maximum spectral accuracy

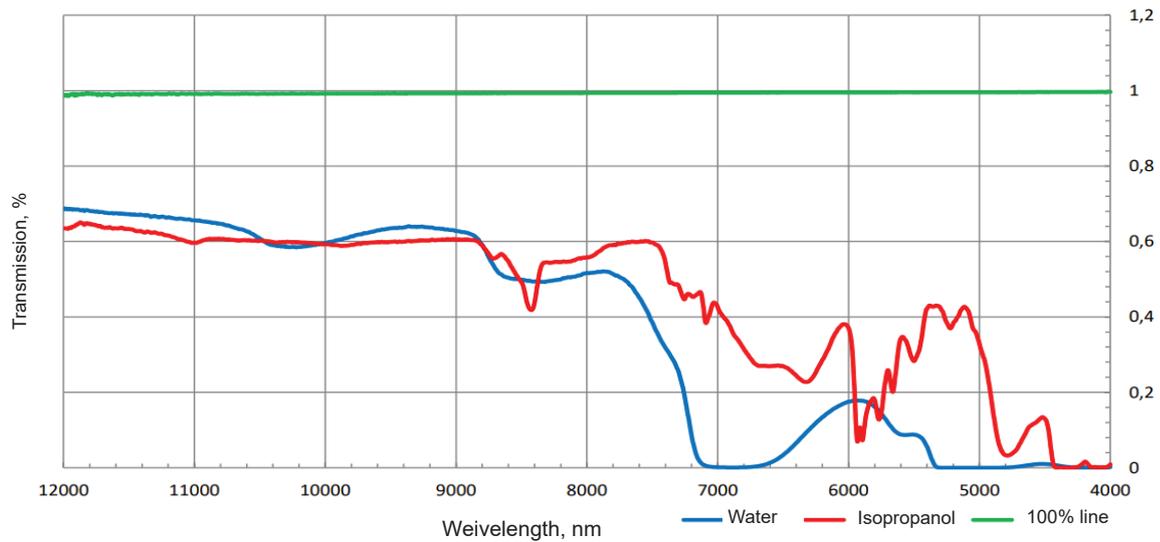
The new generation of Transflection Probes integrates an optimized beam geometry and advanced internal light management design that effectively eliminates straylight within the probe body. This results in:

- True double-pass measurement without parasitic reflections
- Accurate absorbance at high optical densities
- Improved linearity over extended concentration ranges
- Enhanced reproducibility in PAT applications

Applications:

- Reaction monitoring in real time
- Process Analytical Technologies (PAT)
- Crystallization Development & Screening
- Analytical Characterization
- Biopharmaceutical Analysis
- Biofuel Development & Production

Transmission spectra of different samples



FlexiSpec® product line includes the latest generation of Transflexion (dual pass) fiber optic probes to be used with any fiber optic spectrometer or photometer.

FlexiSpec® Dual Pass fiber optic probes are compatible with process-interfaces to be cleanable and to enable reaction monitoring in lab, pilot plant and run full automated process control.

Specification of Fiber Optic Transflexion Probes FlexiSpec®

Fiber type	Silica UV-VIS	Silica VIS-NIR
Operating spectral range	0.2 - 1.3 μm	0.4 - 2.2 μm
Gap (optical path)	Variable (0 - 10 mm)	
Temperature range	$\leq 200^\circ\text{C}$	
Minimum bending radius	120 mm (for 600 μm core fiber)	

Common Parameters of Fiber Optic Transflexion Probes FlexiSpec®

Total Length	2.0 m (opt. 1 - 30 m)	
Shaft Length	200 mm (opt. 50 - 500 mm)	
Shaft Diameter	12 mm	
Shaft Material	Stainless steel, Hastelloy C22	
Protective Tube Material	Liquid Tight SST-Conduit, KOPEX-Tube	
Input / Output Connectors	SMA; FC/PC; ST	

