

Fiber Optic ATR-Probes



art photonics

FlexiSpec[®]

High throughput in any part
of Near & Mid InfraRed-spectrum

ATR-tip shaped for immersion
in liquid flow without dead zone

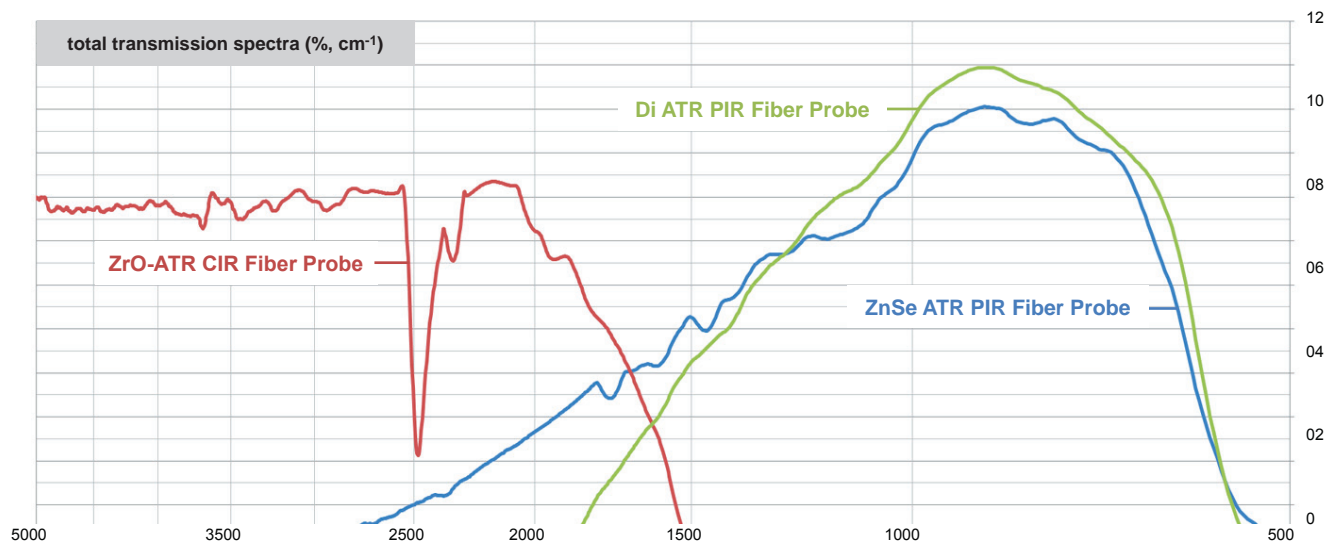
Flexible and robust for industrial
applications in harsh environment

Compatible with all spectrometers
and automated process-interfaces

FlexiSpec[®] product line from **art photonics** is the latest generation of Attenuated Total Reflection Near & Mid IR-fiber ATR-Probes produced for any type of FT-NIR, FT-IR and other IR-spectrometers, photometers and IR-LED or QCL spectral sensors. ATR immersion fiber optic probes with patented design are suitable for reaction monitoring in lab, pilot plant and for full automated process control.

Applications:

- Reaction Monitoring in real time
- Process Analytical Technologies (PAT)
- Remote Polymerization Control
- Crystallization Process Screening
- In-situ IR-Spectroscopy for PAT
in Chemical, Petrochemical, Atomic,
Biopharmaceutical & Food Industry



Specification of Fiber Optic Immersion ATR-Probes *FlexiSpec*[®]

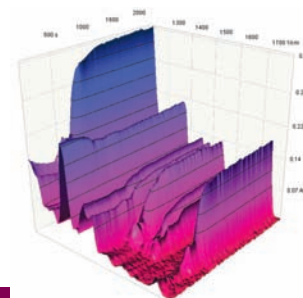
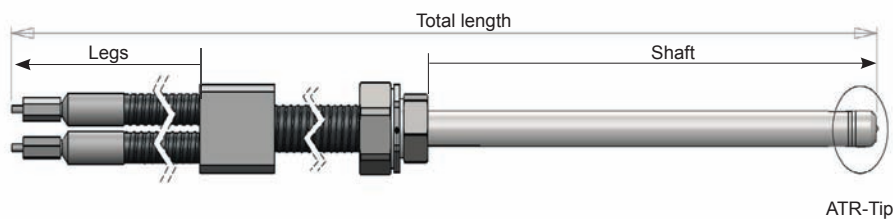
Probe type	Diamond ATR	ZnSe ATR	Cubic Zirconium ATR
Transmission range	5.2-17µm (600-1900cm ⁻¹) + 3.2-4.5µm (2300-3100cm ⁻¹)	3.2-17µm (600-3100cm ⁻¹)	1.5-6.5µm (1550-6650cm ⁻¹)
Fiber type	PIR-900/1000 (AgCl:AgBr)	PIR-900/1000 (AgCl:AgBr)	CIR-500/550 (As-S-glass)
Temperature range	-150°C / + 140°C	-150°C / + 140°C	-150°C / + 90°C
Pressure (max*) *for 12mm shafts	200Bar*	10Bar*	100Bar*

Common Parameters of Fiber Optic ATR-Probes *FlexiSpec*[®]

Total Length	1.5m (opt.: 1m to 5m)*
Shaft Length	230mm (opt.: 100mm to 500mm)*
Shaft Diameter	12mm, 6.3mm (opt.: 3mm)*
Shaft Material	Hastelloy C22
Length of Legs	300mm (opt.: 100mm to 500mm)
Protective Tube Material	Liquid Tight SS-Conduit, KOPEX-Tube
Minimal Bending Radius	130mm
Input / Output Connectors	Long SMA (opt.: any other type)
Compatible Process-Interfaces	Ceramat-FOS** or SensoGate-FOS**



*Customized dimensions are available on request **Available for 12mm shafts only



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