

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

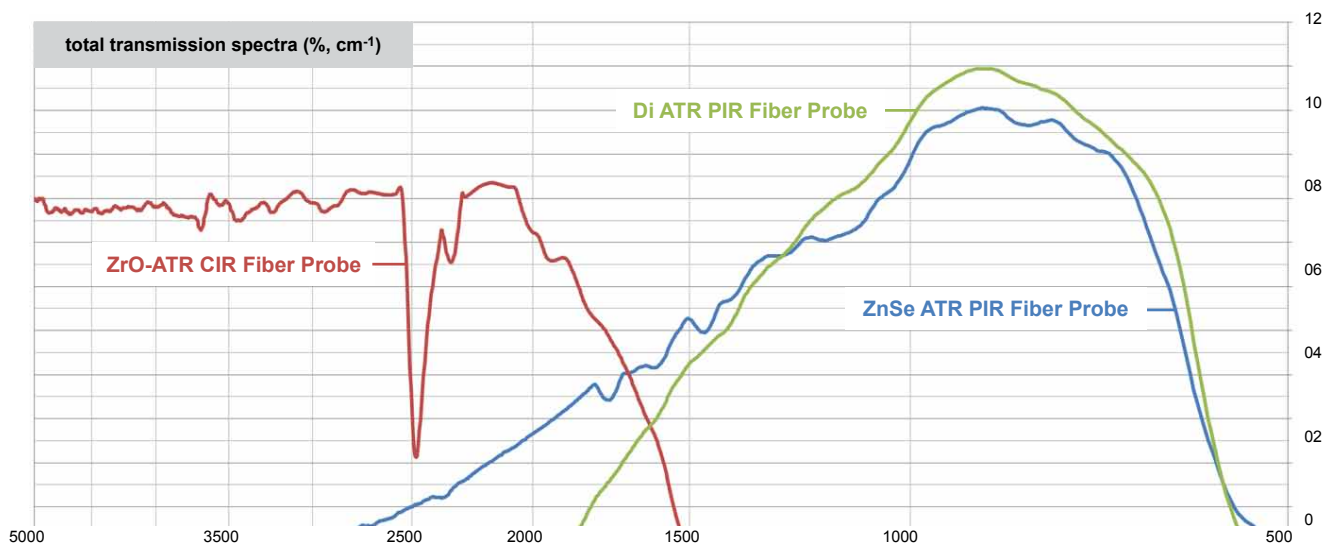
FlexiSpec® product line from **art photonics** is the latest generation of Attenuated Total Reflection Near & Mid IR-fiber ATR-Probes produced for any type of FT-NIR, FT-IR and other IR-spectrometers, photometers and IR-LED or QCL spectral sensors. ATR immersion fiber optic probes with patented design 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

broad spectra fiber solutions

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

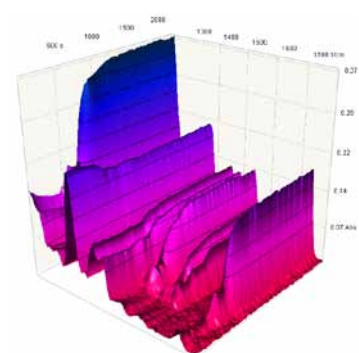
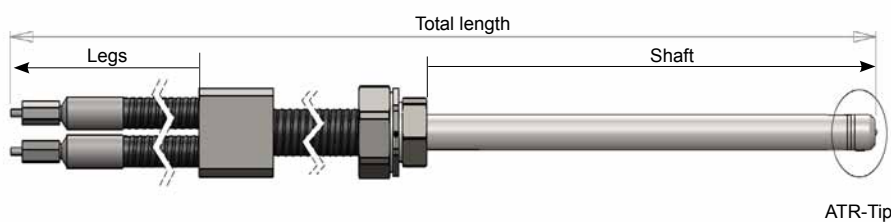
Probe type	Diamond ATR	ZnSe ATR	Cubic Zirconium ATR
Transmission range	5.2-17 μm ($600\text{-}1900\text{cm}^{-1}$) + 3.2-4.5 μm ($2300\text{-}3100\text{cm}^{-1}$)	3.2-17 μm ($600\text{-}3100\text{cm}^{-1}$)	1.5-6.5 μm ($1550\text{-}6650\text{cm}^{-1}$)
Fiber type	PIR-900/1000 (AgCl:AgBr)	PIR-900/1000 (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



Download PDF
via smartphone

art photonics GmbH
Schwarzschildstr. 6
12489 Berlin Germany

Phone + 49 (0) 30 6789 4153
sales@artphotonics.com
www.artphotonics.com

QAS Int. - certified
DIN EN ISO 9001:2008
Zertifikat Nr. A1887GER

