

# Fiber Optic ATR-Probes



**art photonics**

## FlexiSpec<sup>®</sup>

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

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

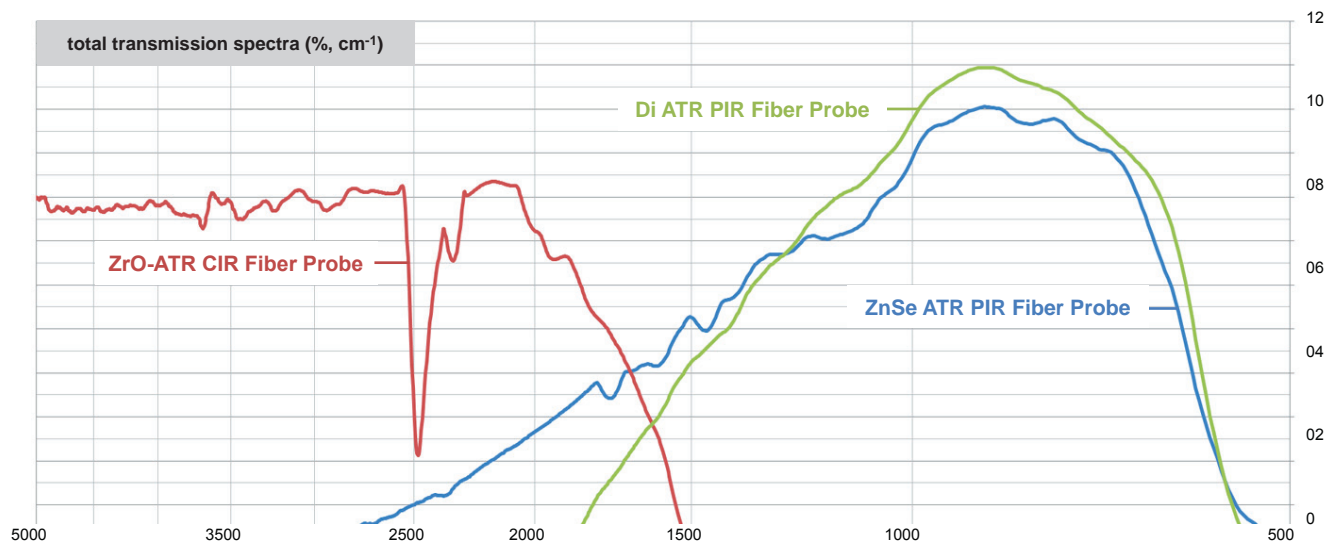
Flexible and robust for industrial  
applications in harsh environment

Compatible with all spectrometers  
and automated process-interfaces

*FlexiSpec<sup>®</sup>* 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*<sup>®</sup>

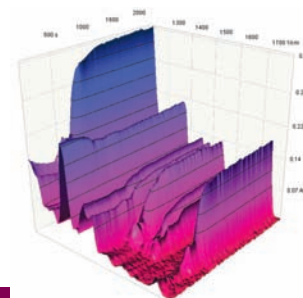
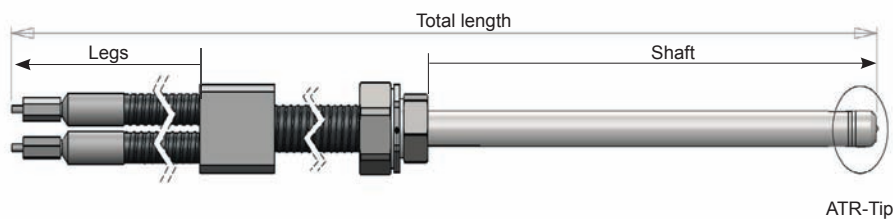
Probe type	Diamond ATR	ZnSe ATR	Cubic Zirconium ATR
<b>Transmission range</b>	5.2-17µm (600-1900cm <sup>-1</sup> ) + 3.2-4.5µm (2300-3100cm <sup>-1</sup> )	3.2-17µm (600-3100cm <sup>-1</sup> )	1.5-6.5µm (1550-6650cm <sup>-1</sup> )
<b>Fiber type</b>	PIR-900/1000 (AgCl:AgBr)	PIR-900/1000 (AgCl:AgBr)	CIR-500/550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

### Common Parameters of Fiber Optic ATR-Probes *FlexiSpec*<sup>®</sup>

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



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



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