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®**

<table>
<thead>
<tr>
<th>Probe type</th>
<th>Diamond ATR</th>
<th>ZnSe ATR</th>
<th>Silicon ATR</th>
<th>Cubic Zirconium ATR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission range</td>
<td>5.2-17µm (600-1900cm⁻¹)</td>
<td>3.2-17µm (600-3100cm⁻¹)</td>
<td>3.2-17µm (600-3100cm⁻¹)</td>
<td>1.1-6.5µm (650-9000cm⁻¹)</td>
</tr>
<tr>
<td>Fiber type</td>
<td>PIR-900/1000</td>
<td>PIR-900/1000</td>
<td>PIR-900/1000</td>
<td>CIR-500/550</td>
</tr>
<tr>
<td>Temperature range</td>
<td>-150°C / + 140°C</td>
<td>-150°C / + 140°C</td>
<td>-150°C / + 140°C</td>
<td>-150°C / + 90°C</td>
</tr>
<tr>
<td>Pressure (max)</td>
<td>200Bar, 300 Bar on request</td>
<td>10Bar</td>
<td>100Bar</td>
<td>100Bar</td>
</tr>
</tbody>
</table>

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

- Total Length: 1.5m (opt.: 1m to 5m)*
- Shaft Length: 300mm (opt.: 100mm to 700mm)*
- Shaft Diameter: 12mm, 6.3mm (opt.: 3mm)*
- Shaft Material: Hastelloy C22
- Length of Legs: 500mm (opt.: 200mm 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 on request