

Fiber Optic ATR-Probes Overview



| Mid-IR ATR Probes | PIR fiber 900/1000, 30cm shaft Hastelloy C22, 150cm total, LTP conduit with SMA 905 connectors | | PIR fiber 900/1000, 15cm shaft PEEK, 150cm total, PEEK protective tubing with SMA 905 connectors | | PIR fiber 900/1000, 30cm shaft Hastelloy C22, 200cm total, LTP conduit with SMA 905 connectors, air flow cooling | | PIR fiber 900/1000, 30cm shaft, 150cm total, LTP conduit with SMA 905 connectors, detachable fiber | |
|--|---|-----------------------|--|--|--|-----------------------|--|-----------------------|
| Design | Standard | | PEEK Lab | | High Temperature | | Sterilizable | |
| Shaft Ø | Ø 6,3mm | | Ø 12mm | | Ø 6,3mm | | Ø 12mm | |
| ATR crystal | Ø 6,3mm | | Ø 12mm | | Ø 6,3mm | | Ø 12mm | |
| Diamond, 600-1900cm ⁻¹ | 200Bar, -150°C +140°C | 200Bar, -150°C +140°C | | | 200Bar, -150°C +250°C | 200Bar, -150°C +140°C | 200Bar, -150°C +140°C | 200Bar, -150°C +140°C |
| Si 600-3100cm ⁻¹ | 100Bar, -150°C +140°C | 100Bar, -150°C +140°C | 7Bar, -100°C +140°C | | 100Bar, -150°C +250°C | 100Bar, -150°C +140°C | 100Bar, -150°C +140°C | 100Bar, -150°C +140°C |
| Ge, 600-3100cm ⁻¹ | 10Bar, -150°C +80°C | 10Bar, -150°C +80°C | 7Bar, -100°C +80°C | | | 10Bar, -150°C +80°C | 10Bar, -150°C +80°C | 10Bar, -150°C +80°C |
| ZnSe, 600-3100cm ⁻¹ | | 10Bar, -150°C +140°C | 7Bar, -100°C +140°C | | 10Bar, -150°C +250°C | | | |
| ZrO2 with CIR 500/550 fiber, 1550-9000cm ⁻¹ | 100Bar, -150°C +90°C | 100Bar, -150°C +90°C | 7Bar, -100°C +90°C | | 100Bar, -150°C +200°C | 100Bar, -150°C +90°C | 100Bar, -150°C +90°C | 100Bar, -150°C +90°C |
| Detachable Loop | PIR fiber 900/1000, 10cm shaft PEEK, 110cm total, PEEK tubing with SMA 905 connectors, 600-2500cm ⁻¹ , -50°C +90°C Disposable ATR-Loop Tip | | | | | | | |
| | CIR fiber 500/550, 10cm shaft PEEK, 110cm total, PEEK tubing with SMA 905 connectors, 1550-6500cm ⁻¹ , -50°C +90°C Disposable ATR-Loop Tip | | | | | | | |

Chemical resistance of ATR crystals:

Diamond: stable in any liquid; prior to operating, check restriction for use of PEEK (sealing material).

Silizium: pH = -1÷10

Germanium: pH= 1÷14 (without oxidizing agents in alkalies)

ZnSe: pH = 5÷9; note, that some complexing agents can damage the crystal.

ZrO2: any medium, prior to operating, check restriction for use of PEEK (sealing material).

Check the chemical compatibility of ATR crystals with medium if you have any doubts. We are always ready to answer your questions.