• **ALPHA** FT-IR Spectrometer

Specifications

Spectral range:	375 – 7,500 cm^{-1}, with standard KBr beamsplitter 500 – 6,000 cm^{-1}, optional with „High Humidity" ZnSe optics
Signal-to-noise ratio:	typically >50,000:1 (1 min measurement time, spectral resolution 4 cm^{-1})
Spectral resolution:	better than 2 cm^{-1}, optional better than 0.8 cm^{-1} resolution freely adjustable from 0.8 cm^{-1} to 256 cm^{-1}
Wavenumber accuracy:	<0.05 cm^{-1} @ 2,000 cm^{-1}
Wavenumber precision:	<0.0005 cm^{-1} @ 2,000 cm^{-1} (SD of 10 repeat measurements)
Photometric accuracy:	better than 0.1% T
Temperature stability 100% line:	<1% per °C
Interferometer:	RockSolid™, permanent aligned, high stability
Optics:	Sealed and desiccated, all mirrors gold coated
Detector:	High sensitivity DLATGS, room temperature
A/D converter:	True 24 bit dynamic range
Validation:	IVU internal validation unit, automated OQ/PQ test and protocols, automated test according to European Pharmacopoeia, Chapter 2.2.24 (optional) 21 CFR Part 11 compliance

Innovation with Integrity

FT-IR

Accessory recognition:	Automatic accessory recognition, automatic performance test and automatic setting of appropriate measurement parameters
Available measurement	Transmission: KBr pellet holder, variety of liquid techniques:and gas cells ATR: diamond, ZnSe and Ge crystals, flow through cells, heatable crystal plate Diffuse Reflection, Specular Reflection, Reflection with video-option
Computer interface:	Ethernet, remote control via W-LAN (option, e.g.for use in glove box)
Operating system:	Windows XP, Windows 7
Spectrometer power:	100 - 240 VAC, 50 - 60 Hz, 20 W (low energy consumption)
Mobility:	Rechargeable battery pack, car battery connector, slate tablet PC
Dimensions:	ATR (ALPHA-P): 22 x 33 x 26 cm (w x d x h) Transmission (ALPHA-T) 22 x 31 x 14 cm (w x d x h)
Weight:	7 kg

Software:

OPUS/Mentor is designed to save valuable analysis time. An intuitive wizard guides the user through the analysis procedure, from measurement via data treatment and evaluation to the final documentation.
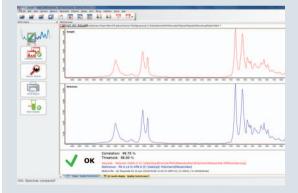
OPUS/Mentor includes:

- Step-by-step wizard
- Online help
- Multimedia FT-IR tutorial
- Measurement control
- Data pre-processing routines
- Peak labelling
- Spectra comparison methods
- Spectra interpretation tool
- Library search
- Free starter library with more than 350 spectra
- User specific library set-up
- Quantification method (Lambert-Beer's Law)
- Peak integration function (area, height)
- Automation capabilities
- Macro functionality
- Lab journal
- Predefined print layouts, customizable print layouts
- Easy data export to other programs
- Automated instrument test routines for OQ and PQ
- Permanent display of instrument status
- Multi level user management, user log-in
- GMP/GLP compliance, Audit trail

OPUS/Mentor

Easy to Use

The ALPHA makes FT-IR analysis simpler than it has ever been before. The OPUS/Mentor software, with its easy and intuitive user interface, guides the operator through all the steps of an analysis. The user interface can easily be customized for dedicated applications or experiments.

OPUS/Mentor makes your daily quality control just a few clicks.

Bruker Optics is ISO 9001 certified.

Laser class 1 product

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