

Vertex 80v vacuum FTIR spectrometer
Terms and conditions:

Warranty: 12 months after installation
 Manufacturer: Bruker Optik GmbH
 Country of origin: Federal Republic of Germany

#	Qty	Description	Cur.	Price
1.	1	<p>V80V Infrared Fourier Vacuum Spectrometer VERTEX 80v Powerful vacuum FT-IR spectrometer for demanding R and D application in the standard spectral range from 8,000 to 350cm⁻¹. The following for the operation required components are included in the basic system price:</p> <ul style="list-style-type: none"> - MIR-KBr beamsplitter (T303/8) - Room temperature DLaTGS detector (D301/B) - High power IR source - Aperture wheel with 12 positions - Validation wheel with 6 positions - Vacuum optics bench with oil-free vacuum pump - OPUS/IR software package <p>The UltraScan- interferometer use the active TrueAlignmentTM technology within the scanning arm of the interferometer which provides optical peak performance. The VERTEX 80v is prepared to extend the measurement spectral range optionally to the very far IR as well as to the near IR, visible and UV spectral range (50,000cm⁻¹ to 5cm⁻¹). The standard spectral resolution is better than 0.2cm⁻¹, as option better than 0.06cm⁻¹ is available with a resolving power of >300,000:1 in the visible range. Rapid Scan with more than 65 spectra/sec at 16cm⁻¹ spectral resolution is standard.</p> <p>As options higher scanning rates with >110 spectra/sec and Step-Scan data acquisition are available. See document "Vertex 80v Specification and Options" for detailed description of the instrument specification.</p> <p>For control of the spectrometer optics and signal processing a PC-based data system which might be quoted below is required (we recommend to order the data system with the spectrometer optics in order to make sure that the system performs flawlessly). The</p>	Kč	2.873.442,-

		requirements for a suitable the data system are available on request.		
2.	1	D313-L/B MCT detector, narrow band, BaF2-window Liquid N2 cooled Spectral range: 12,000-850cm-1 D*: >4x10**10cm Hz1/W Hold time: typically 24h; Integrated amplifier and digitization electronics Required: - D100-L/x Detector cover - For INVENIO: W105/I additional digitect detector position or accessory/external module with suitable digitect detector position. - For VERTEX: W105/Z switchable detector position D2 Recommended accessory: D126 evacuation valve	Kč	269.841,-
3.	1	W105/Z Unit for selecting an additional IR detector in position 2 (without detector) Required for liquid N2 cooled detectors with hold time of 12h: - D100-x/Z for VERTEX 70/80 - D100-M/8V for VERTEX 80v/70v	Kč	78.364,-
4.	1	D100-L/8V Detector compartment cover for liquid N2 cooled detectors with 24h hold time	Kč	42.414,-
5.	1	S125/8V High-resolution scanner option for spectral resolution better than 0.06cm-1 (Must be ordered with initial system purchase.) For VERTEX 80 Spectrometer series.	Kč	136.222,-
6.	1	W163/V Window flanges (2 pieces) for permanent sealing of the sample compartment (without windows; for windows see F131-x) Note: Not compatible with the automatic shutter W160/8v	Kč	13.757,-
7.	2	F131-5 KBr window, 49.5mm diameter for window flange W162/V, W163/V or W162/8V	Kč	12.069,-
Software and PC				
8.	1	O/IR8+ OPUS/IR, FT-IR Spectroscopy Software Package version 8: newest released OPUS version 8.x for this spectrometer type. OPUS is integrated software for the acquisition, processing,	Kč	0,-

	<p>evaluation and reporting of IR-spectroscopic data in laboratory and process environments and is compliant with cGMP/GLP/GAMP regulations such as 21 CFR Part 11 and the FDA data integrity guideline.</p> <p>OPUS is easy to use:</p> <ul style="list-style-type: none"> - Configurable user interface and access to executable functions - Automatic consistency-test of measurement parameters - Multi Tasking: Measurement and data manipulation/evaluation at the same time - Step-by-step analysis assistant for quality control applications <p>OPUS delivers reliable measurement results in a short time:</p> <ul style="list-style-type: none"> - Single and repeated measurements - Auto sampler support <p>OPUS provides versatile functionality for efficient data analysis:</p> <p>1.) Interactive functions for comfortable data processing, such as</p> <ul style="list-style-type: none"> - Automated atmospheric correction for water vapor and CO₂ in MIR without the need for reference spectra - Normalization, baseline correction, derivative calculation and spectra subtraction - Averaging of spectra - Spectrum calculator <p>2.) Wide range of data evaluation methods for generation of clear results, e.g.:</p> <ul style="list-style-type: none"> - Single and multiple peak picking, interactive and automated modes - Spectra comparison method for material verification - Library search for material identification, User specific library set-up - Free starter libraries - Spectra interpretation tool - Analyze peak areas and heights, quantitative analysis (Lambert-Beer's Law) - Automated multi-step and multi-method evaluation of spectra (MultiEvaluation) <ul style="list-style-type: none"> - Curve fit <p>3.) Easy-to-use tools for reporting and data exchange</p> <ul style="list-style-type: none"> - Analytical report generation with predefined print layouts, customizable - Easy export of spectral data and evaluation results to other programs - Option to store spectral data and evaluation results either in an internal or a user-defined database <p>OPUS is validated software and supports the validation of the spectrometer:</p> <ul style="list-style-type: none"> - Fully automated test routines for operational and performance 		
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		qualification (OQ, PQ) - Permanent instrument status indicator, online monitoring of system performance OPUS is compliant with cGMP/GLP: - Multi level user management, log-in with user name and password, separated administrative and measurement /evaluation functionality - Audit trail (history log function) of system and user, spectra, measurement parameters and evaluation methods - Data integrity mode (ALCOA principle) with protected data pool (OPUS/VALIDATION required) - All data, incl. manipulation and evaluation results, stored in ONE file - Electronic signature of spectra and methods; 21 CFR Part 11 compliance (OPUS/VALIDATION required) OPUS supports user during daily routine work: - Run, create and edit macros and VB scripts - Automated execution of repeated actions via calendar - Lab journal functionality - Online help - Multimedia FT-IR tutorial This OPUS software package is included in the standard delivery of the spectrometer system.		
9.	1	CS81/27+ Data System, High-Performance Specifications: - Intel i7 processor, >3 GHz Turbo - 16GB RAM - 256GB SSD or better - 1TB Hard Drive or better - CD/DVD writer - 23.8" min. TFT display - 2 or more USB 3.0, 4 or more USB 2.0 (or better); 2x RJ-45 Network; 1 Serial; 1 VGA; 2 DisplayPort; Line-in (stereo/microphone), Line-out (headphone/speaker), 2 or more PCIe - Operating System: Windows 10 Enterprise (only available with order of spectrometer)	Kč	56.857,-
Others				
10.	1	S881 Warranty Extension to 10 Years for Interferometer Covers material costs on the replacement of defective parts of the scanning mechanism of the interferometer. The warranty starts with	Kč	0,-

		delivery of the spectrometer.		
11.	1	Installation, training of users	Kč	28.000,-
12.	1	Packaging, transport	Kč	14.000,-
Cena Celkem bez DPH			Kč	3.429.791,-
DPH 21 %			Kč	720.256,-
Cena celkem vč. DPH			Kč	4.150.047,-

Optik Instruments s.r.o.