

# Wolf Laboratories

Tel: 01759 301142 Fax: 01759 031143 Email: sales@wolflabs.co.uk Website: [www.wolflabs.co.uk](http://www.wolflabs.co.uk)

## Fourier Transform Infrared Spectrophotometer FTIR-8400S

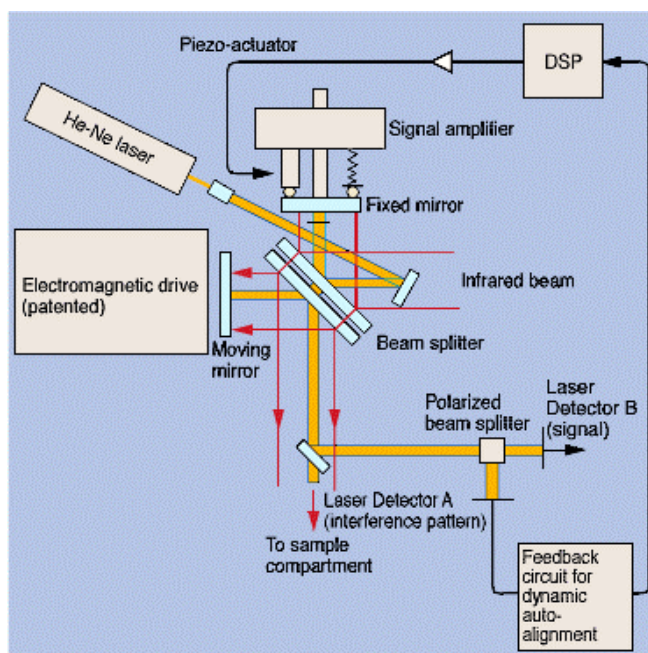


Shimadzu was the first company to offer dynamic alignment as a standard feature in an affordable FTIR spectrometer. With state-of-the-art technology, the Shimadzu dynamic alignment system continuously maintains optimal alignment during data acquisition, ensuring consistently reproducible spectra without the need for tedious mechanical adjustments.

FTIR-8400S is combined with the IRsolution - a 32 bit high performance FTIR software - to analyze your samples easily and securely.

### Dynamic alignment ensures reproducibility by maintaining optimum alignment

Highly precise control of the moving mirror is required to stabilize the interferogram of the FTIR instrument. The FTIR-8400S includes the patented FJS system - very smooth and precise moving mirror unit - and the Dynamic Alignment system to optimize and stabilize the interferometer unit. FTIR-8400S requires only a short stabilization time and is very secure.



### Dynamic Alignment (Patented)

This System monitors the interferometer condition of He-Ne laser and compares it with that of optimized conditions. Any detected discrepancies by DSP system are corrected by automatic alignment of the piezo actuators at the fixed mirror.

### The Dynamic Alignment Advantage

Optimal interferometer alignment is maintained automatically for continuous optimization and exceptional reproducibility.

### The Signal-to-Noise Advantage

Peak-to-Peak S/N ratio is 20,000:1 or better, guaranteed!

### The Simplicity Advantage

New FTIR operators will love the quick-start function that prompts the user through every action from setting scan parameters and acquiring the spectrum, to detecting peaks and printing.

### The IRsolution Advantage

Powerful IRsolution software offers a myriad of standard data processing functions. The management of User group, protection by user name/password, Operation log recording, and Electric Signature supports the FDA 21 CFR Part 11.<sup>(note)</sup>

### The Validation Advantage

The software validates instrument performance to ensure compliance based on Japanese/European Pharmacopoeia and ASTM. The instrument and data reliability are ensured by GLP/GMP and FDA 21 CFR Part 11 compliance.

(note) IRsolution Agent software is needed to fully comply to FDA 21 CFR Part 11 regulation.

## Specifications

Interferometer	Michelson type with 30° incident angle,dynamic alignment,sealed and desiccated
Optical system	Single beam optics
Beam splitter	Germanium-coated KBr plate
Light source	High brightness ceramic
Detector	Temperature controlled high sensitivity detector(DLATGS detector)
S/N ratio	Greater than 20,000:1(KRS-5 window,4cm <sup>-1</sup> ,1 minute,2200cm <sup>-1</sup> ,P-P)
Wavenumber range	7,800cm <sup>-1</sup> -350 <sup>-1</sup>
Resolution	0.85,1,2,4,8,16cm <sup>-1</sup>
Mirror speed	3 steps;2.8,5,9mm/sec
Data sampling	He-Ne laser
Sample compartment	W200mm x D230mm x H170mm
Data processing functions	Arithmetic operation between spectrum and constant,Arithmetic operation among spectra,Spectral subtraction,Peak detection,Smoothing,Derivative,Baseline correction,Data correction,Normalization,Kubelka-Munk conversion,Kramers-Kronig analysis,ATR correction
Optional programs	PLS quantitation,Curve fitting,Mapping,Macro platform
Validation programs	Compliance to Japanese/European Pharmacopoeia and ASTM
GLP/GMP	Operation log recording,Software protection by user name/password, Management of user level
FDA 21 CFR Part 11 <sup>(note 1)</sup>	Electronic signature,Data manipulation history recording,Saving of measured interferogram/background spectrum/manipulated spectra
Ambient conditions	15-30°C Less than 70%
Power requirement	AC100/120/220/230/240V 50/60Hz 160VA <sup>(note2)</sup>

(note1)IRsolution Agent software is needed to fully comply to FDA 21 CFR part11.

(note2)PC requires additional power.