

## M400PC Functional Specifications

### Quantitative Analysis

Concentration by peak height, peak area, corrected peak height, peak area. Single point linear and multi-point non-linear (polynomial) calibration.

Analysis of mixtures by MLR (multiple linear regression) and PLS (partial least squares)

### Colour Measurement Calculations

Calculation of CIE, Lab and Luv and many more.

Display of Chromaticity diagram

### Data Manipulation

Derivatives, smoothing, spectral subtraction, data reduction and interpolation, automatic and manual peak labelling, peak splitting.

### Automation and Customisation

Built-in SBASIC language to create macros.

### Graphics

Display & overlay up to 50 spectra.

Zooming, cursor, manual and autoscaling, pre-defined display ranges, 3D display of spectra.

### Printing

Report preparation with page set-up utility.

## Technical Specifications (with fibre optics)

Wavelength Range	220 to 820nm
Optical System	Single beam
Grating	Concave holographic
Detector	Diode Array
Optical bandwidth	2nm
Wavelength accuracy	$\pm 2\text{nm}$ 220-820nm
Wavelength reproducibility	$< \pm 0.05\text{nm}$
Integration time (full spectrum)	50 to 2,500 milliseconds
Absorbance range	0 to 2.5A
Photometric accuracy	$< \pm 1\%$ @ 0.5, 1, 2A
Stray light	$< 1\%T$ , 230-820nm
Zero drift	$< 0.003A$ per hour
Noise	$< 0.001A$ @ 0A, 220-820nm
Source lamps	Deuterium, Tungsten-Halogen
Fibre optic cables	600 micron dia. 2M length or Option
Dip probe pathlength options	2-50mm
Cell holder accessory with cables	1mm to 10mm or 1mm to 50mm pathlength
Weight	4.5 kilos
Dimensions (WxDxH)	350x300x135mm

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