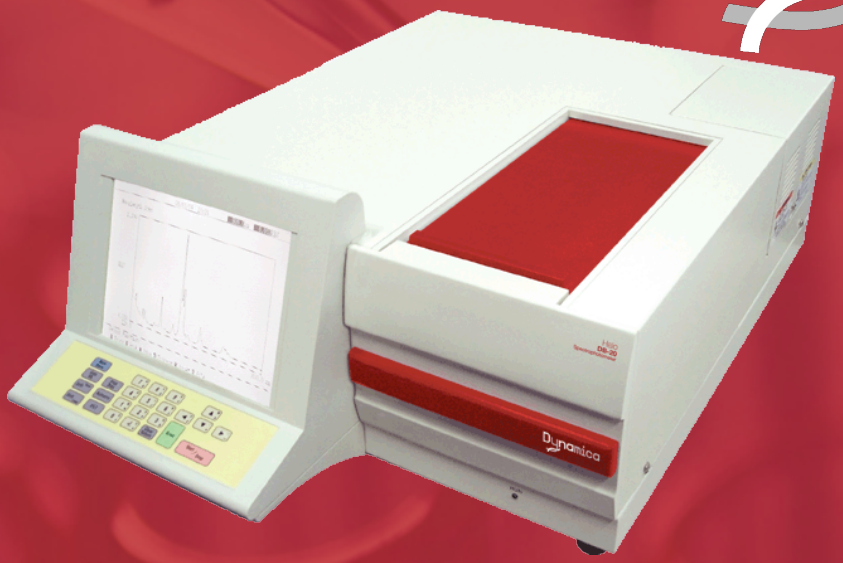
Dynamica

designed in Australia



HALO DB-20

UV-VIS Double Beam Spectrophotometer

High Accuracy, Flexibility and Outstanding Performance

The Halo DB-20 is a high performance double beam spectrophotometer suitable for many analytical applications where a higher level of accuracy is required.

True double beam optics ensure concurrent measurement of the sample and reference for improved stability, accuracy and reproducibility.

A wide range of accessories makes the DB-20 suitable for all Spectroscopy applications.

Powerful UV Detective PC Control

In addition to the onboard software, the Halo DB-20 can be PC controlled using the UV Detective software (optional). Refer the rear page for further details on the UV Detective software. UV Detective can also operate optional accessories such as the sample sipper and 6-cuvette holder.

The UV Detective software is powerful but user friendly depicted in the process flow below:

1. Select Function (e.g. Photometry)
2. Set Method Parameters
3. Auto-zero or Baseline
4. Sample test
5. Data processing
6. Report Generation

- Spectral Range: 190 - 1100nm
- Bandwidth: 1.5nm
- Low Stray Light: 0,05% (220nm NAI, 340nm NaNO2)
- Kinetic readings from 1 min to > 27 hrs
- Onboard software
- Onboard data storage (20 programs, 10 sets of data)
- GMP/GLP Validation Routines onboard
- Wide Range of Accessories
- UV-Detective PC Software Package (optional)
- USB stick for external data storage (included)

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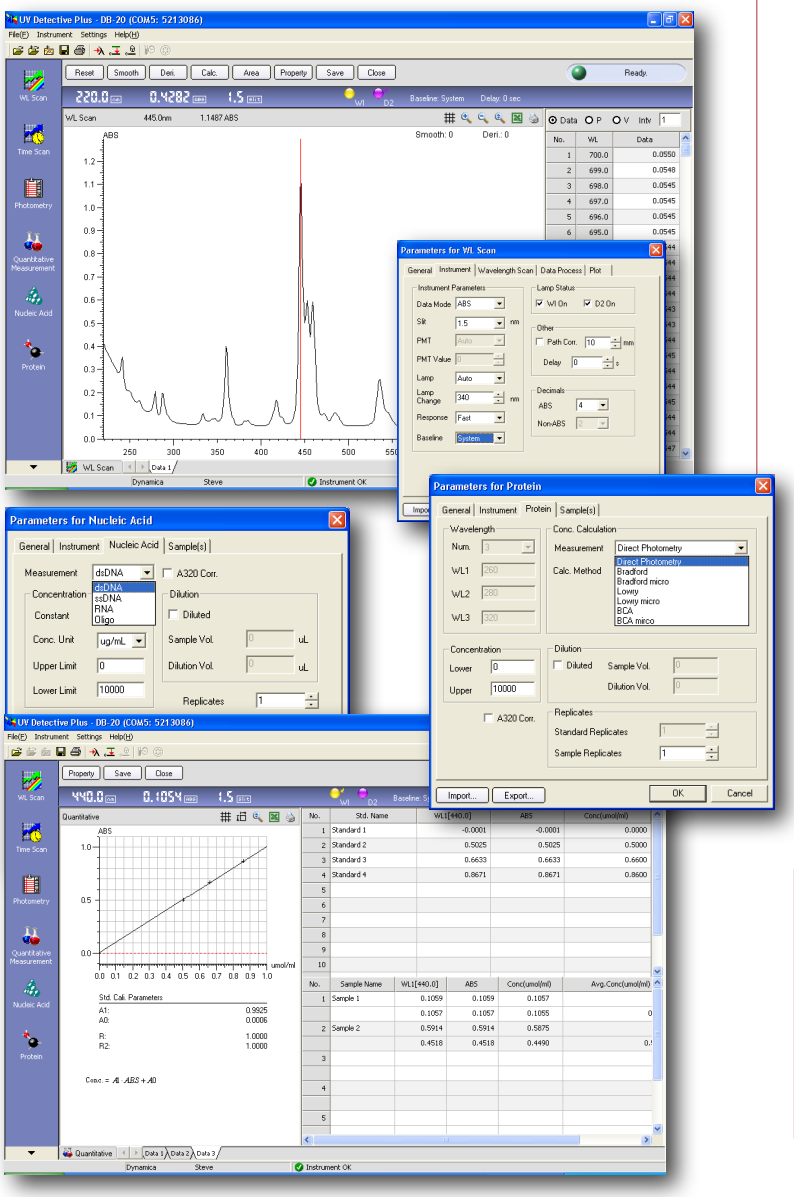
UV Detective PC Software Package (optional)

UV Detective™ is Dynamica's powerful, user friendly PC software specifically designed for the control (and data processing) of selected Halo spectrophotometers from computers installed with the Windows® XP Pro and Vista operating system.

The versatile UV Detective can control all spectrophotometer operations such as photometry, wavelength scans, time scans and more. Further functions include storage of methods programs, saving of numerical and graphical data, downstream data processing, data transfer to commercial spreadsheets such as Microsoft® Excel and report generation.

Compatible Spectrophotometers	Halo RB-10 (optional), Halo DB-20 (optional), Halo DB-30 (standard)
Control Functions	Wavelength setting, auto-zero, auto calibration, optical path calibration, accessories such as 6-cuvette positioner and sipper
Measurement Conditions	Start-up, setting, output and storage of measurement parameters
Measurement Function	Wavelength scan, time scan, quantitative analysis, multi-spectrum measurement, kinetic analysis, concentration measurement, nucleic acid / protein measurements
Data Output	Display of spectra, data and scans (time and spectrum)
Quantitative Methods	Multi-wavelength, input of constant, standard curve calibration (linear, quadratic, cubic and segment)
Data Processing	Integral, derivative, flatness, calculation (spectrum and constant), kinetic



HALO DB-20 Accessories (please see main catalog or website for full details)

- Rectangular Long-Path Cuvette Holder
- Cylindrical Long-Path Cuvette Holder
- Thermostatic Cuvette Holder
- 5-Cuvette Holder / Changer
- 6-Cuvette Holder / Changer (with electronic temperature control)
- 6-Cuvette Holder / Changer (without electronic temperature control)
- Micro-cuvette Holder
- Auto Sample Sipper (without temperature control)
- Auto Sample Sipper (with temperature control)
- Micro Flow Cuvette Holder
- Glass Sample Holder
- Film Sample Holder

HALO DB-20 Specifications

Optics	Concave diffraction grating / Double Beam
Wavelength Range	190nm - 1100nm
Spectral Bandwidth	1.5 nm
Stray Light	< = 0.05%T (220nm NaI, 340nm NaNO2)
Wavelength Accuracy	±0.3nm
Wavelength Repeatability	±0.1nm
Setting Wavelength	0.1nm increments
Photometric Accuracy (NIST 930D filter)	±0.002Abs (0~0.5Abs) ±0.004Abs (0.5~1Abs) ±0.008Abs (1~2Abs) ±0.3% T
Photometric Repeatability (NIST 930D filter)	±0.001Abs (0~0.5Abs) ±0.002Abs (0.5~1Abs) ±0.004Abs (1~2Abs) ±0.15% T
Measurement Mode	Abs, %T, Concentration
Photometric Range	Absorbance: -3 to +3
	%T: 0% to 600%T
	Conc: 0,000 ~ +9,999
Wavelength Scan Speed	10, 100, 200, 400, 800, 1200, 2400, 3600 nm/minute
Baseline Flatness	±0.002Abs (200~950 nm)
Baseline Stability	0.0003 Abs/hr (500nm, after 2 hours)
Noise Level	±0.0003 Abs (500nm)
Light Source	Tungsten-Halogen and Deuterium Lamps
Light Source Switching	Automatic switching, selectable from 325nm to 370nm
Detector	Silicon Photodiode
Instrument Control	Onboard software or via PC with Windows® XP Pro operating system
Printer connection	PCL/3, ESC/P oder DPU
Dimensions / Weight	500(W) x 705(D) x 225(H) mm / 29kg (net), 35kg (gross)
Power Requirements	110 - 220V AC and 50/60Hz (switchable), 200VA

Presented by:

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