

## 72 Series Spectrophotometers

The 72 series spectrophotometers are ideal for applications in education and routine testing in clinical, veterinary, pharmaceutical and QC laboratories.

### Key Features

- Scanning diode array technology
- Colour touchscreen navigation
- Small footprint and lightweight
- Fast scan speed
- English, French and German language options
- Multiple USB ports for data storage and printer connectivity
- Extensive range of accessories available
- 2 year warranty



### Diode Array Technology

The benefits of diode array technology include very fast scanning with the ability to scan the entire wavelength range of 198 to 800nm in less than 3 seconds (7205), which is ideal for fast chemical reactions and denaturing materials. Traditional spectrophotometers use stepper motors to select the required wavelength. With diode array technology each wavelength is selected by electrical scanning, which results in excellent wavelength reproducibility. Diode array optics are very reliable and require very little maintenance.

Due to the reversed optic structure utilised by the 72 series, they are not affected by ambient stray light so experiments can be performed with the lid open. This is ideal for samples in tall test tubes, or where fast access is required for kinetics experiments, where the prompt introduction of the reaction component is required.

With diode array technology each time a measurement is performed the absorbance is recorded across the entire wavelength range regardless of the wavelength selected. Therefore if a sample is measured incorrectly at 555nm instead of 550nm, there is no need to perform another blank and measure the sample again. Adjusting the wavelength range to the desired wavelength will automatically display the photometric results at that wavelength, saving valuable time.

## Technical Specification

Model	7200	7205
Wavelength range	335 to 800nm	198 to 800nm
Accuracy	± 2nm	± 2nm
Repeatability	± 2nm	± 2nm
Spectral bandwidth	7mm	5mm
<b>Photometrics</b>		
Transmittance	0 to 199.9%	0 to 199.9%
Absorbance	-0.300 to 2.500A	-0.300 to 2.500A
Accuracy	± 0.01A at 1.0A and 546nm	±0.01A at 1.0A and 546nm
Stability (A)	± 0.005A/h at 0.04A and 546nm after 60 min warm-up	±0.005A/h at 0.04A and 546nm after 60 min warm-up
Noise	± 0.002A at 0.04A and ± 0.02A at 2.0A and 546nm	± 0.002A at 0.04A and ± 0.02A at 2.0A and 546nm
Stray Light at 340nm, %T	<1%T according to ANSI/ASTM E387-72	<1%T according to ANSI/ASTM E387-72
<b>Concentration</b>		
Range	± 2500	± 2500
Calibration	Blank with a single standard or factor	Blank with a single standard or factor
Factor	± 1000	±1000
Standard	± 1000	± 1000
<b>Optical Density</b>		
Factor	± 1000	± 1000
<b>Quantitation</b>		
Range	± 2500	± 2500
Calibration	Blank with up to 6 standards	Blank with up to 6 standards
Curve fit algorithms	Linear and linear through zero	Linear and linear through zero
<b>Kinetics</b>		
Measurement Time	15 to 9999 seconds	7 to 9999 seconds
Number of wavelengths	3	3
Calibration	Blank with a factor	Blank with a factor
Display	Graphical and concentration	Graphical and concentration
Analysis	Concentration	Concentration
<b>Spectrum</b>		
Range	335 to 800nm	198 to 800nm
Analysis	Absorbance or % transmittance and up to 50 spectral analysis points	Absorbance or % transmittance and up to 50 spectral analysis points
<b>Other</b>		
Beam height	15mm	15mm
Light source	Tungsten Halogen lamp	Xenon lamp
Results memory	Limited by attached storage device	Limited by attached mass storage device
Removable media	USB (not supplied)	USB (not supplied)
Outputs	USB x 2	USB x 2
Supply voltage/frequency	100 – 240VAC at 50 to 60Hz	100 – 240VAC at 50 to 60Hz
Power	12V DC, 3.8A	12V DC, 3.8A
Size (w x d x h)	212 x 422 x 120mm	212 x 422 x 120mm
Weight	2.8kg	2.8kg
Warranty	2 years on the instrument, 1 year on the lamp	2 years on the instrument including the lamp