



# T110+/T112+

UV-VIS SPECTROPHOTOMETER

The T110+/T112+ Series Spectrophotometer incorporates dual monochromator technology making it well suited to even the most demanding of applications in all areas of UV-Visible Spectroscopy including:

- Pharmaceutical
- Material Science
- Metrological Verification
- Biotechnology
- Food Safety
- Research



Wireless instrument control and data acquisition can be achieved from a Tablet PC using Wi-Fi technology allowing the analyst to move freely around the laboratory whilst also keeping track of sample measurements.



The optical design of both the **T110+** and **T112+** offer extremely low stray light characteristics ( $\leq 0.00004\%T_{NaI, 220\text{ nm}}$ ) which allows for an extensive photometric range (-8.0 – 8.0Abs). Measurements at deep ultra-violet wavelengths can also be achieved with use of Nitrogen purged optics. The instrument can be optically configured to suit the needs of the sample by means of a continually adjustable slit for precise control of spectral resolution and beam size adjustment by means of an attenuating wheel. Precise wavelength accuracy is ensured by the integrated Mercury Emissions Lamp used for automatic correction of spectral deviation.

A whole host of specialised accessories are available to suit the specific requirement of the sample, these include:

- Both 60mm and 150mm Integrating Sphere for Diffuse reflectance measurements.
- Absolute, and Specular reflectance measurements accessories.
- Polarizing Optics.
- Thermostatic Cell Holders for temperature control.
- Various long and short pathlength cell holders.
- Automated cell changers for both sample and reference beams.
- Tablet dissolution accessory for pharmaceutical quality control.

## Specifications

Further product information available soon.

Specifications	T110+	T112+
Optical System	Dual Monochromator Double Beam	Dual Monochromator Double Beam
Light Source	D2 Lamp – UV Region W Lamp – Visible Region Hg Lamp – Wavelength Correction	D2 Lamp – UV Region W Lamp – Visible Region Hg Lamp – Wavelength Correction
Wavelength Range	185~900nm	185~900nm
Wavelength Accuracy	$\pm 0.2\text{nm}$	$\pm 0.2\text{nm}$
Wavelength Reproducibility	$\leq 0.1\text{nm}$ (D2 lamp)	$\leq 0.1\text{nm}$ (D2 lamp)
Spectral Bandwidth	0.1 – 50.nm Continually Adjustable	0.1 – 50.nm Continually Adjustable
Stray Light	$\leq 0.0001\%T$ (NaI, 220 nm) $\leq 0.00004\%T$ (NaI, 220 nm)	$\leq 0.0001\%T$ (NaNO <sub>3</sub> , 360 nm) $\leq 0.00002\%T$ (NaNO <sub>3</sub> , 360 nm)
Photometric Range	-6.0Abs~6.0Abs	-8.0Abs~8.0Abs
Photometric Accuracy	$\pm 0.004A$ @2.0 A $\pm 0.003A$ @1.0A $\pm 0.002A$ @0.5 A $\pm 0.3\%$	$\pm 0.004A$ @2.0 A $\pm 0.003A$ @1.0A $\pm 0.002A$ @0.5 A $\pm 0.3\%$
Photometric Reproducibility	$\leq 0.002A$ @2.0 A $\leq 0.0008A$ / 1.0A $\leq 0.0004A$ / 0.5A $\leq 0.1\%$	$\leq 0.002A$ @2.0 A $\leq 0.0008A$ / 1.0A $\leq 0.0004A$ / 0.5A $\leq 0.1\%$
Baseline Flatness	$\pm 0.0008\text{Abs}$	$\pm 0.0005\text{Abs}$
Noise	0% Noise: $\leq 0.01\%$ ; 100% T Noise: $\leq 0.1\%$ ;	0% Noise: $\leq 0.01\%$ ; 100% T Noise: $\leq 0.1\%$ ;
Communication port	RS232C, USB, Wifi	RS232C, USB, Wifi

We reserve the right to modify, revise/upgrade, suspend or discontinue any Product in whole or in part, either temporarily or permanently, with or without notice.



PG Instruments Ltd, Alma Park, Wibtoft, Leicestershire, LE17 5BH, England

Tel: 0044 (0) 1455 220131 Fax: 0044 (0) 1455 220025

www.pginstruments.com Email: sales@pginstruments.com

V1-02/13