



C30/C30M

PORTABLE SPECTROMETER

The C30 Portable Spectrometer is a compact portable instrument based on advanced CCD detection technology. Whilst being highly compact the instrument boasts all of the features of a conventional bench-top Spectrophotometer including Spectrum Scanning, Photometric, Quantitative and Kinetic Methods.

A Windows CE embedded operating system and touch screen TFT interface allow for ease of use and extensive data storage. Field measurement data can be transferred from internal instrument storage to a PC via USB connection and the C30 Data Viewer Software which offers an extensive tool set for data interpretation and reporting. The C30 Spectrometer is supplied with a rugged carry case and a wide range of accessories suited to your sampling requirements.

The C30M differentiates itself from the standard C30 by means of pre-programmed test methods for the Spectroquant® series of reagent test kits from Merck Chemicals.

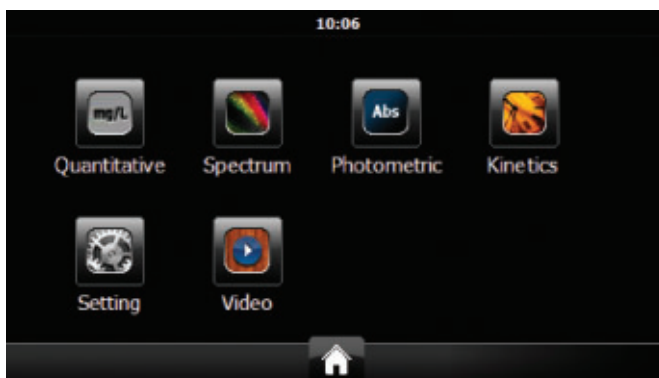
PG Instruments have selected the Spectroquant® Test Kits from Merck Chemicals as a partner in order to offer an application specific instrument, targeted specifically for environmental measurements. The C30M Spectrometer is supplied pre-programmed with calibration data for each of the Spectroquant® test methods.



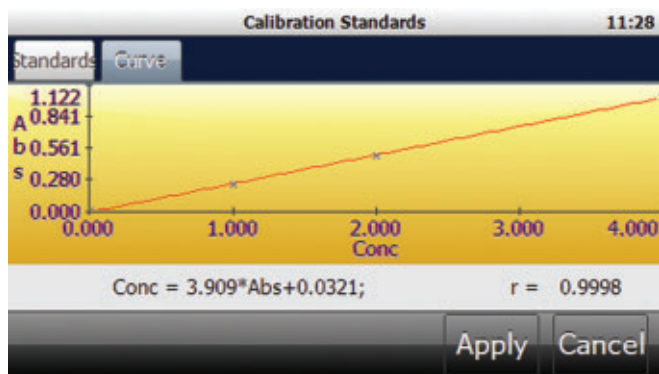
Spectroquant® test kits can offer an analytical solution for the following parameters by means of 130 different test kits:

- Drinking water
- Surface water
- Process water
- Municipal or industrial wastewater
- Beverages
- Disinfectant control

Note: Spectroquant is a registered trademark of Merck Chemicals, Germany.



Windows CE Based Operating System with 320 x 240 touch screen TFT Interface.

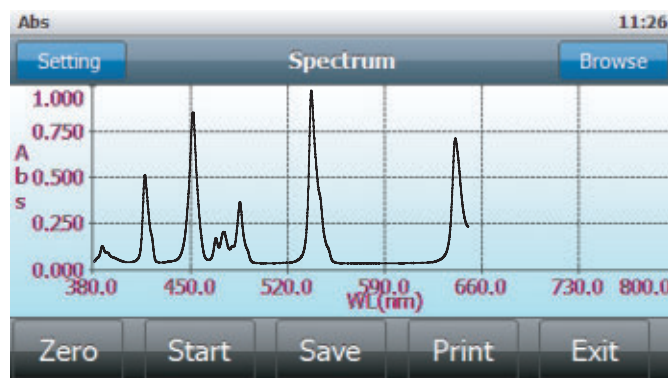


Use the Quantitative workspace to construct calibration curves, and measure concentration of unknown samples. Curves can be constructed in 1st – 4th order, whilst both methods and measurement data can be saved to instrument memory.

test2 - Browse

Sel	Name	Conc.	Abs	Measure Time	Sample Info
	sample 1	2.93mg/L	0.117	03/02/2012 10:11	;
	sample 2	2.31mg/L	0.409	10/02/2012 10:58	;
	sample 3	2.39mg/L	0.372	10/02/2012 10:58	;

Delete Print All Export



The Spectrum workspace allows high speed spectral scanning, with zoom and peak identification tools. Spectral Scans can be performed in the field, stored to instrument memory and later transferred to the C30 Data Viewer Software for further inspection and reporting.

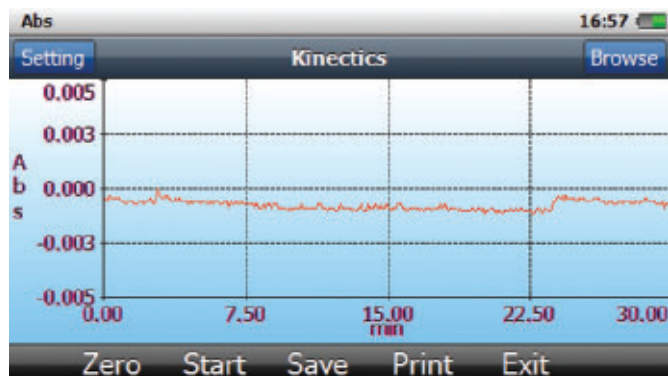
Abs

Setting Photometry (unsaved) Browse

Sel.	ID	Mode	500.0nm	K ⁺
	1	Abs	22.000	44.000
	2	Abs	51.000	102.000
	3	Abs	36.000	72.000
	4	Abs	10.000	20.000
	5	Abs	72.000	144.000

Zero Start All Save Print Del. Exit

Use the Photometric workspace to quickly and easily perform fixed wavelength measurements in either Absorbance or Transmission. Set a K factor where multiplications are required to determine sample concentration. Once the measurement is complete store to instrument memory for future recall.



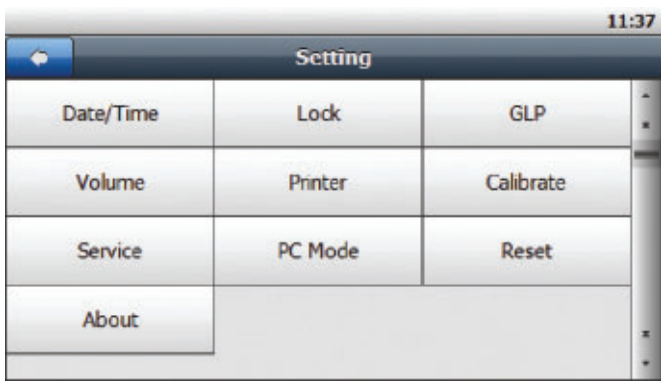
The Kinetic workspace enables the measurement of Absorbance or Transmission as a function of time. Use the zoom and peak pick features to obtain a better view of the Kinetic curve. Measurement data can be saved and recalled at any time.



User and admin rights are easily controlled from the GLP feature in the settings menu. Create user groups and specify their privilege level then add new users to a specified group.



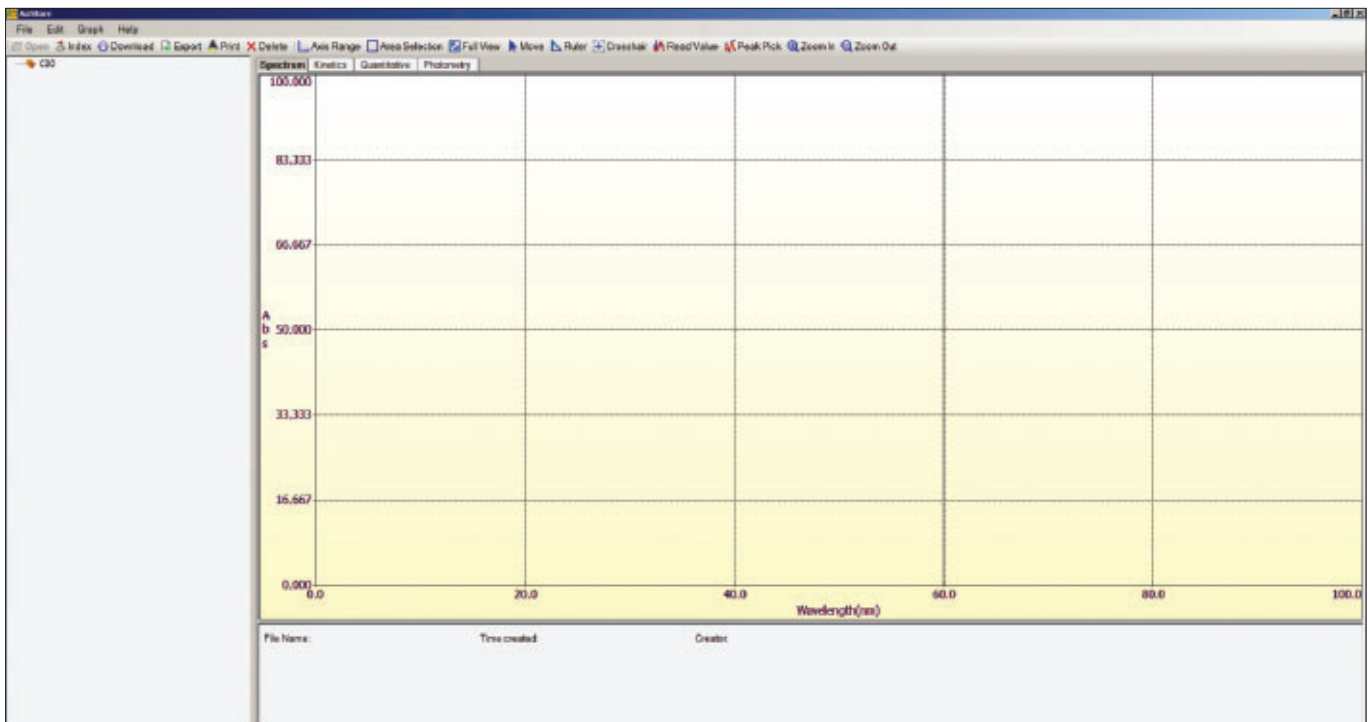
Use the universal cell holder to measure various pathlength rectangular cells and rounds test tubes accommodating all of your sampling requirements.



Control instrument configuration from the settings menu.



Use the fibre dip probe for in-situ sample measurements.



Once all of the required field analysis has been performed and measurement data stored to instrument memory the Spectrometer can be connected to the C30 Data Viewer Software via USB for transfer of analysis data from all of the instrument workspaces. Use the Data Viewer Software to further interpret analysis results, export data into a wide variety of formats and produce analysis reports for storage or printing.

Specifications

Light Source	Convergent tungsten lamp with 7000hr lifespan.	
Measurement Workspaces	Spectrum Quantitative Kinetics Photometric	
Optical System	Polychromatic with concave holographic grating	
Detector	CCD Sony ILX511 2048 Pixels	
Sampling Accessories	Fibre Dip Probe with 10mm and 20mm pathlength tips Rectangular Cuvette Holder Cylindrical Test Tube Holder	
Power supply	Built-in re-chargeable battery with 5 hr usage	
Printer	Micro printer (optional)	
Operating system	Windows Embedded CE 6.0 with 2GB Flash Memory	
Input/display	320 x 240 True Colour TFT Touch Screen	
Specifications	Wavelength range	380nm – 800nm
	Wavelength resolution	0.4nm
	Spectral bandwidth	4±0.8nm
	Wavelength accuracy	±1.0 nm
	Wavelength repeatability	≤0.1nm
	Baseline flatness	±0.005Abs
	Noise	≤0.5%
	Drift	≤1.0%
	Stray light	≤0.5%
	Photometric accuracy	±1.0%
	Photometric repeatability	≤0.3%
Dimension	280 x 170 x 110mm	
Environmental temperature	Operating environment 5-30°C Storage environment -20-55°C	