



**Spectronic Camspec Ltd**

## The M108 Programmable Visible Spectrophotometer

**The UK Based Laboratory Instrument Specialists**



This is the latest addition to our M100 Series of Visible Spectrophotometers. The replacement of the manual wavelength/filter control knob of the popular M107, by processor controlled stepper motors allows a step change in capabilities. The M108 has a 4 line x 20 character display and a 9-button keypad to allow easy use and full access to this intelligent spectrophotometer.

- Stepper motors for wavelength and filters
- Stores up to 200 methods/results
- Concentration calibration: up to 8 standards up to 3 replicates linear or linear through zero
- USB for PC control and RS232 serial output for printer
- Data output includes method number and name, wavelength, date and time, %T, Abs concentration, unit
- Selectable wavelength calibration and dark current measurement
- 325 - 1000nm wavelength range
- 5nm bandwidth
- Low stray light (0.1%T at 340nm)
- Large sample compartment (up to 50mm pathlength cells)
- Large selection of accessories
- Manual 4-cell changer, with a pair of 10mm glass cells included
- PC Application Software option for concentration curves, timescan & wavelength scanning

### Technical Specifications

**Display** - 4 lines x 20 character LCD

**Light source** - Tungsten-Halogen

**Monochromator** - 1200 lines/mm grating

**Detectors** - Silicon Photodiode

**Wavelength Range** - 325 - 1000nm

**Wavelength Accuracy** -  $\pm 2$  nm

**Wavelength Resolution**

**Wavelength Repeatability** -  $\pm 1$  nm

**Noise** -  $< 0.001A$  @ 500nm 0A

**Zero Drift** -  $< 0.003A$  per hour after warm-up

**Baseline Flatness**

**Bandpass** - 5 nm

**Stray Light** -  $< 0.1\%T$  @ 340 nm

**Photometric Accuracy** -  $\pm 1\%$  0-2 A

**Photometric Range** - -1 to 2.5A, 0-125%T and -9999C and +9999C

**Printer Interface** - RS 232 for printer

**Computer Interface** - USB for PC control

**Power Requirements** - 110/120V, 220/230V, 50/60 Hz, 60VA

**Dimensions** - 420 x 330 x 180mm packed 645 x 535 x 370mm

**Weight** - 7Kg packed 10Kg

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The M107/M108 sample compartment (155 x 70 x 85mm) enables accessories to be exchanged in a few seconds.

**10mm single cell or flowcell holder, P/N 107-102.** Accepts standard rectangular and 4mm semi-micro 10mm pathlength cells, or a 10mm pathlength flowcell with Z=8.5mm.

**Test-tube holder, P/N 107-101.** This V-type round test-tube holder holds tubes of diameters from 10 to 25mm. The access hole in the sample compartment lid means that any height test-tube can be used. The design of the holder ensures the tube is always central in the light beam. This means that the light beam is not bent and so remains aligned with the detector. This accessory is mounted on the same base-plate as the single cell holder.

**Thermostatted cell holder and front panel, P/N 107-105.** Accepts a standard rectangular 10mm pathlength macro or 4mm semi-micro cell. Requires connection to an external circulating water bath.

**Standard Four-position manual cell changer, P/N 107-103.** (Supplied with M108). Accepts four standard rectangular 10mm pathlength macro or 4mm semi-micro cells. The mechanical locating of the cell positions is very positive, giving excellent reproducibility.

**Long pathlength Four-position manual cell changer, P/N 107-104.** Accepts four standard rectangular 10-50mm pathlength macro cells.

**M108 PC Application Software, P/N 108-110.** For up to 3rd order concentration curves, timescans and wavelength scanning.

**Printer, P/N 330-100.** 40 character impact printer including battery charger, spare ribbon and spare paper roll.



**M107 / M108 Accessories**

SPECTRONIC CAMSPEC LTD AN ISO 9001:2015 REGISTERED COMPANY

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