# Cole-Parmer®

# SP-200 Series Spectrophotometers

- Multi-parameter display with wavelength and photometric readouts
- Easy and intuitive operation
- Entry-level single beam visible and UV/Visible non-scanning spectrophotometers ideal for routine analysis



The SP-200 series spectrophotometers include model SP-200-VIS that covers the visible region of the spectrum, SP-250-VIS model with domed lid, and model SP-200-UV that uses a pulsed xenon lamp to extend the wavelength range into the UV region of the spectrum. All models have measurement modes for absorbance, percent transmittance and concentration. This makes the spectrophotometers ideal for basic photometric applications in schools and colleges, as well as in quality control laboratories.

#### **Key Features**

- · Multi-parameter display with wavelength and photometric readouts
- Small footprint
- Wide range of sampling accessories
- Domed lid of SP-250-VIS accepts tubes up to 105 mm
- SP-200-UV utilizes a high quality pulsed xenon lamp
- Easy and intuitive operation
- 3 year warranty

#### Versatile and Flexible Accessories

The SP-200 series has been specifically designed to accept a wide range of accessories. To accommodate various sample volumes, there is a wide range of passive accessories available including an adjustable cuvette holder which can hold cuvettes between 10 and 100 mm, a test tube holder for test tubes with diameters between 16 and 24 mm, and a micro-cuvette holder with a reduced aperature for small sample volumes. For multiple samples, we offer a four-position rotary cuvette holder.



Multiple measurement modes available



Push-button controls with simple user interface



Versatile and flexible accessories



Easy and intuitive operation

#### Temperature Control

Where temperature control is important, we offer a water heated cuvette option which requires a water bath and circulator (not supplied). For sampling applications, we offer an external sipper pump system which can be programmed to deliver controlled and reproducible sample volumes into the chamber of a flow-through cuvette, along with air and segmentation rinse cycles.

#### Design

The SP-200 series spectrophotometers are small and lightweight, making them easy to store or move to different locations within the laboratory. These instruments are easy to navigate, using push buttons to move around the simple user interface.



#### **Technical Specifications**

| Model                 | SP-200-VIS      | SP-250-VIS      | SP-200-UV                |
|-----------------------|-----------------|-----------------|--------------------------|
| Wavelength range      | 320 to 1000 nm  | 320 to 1000 nm  | 198 to 1000 nm           |
| Wavelength resolution | 1 nm            | 1 nm            | 1 nm                     |
| Wavelength accuracy   | ±2 nm           | ±2 nm           | ±2 nm                    |
| Spectral bandwidth    | 8 nm            | 8 nm            | 8 nm, 6 nm over UV range |
| Transmittance         | 0 to 199.9% T   | 0 to 199.9% T   | 0 to 199.9% T            |
| Absorbance            | –0.3 to 1.999 A | -0.3 to 1.999 A | -0.3 to 1.999 A          |
| Accuracy              | ±1% T           | ±1% T           | ±1% T                    |
| Resolution            | 0.1% T, 0.001 A | 0.1% T, 0.001 A | 0.1% T, 0.001 A          |
| Stray light           | <0.5% T         | <0.5% T         | <0.5% T at 220 and 340 m |

### Technical Specifications (continued)

| Model                    | SP-200-VIS                                 | SP-250-VIS                                | SP-200-UV                                  |  |
|--------------------------|--|---|--|--|
| Noise                    | <1%  | <1%                                       | <0.001 A at 0 A at 400 nm                  |  |
| Stability                | 1%/h after 15 minutes                      | 1%/h after 15 minutes                     | <0.002 A/h after 30 minutes                |  |
| Concentration range      | -300 to 1999                               | -300 to 1999                              | -300 to 1999                               |  |
| Concentration resolution | 0.1 to 1                                   | 0.1 to 1                                  | 0.1 to 1                                   |  |
| Units                    | ppm, mg/L, g/L, M, %, blank                | ppm, mg/L, g/L, M, %, blank               | ppm, mg/L, g/L, M, %, blank                |  |
| Factor                   | 0 to 999.9, 1000 to 9999                   | 0 to 999.9, 1000 to 9999                  | 0 to 999.9, 1000 to 9999                   |  |
| Light source             | Tungsten halogen lamp                      | Tungsten halogen lamp                     | Xenon lamp                                 |  |
| Outputs                  | Analog and RS-232                          | Analog and RS-232                         | Analog and RS-232                          |  |
| Power                    | <50 W                                      | <50 W                                     | <50 W                                      |  |
| Size (W x H x D):        | 36.5 x 16.0 x 27.2 cm (14.4 x 6.3 x 10.7") | 26.2 x 11.4 x 19.3 cm (10.3 x 4.5 x 7.6") | 36.5 x 16.0 x 27.2 cm (14.4 x 6.3 x 10.7") |  |

### Ordering Information

| Cole-Parmer<br>model | Jenway model                                   | Jenway<br>legacy SKU | Item number |
|----------------------|--|----------------------|-------------|
| SP-200-VIS           | 6300 Visible Spectrophotometer                 | 630501               | 83054-05    |
| SP-250-VIS           | 6320D Visible Spectrophotometer with Domed Lid | 632501               | 83054-07    |
| SP-200-UV            | 6305 UV-Visible Spectrophotometer              | 635001               | 99968-68    |

#### Accessories

| Description   | Jenway<br>legacy SKU | Item number |
|---|----------------------|-------------|
| 4 position manual cuvette holder  | 634001               | 79000-67    |
| Sipper pump, supplied with inlet and outlet tubing (230V/50Hz)            | 632001               | 83061-20    |
| Sipper pump, supplied with inlet and outlet tubing (110V/60Hz)            | 632031               | 83061-21    |
| 10x10mm path length cuvette holder  | 630204               | 83070-41    |
| 10mm cuvette and 16/24mm test tube holder                                 | 637071               | 83070-43    |
| 10 to 100mm adjustable path length cuvette holder                         | 630005               | 83056-80    |
| Micro-cuvette holder  | 630304               | 83056-82    |
| Water heated 10x10mm single cuvette holder                                | 648001               | 83058-99    |
| Dual cell holder for 10mm cuvettes and 12.7mm diameter tubes (6320D ONLY) | 632511               | 83070-45    |
| Storage/carry case (not for use with 6320D)                               | 033290               | 83061-24    |
| Dust cover  | 630028               | 83054-70    |
| RS232 to USB converter for use with computer without a serial port        | 037551               | 99959-79    |
| Interface cable kit   | 542009               | 53020-52    |

#### coleparmer.com

USA: +1.800.323.4340 +1.847.549.7600 Canada: +1.800.363.5900 China: +86.21.5109.9909 France: +33 (0) 1486 37800 Germany: +49 (0) 9377 92030 India: +1.800.266.1244 Italy: +39 (0) 2 84349215 UK: +44 (0) 1480.272279

All other countries: +1.847.549.7600

