

Thermo Scientific SpectraSystem

P-2000 Specifications

P4000,P2000,P200:	Gradient pumps using a dual in-line and floating piston design, bayonet-mounted liquid ends, and patented ceramic check valves.
Physical:	14.5" (37 cm) x 6" (15 cm) x 18.5 (47 cm) (H x W x D) 38.6 lb. (18 kg)
Wetted Surfaces:	316 stainless steel, analytical and narrow-bore PEEK, semi-prep other surfaces for all pumps: Teflon [®] , Tefzel [®] , sapphire, polyethylene
Delay Volume:	< 800 µL, analytical < 500 µL, narrow-bore (P4000 and P2000 only)
Flow Rate Range:	0.01 - 10.00 mL/min, analytical or narrow-bore pumps 0.01 - 30.00 mL/min, semi-prep PEEK pumps
Flow Accuracy:	< 1% at 1.0 and 4.0 mL/min, analytical or semi-prep < 1% at 0.2 and 1.0 mL/min, narrow-bore
Flow Precision:	Typically < 0.2% at 0.5 mL/min or greater
Gradient Linearity:	< 1.0% at 1.0 mL/min from 5 - 95% composition, analytical < 1.0% at 0.5 mL/min from 5 - 95% composition, narrow-bore
Compositional Accuracy:	< 1.0% at 1.0 mL/min from 5 - 95% , composition analytical < 1.0% at 0.5 mL/min from 5 - 95% composition, narrow-bore
Compositional Precision:	Typically < 1.0% at 1.0 mL/min analytical Typically < 0.2% at 0.3 mL/min, narrow-bore
Pressure Range:	42 MPa or 420 bar or 6000 psi, analytical or narrow-bore 28 MPa or 280 bar or 4000 psi, semi-prep
Pressure Pulsation:	Typically < 1.0% at 1 mL/min
Method Files:	9 method + 1 Shutdown + 1 Develop, P4000 4 method + 1 Shutdown, P2000 1 method + 1 Shutdown, P200
Communications:	Remote Inputs: Ready, Run, Stop Timed Events Analog Pressure output RS-232 (P4000 and P2000 only)
Environmental	10-40 °C 5-95% RH noncondensing
Power:	115/230 VAC, 50/60 Hz T4A 200VA
Safety/EMC Compliance:	CSA, TÜV, FCC, CE Mark, Low Voltage Directive

Thermo Scientific SpectraSystem

Specifications

SCM1000

Specifications

Method

Vacuum Membrane

Solvent Channels

Four

Solvent Contact Materials

Teflon® AF, TFE and titanium

Volume Per Channel

12 mL

Free Flow Per Channel

5 mL/min H₂O with 2 ft. head pressure

Dimensions

36 × 15 × 55 cm (H × W × D)

Weight

13 kg

Power Requirements

100/120/220/240 VAC nominal; 50 to 60 Hz

Product Certification

TUV CUS

TUV CE Mark

FCC (EMI)

UV2000

Specifications

Optical Design

Concave holographic grating monochromator, with dual-beam optics; pre-aligned, front-mounted lamps and flowcell

Noise

< ± 1.0 × 10⁻⁵ AU @ 254 nm, 1.0 sec rise time, single-wavelength mode

Drift

< 2 × 10⁻⁴ AU/hour after warm-up @ 254 nm

Wavelength Range

D2 LAMP

190–380 nm (UV1000)

190–365 nm (UV2000)

W LAMP

366 to 800 nm

Wavelength Accuracy

± 1.0 nm

Wavelength Precision

± 0.1 nm

Spectral Bandwidth

6 nm

Absorbance Range

0.0005–3.0 AUFS

Absorbance Linearity

Better than 5% to 2.0 AU @ 257 nm

Lamps

Deuterium and Tungsten (Tungsten optional on UV1000)

Analog Outputs

UV1000

1 unrangeable integrator output (1.0 AU/V);

1 range-selectable over entire absorbance range

UV2000

2 outputs, range-selectable over entire absorbance range

Method Files

Protected in non-volatile memory

Communications

Remote Inputs

Run, Stop and Zero

Outputs

Ready and Accessory Relay

Ambient Environment

10–40 °C, 5–95% relative humidity (non-condensing)

Dimensions

37 × 15 × 47 cm (H × W × D)

Weight

18 kg

Power Requirements

100/120/220/240 VAC nominal; 200 VA; 50 to 60 Hz

Product Certification

TUV CUS

TUV CE Mark

FCC (EMI)

**Noise and drift specification determined using the standard 10 mm analytical flowcell.*