



www.IetLtd.com Proudly serving laboratories worldwide since 1979
CALL +847.913.0777 for Refurbished & Certified Lab Equipment

2998 Photodiode Array Detector

Physical specifications

Attribute	Specification
Height	19.4 cm (7.64 inches)
Depth	61 cm (24.0 inches)
Width	34.3 cm (13.5 inches)
Weight	12.6 kg (27.75 pounds)

Environmental specifications

Attribute	Specification
Operating temperature	4 to 40 °C (39.2 to 104 °F)
Operating humidity	<95%, noncondensing
Shipping and storage temperature	-30 to 60 °C (-22 to 140 °F)
Shipping and storage humidity	20 to 85%, noncondensing
Acoustic noise (instrument generated)	<50 dBA

Electrical specifications

Attribute	Specification
Protection classa	Class I
Overvoltage categoryb	II
Pollution degreec	2
Moisture protectiond	Normal (IPXO)
Line voltages, nominal	Grounded AC
Voltage range	100 to 240 VAC nominal
Frequency	50 to 60 Hz
Fuse	Two fuses, 100 to 240 VAC, 50 to 60-Hz, F 3.15-A, 250-V (fast-blow), 5 × 20 mm (IEC)
Power consumption	185 VA nominal

a. **Protection Class I** – The insulating scheme used in the instrument to protect from electrical shock. Class I identifies a single level of insulation between live parts (wires) and exposed conductive parts (metal panels), in which the exposed conductive parts are

connected to a grounding system. In turn, this grounding system is connected to the third pin (ground pin) on the electrical power cord plug.

b. Overvoltage Category II – Pertains to instruments that receive their electrical power from a local level such as an electrical wall outlet.

c. Pollution Degree 2 – A measure of pollution on electrical circuits, which may produce a reduction of dielectric strength or surface resistivity. Degree 2 refers only to normally nonconductive pollution. Occasionally, however, expect a temporary conductivity caused by condensation.

d. Moisture Protection – Normal (IPXO) – IPXO means that *no* Ingress Protection against any type of dripping or sprayed water exists. The X is a placeholder that identifies protection against dust, if applicable.

Performance specifications

Attribute	Specification
Wavelength range	190 to 800 nm
Optical resolution	1.2 nm
Photodiodes	512
Digital resolution	1.2 nm/pixel
Wavelength accuracy	±1.0 nm
Wavelength repeatability	±0.1 nm
Digital filter	Variable with data rate
Second-order filter	Fixed 371 nm to 800 nm
Noise – UV (dry)	10 µAU peak to peak Filter = 1 second, 30-second segments Wavelength = 254 nm Bandwidth = 3.6 nm (3-pixel bunch) Flow cell = analytical, 10 mm Data rate = 2 Hz
Noise – UV (weta)	10 µAU peak to peak Filter = 1 second, 30-second segments Wavelength = 254 nm Bandwidth = 3.6 nm (3-pixel bunch) Flow cell = analytical, 10 mm Data rate = 2 Hz Flow rate = 0.5 mL/min Solvent = water/acetonitrile, 90/10
Drift – UV (dry)	1000 µAU/hr Filter = 1 second, 30-second segments Wavelength = 254 nm Bandwidth = 3.6 nm (3-pixel bunch) Warm-up time = 60 minutes Environmental stability = ±2 °C/hr Flow cell = analytical, 10 mm

	Data rate = 2 Hz
Linearity	< 5% at 2.0 AU, propylparaben series at 257 nm, analytical flowcell
Data rate	1, 2, 5, 10, 20, 40, and 80

Waters 2998 PDA flow cell specifications

Description	Volume (µL)	Pathlength (mm)	Tubing internal diameter (inches) Inlet - Outlet	Pressure rating (bar/psi)
Analytical	9.3	10	0.010 - 0.010	69/1000
Auto-purification • + analytical + prep	12.4	0.5	0.010 - 0.040 0.040	138/2000
Microbore	4.1	8.0	0.005 - 0.005	69/1000
Semi-preparative	18.3	3.0	0.020 - 0.020	69/1000
Cuvette	N/A	10.0	N/A - N/A	N/A



www.IetLtd.com Proudly serving laboratories worldwide since 1979
CALL +847.913.0777 for Refurbished & Certified Lab Equipment