

Smartline

► UV Detector 2550



Multiple wavelength detector

This spectrophotometric detector offers high sensitivity and baseline stability for HPLC applications including fast LC methods. With its high speed scanning design, up to four different wavelengths can be monitored simultaneously while acquiring spectral data from 190 to 900 nm. Best-in-its-class values for noise, drift, and linearity are achieved through smart optical bench technology and the use of optimized components. Enhanced GLP features include automatic wavelength verification and lamp recognition.

The Smartline UV Detector 2550 offers ...

- highly sensitive analysis
- up to four wavelengths
- narrow optical bandwidth for high spectral resolution
- lowest drift values
- up to 80 Hz data rate
- automatic wavelength verification (built-in holmium oxide filter)

A remarkable linear range – of greater than 3 AU allows for simultaneous determination of main analytes and impurities

Automatic selection – of optimal integration time

Wide wavelength range – The standard deuterium lamp can be exchanged by a tungsten halogen lamp for the VIS wavelength range. The detector is also available in a dual-lamp version (possible configurations: UV, VIS, UV-VIS)

Flexible control – through touch pad or via RS-232 or LAN by PC with KNAUER ChromGate® or ClarityChrom® software

Technical data

Detector type	fast scanning monochromator spectrophotometer, double beam
Light source	standard: deuterium lamp; optionally available: tungsten-halogen or dual-lamp upgrade
Number of signals	1–4
Maximum data rate	one signal, 80 Hz (LAN) or 10 Hz (RS-232)
Wavelength range	190–900 nm, depending on lamp type
Optical bandwidth	< 5 nm
Wavelength accuracy	±1.5 nm, auto-calibration with deuterium lines, verification with holmium oxide filter
Wavelength precision	0.4 nm RSD
Noise*	± 0.5 × 10 ⁻⁵ AU at 254 nm
Drift*	< 0.5 × 10 ⁻⁴ AU/h at 254 nm
Linearity*	0–3 AU
Wavelength scan	fast scan, depending on set resolution and number of signals
Integration time	self-adjusting
Analog output (integrator)	2 signals, 0 to 5 V, 20-bit
Level/Event outputs	e.g. for stand-alone solvent recycling with optional solenoid valve
Control	digital: RS-232, LAN; analog: remote control strip, touch pad
Programming	timed: wavelength, events, switching valves, program links, wake-up program (lamp); 20 programs, 99 lines max.
GLP function	detailed report incl. lamp recognition, lamp operation time, and lamp ignitions
Display	LCD, 2 lines, 24 characters each
Power supply	90–260 V, 47–63 Hz, max. 70 VA
Dimensions/Weight	226 x 135 x 410 mm (W x H x D) / 6.0 kg

*according to ASTM E1657-98

Ordering information

Order no.	Detector
A5190	Smartline UV Detector 2550, incl. deuterium lamp, flow cell excluded
A5191	Smartline UV Detector 2550, dual-lamp version, flow cell excluded
	Analytical Flow Cells¹
A4061	10 mm, 10 µl, 1/16", stainless steel/quartz/PFA, with heat exchanger, < 20 ml/min, < 300 bar (4 350 psi)
A4042	3 mm path length, 2 µl, 1/16" connector, stainless steel/quartz/PTFE, < 50 ml/min, < 300 bar (4 350 psi)
	Preparative Flow Cells¹
A4069	0.5 mm, 1.7 µl, 1/16", stainless steel/quartz/PTFE, < 250 ml/min, < 200 bar (2 900 psi)
A4066	0.5/1.25/2 mm selectable, 1.7/4.3/6.8 µl, 1/8", stainless steel, < 1 000 ml/min, < 200 bar (2 900 psi)
A4068	0.5/1.25/2 mm selectable, 1.7/4.3/6.8 µl, 1/4", stainless steel, < 10 000 ml/min, < 200 bar (2 900 psi)
	U-Z View™ Micro Flow Cells
A4091	8 mm path length, 0.14 µl, 1/16" connector, fused silica, < 0.1 ml/min, < 500 bar (7 250 psi)
A4092	8 mm path length, 0.035 µl, 280 µm connector, fused silica, < 0.01 ml/min, < 500 bar (7 250 psi)

More micro flow cells are available on request.

¹⁾ Specifications: path length, volume, capillary connection, wetted materials, max. flow rate, max. pressure. These flow cells are also available in PEEK except models with heat exchanger and 1/4" connectors. Please ask for details.

Technical data are subject to change without notice.

Visit www.knauer.net for details on complete HPLC systems, HPLC columns, and osmometers.

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