

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
- automatic wavelength verification (holmium oxide filter)
- wide range of flow cells for application flexibility

Features

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	80 Hz
Wavelength Range	190 – 900 nm, depending on lamp type
Optical Bandwidth	< 5 nm
Wavelength Accuracy	±1 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*	> 3 AU
Wavelength Scan	Fast scan, depending on set resolution and number of signals
Integration Time	500 µs – 1.0 s, automatic selection
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 (W x H x D)	226 x 135 x 410 mm
Weight	6.0 kg

*according to ASTM E1657-98

Ordering Information

Order No.	Detector
A5190	Smartline UV Detector 2550, incl. deuterium lamp, flow cell excluded
upon request	tungsten-halogen lamp upgrade, incl. socket, pre-adjusted
Order No.	Analytical Flow Cells¹⁾
A4061	10 mm, 10 µl, 1/16", stainless steel/quartz/PFA, with heat exchanger, < 20 ml/min, < 300 bar (4350 psi)
A4042	3 mm path length, 2 µl, 1/16" connector, stainless steel/quartz/PTFE, < 50 ml/min, < 300 bar (4350 psi)
Order No.	Preparative Flow Cells¹⁾
A4069	0.5 mm, 1.7 µl, 1/16", stainless steel/quartz/PTFE, < 250 ml/min, < 200 bar (2900 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 (2900 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 (2900 psi)
Order No.	U-Z View™ Micro Flow Cells
A4091	8 mm path length, 0.14 µl, 1/16" connector, silica, < 0.1 ml/min, < 500 bar (7250 psi)
A4092	8 mm path length, 0.035 µl, 280 µm connector, silica, < 0.01 ml/min, < 500 bar (7250 psi)
Order No.	Capillary Electrophoresis Cell
A4097	1 mm path length, 280 µm connector, stainless steel

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.

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Wissenschaftliche Gerätebau
Dr. Ing. Herbert Knauer GmbH
Hegauer Weg 38
D-14163 Berlin, Germany

Your local distributor

Telephone: +49 (0)30 809727-0
Telefax: +49 (0)30 8015010
E-Mail: info@knauer.net
Internet: www.knauer.net