

Dionex AD25

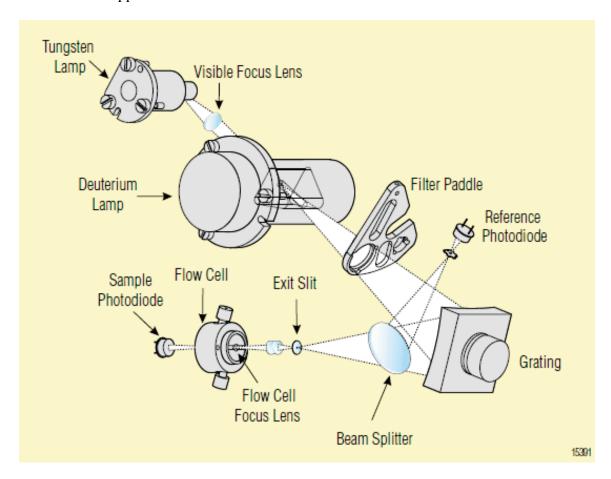


The Dionex AD25 is a dual beam, variable wavelength absorbance detector for Dionex Ion and Liquid Chromatography Systems. Broad spectral capability is provided by two light sources: a deuterium lamp for ultraviolet wavelengths, and a tungsten lamp for visible detection. Validation of wavelength accuracy is accomplished efficiently using a built-in holmium oxide filter test. The AD25 can be operated at the front panel or automated with Dionex chromatography software.

Performance Features

- Deuterium and tungsten lamps provide operation over the entire wavelength range of 190–800 nm.
- Compact design for optimal plumbing of liquid flow path and minimal use of bench space.
- Built-in holmium oxide filter for automated wavelength verification.
- High signal-to-noise ratio for maximum sensitivity.
- Low baseline drift for reliable results.
- Excellent resolution yields high linearity.

- Integrated flow cell heat exchanger for thermal stability.
- Lamp lifetime monitor prevents downtime.
- Front access to pre-aligned lamps and flow cell to simplify detector maintenance.
- Available with 10-mm PEEK and SST flow cells for compatibility with a wide range of IC and HPLC applications.



The image of the tungsten lamp is focused through the aperature of the deuterium lamp. The combined light then passes through the filter paddle to the diffraction grating. The selected wavelength is partially reflected to the reference photodiode. The remaining light passes through the focus lens and flow cell to the sample photodiode where sample absorbance is measured.

AD25 OPTICS, ELECTRONICS, AND FLOW CELL SPECIFICATIONS

AD25 Optics

Optical System:

Forward, dual-beam monochromator with a concave holographic grating and reflective beamsplitter.

Light Source:

deuterium lamp (30 W) for UV range and tungsten lamp (10 W) for visible range.

Wavelength Range:

190-800 nm in 1 nm increments.

AD25 Electronics

Analog Output Ranges:

0.001-3.0 AU

Rise Time:

0.1-10 s

Full-scale recorder output:

1 V

Acquisition Ranging:

Full dynamic digital absorbance signal monitoring with CHROMELEONTM or PeakNetTM software.

Control Modes:

Local through relay closures or TTL. Remote control through CHROMELEON 6.0 or higher or PeakNetTM 5.11 or higher software.

AD25 Flow Cell

Cell:

PEEK or SST, fused silica

Cell Path Length:

10 mm

Heat Exchanger Volume:

 $14.5 \mu L$

Cell Volume:

10 μL PEEK, 13 μL SST

Maximum Flow Cell Operating Pressure:

300 psi, PEEK 500 psi, SST

PERFORMANCE SPECIFICATIONS

Wavelength Accuracy:

+/- 1 nm

Bandwidth:

< 5 nm

Linearity:

> 2 AU

Noise:

+/- 10.0 µAU peak-to-peak (254 nm, 2 s rise time, flowing water)

Drift:

 $< 100 \mu AU/h$

AD25 PHYSICAL SPECIFICATIONS

Power Requirements:

90–265 V ac, 47–63 Hz (power supply is autosensing, no voltage adjustment required).

Operating Temperature Range:

4–40 °C (40–104 °F); cold room (4 °C) compatible as long as system power remains on.

Operating Humidity Range:

5–95% relative, noncondensing Dimensions (h x w x d): 17 x 22.5 x 42 cm (6.6 x 8.8 x 16.4 in)

Weight:

10.9 kg (24 lb.)

Part Numbers

AD25 with PEEK flow cell 054106 AD25 with SST flow cell 056485

