The PDA is a high-resolution, 1024-element photodiode array detector. The PDA simultaneously provides 1-nm resolution with the noise and drift performance previously available only in monochromator-based detectors. It operates using Chromeleon® software, which provides detector control, spectral overlays, and 3-D plotting. The high resolution and low noise performance of the PDA also make it ideal for the most sensitive and accurate library searches and peak purity analyses.

**Performance Features**

- Extremely accurate compound confirmation with 1024 element, 1-nm resolution, photodiode array.
- Flexibility in both UV and Vis applications with 190–800 nm wavelength range.
- Low noise and high light intensity over the full spectral range using deuterium and tungsten lamps.
- Fast and accurate wavelength verification using built-in holmium oxide filter.
- Excellent reliability and reproducibility with low baseline drift (< 500 µAU/h).
- Simplified routine maintenance through front access to prealigned cells and lamps.
- Full control and flexible data collection through Chromeleon software (version 6.6 or higher).
- Easily monitor detector status for maximum uptime through five front-panel LEDs.
- Supports alternate programmable data collection with four analog outputs.

Now sold under the Thermo Scientific brand
Figure 1. Light from the tungsten lamp is focused through an aperture in the deuterium lamp. The combined light then passes through the flow cell to the filter paddle, through the focusing lens, to the slit, and then to the diffraction grating and PDA.

Figure 2. The eight fingers of the benzene spectrum demonstrate the excellent spectral resolution achieved with the 1024-element photodiode array and quality optics bench.

SPECIFICATIONS

Performance
Noise: < ±10 µAU (flowing water, 2-s rise time, 254 nm)
±15 µAU (flowing water, 2-s rise time, 520 nm),
Drift: <500 µAU/h
Wavelength Accuracy:
±1 nm, self-calibration with D2 lines, verification with built-in holmium oxide filter
Resolution: 1 nm
Linearity:
Less than 5% RSD up to 2.0 AU
Less than 2% RSD up to 1.5 AU

Optics
Photodiode Array: 1024 element
Pixel Resolution: 0.7 nm
Lamps: Tungsten and deuterium

Electronics
Analog Outputs:
Four, 0–3 AU, independently selectable, 1000 mV range

Physical Specifications
Power Requirements:
90–265 V ac, 47–63 Hz (autosensing, no adjustment needed)
Operating Temperature Range:
4–40 °C (40–104 °F) constant temperature
Operating Humidity Range:
5–95% relative, noncondensing
Dimensions (h × w × d):
17.4 × 44.4 × 50.3 cm
6.8 × 17.5 × 19.8 in.
Weight: 18.1 kg
40 lbs

ORDERING INFORMATION
To order, using the following part number, contact your local Dionex office or distributor nearest you. In the U.S., call (800) 346-6390. In other regions, refer to the phone numbers below.
PDA Photodiode Array Detector
PDA ………………………P/N 064447

FLOW CELL OPTIONS

<table>
<thead>
<tr>
<th>Cell</th>
<th>Material</th>
<th>Path Length</th>
<th>Cell Volume</th>
<th>P/N</th>
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<td>13 µL</td>
<td>056346</td>
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<tr>
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<td>056126</td>
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<tr>
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<td>3.1 µL</td>
<td>064169</td>
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<td>Semi-micro</td>
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<td>0.7 µL</td>
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